



# DIGBY WELLS

## ENVIRONMENTAL

Mr. Mellerson Pillay  
Divisional Manager  
Environmental and Legal Services  
Digby Wells Environmental

### 1 Education

- 2004: B.Soc.Sci (Hons) (Geography & Environmental Management), University of Natal
- 2003: BA (Environmental Studies and Political Science), University of Natal, South Africa

### 2 Employment

- 2013 – to date: Divisional Manager for Environmental and Legal Services.
- 2012 – 2013: Environmental Resources Management (ERM) Southern Africa as a Senior Project Manager.
- 2007 – 2012: Aurecon's Environmental and Advisory Services, South Africa as a Project Manager.
- 2005-2006 (travel gap years): Electoral Department of the London Borough of Hounslow, London, England as a Senior Administrator.
- 2003 – 2004: Vuka Uzithathe (NGO focussed on Rural and Gender Development and HIV/AIDS Training) as a Technical Assistant.

### 3 Experience

Mel Pillay is currently the Manager for the Environmental and Legal Services Department at Digby Wells Environmental. Mel has almost 10 years of professional experience in Environmental Assessment and Planning and Management. Having worked for a multi-disciplinary engineering and environmental consultancies, Mel has a competent understanding of the work effort and cross collaboration required for a successful multidisciplinary organisation. Mel has been involved in a number of Environmental Impact Assessments and has a particular interest in water resource management, mining, energy (including renewables), oil and gas and stakeholder engagement. Mel has considerable experience across a range of developmental and environmental sciences and has worked in South Africa, Namibia, DRC, Mali and Angola and is familiar with Regulatory Environmental Legislation in other parts of Africa. Mel is very well versed in the IFC Environmental and

Social Performance Standards (including IFC PS 2012) and the associated Equator Principles, which have informed the approach and standard for a number of ESIA processes that he has managed and coordinated.

## 4 Project Experience

### 4.1 Regulatory Impact Assessments

#### **Proposed construction of a Vanadium Mine, Concentrator Plant near Mokopane, South Africa, 2015 – to 2016 Project Manager**

- Appointed by VMIC to conduct an EIA process for the construction of a new Vanadium Mine and associated Plants. The proposed site is located on land owned by the Tribal Authority and is characterised with high heritage and biodiversity value. The project team consists of 18 specialists, including a Closure and Rehabilitation Assessment for the proposed mine. Additional components of the project included the review of the Social Labour Plan and Mining Right Application Report.

#### **Proposed construction of decant management measures at the decommissioned Eskom's Kilbarchan Coal Colliery in Newcastle, South Africa, 2014 - to date Project Manager**

- Appointed by Eskom to conduct a feasibility study for the proposed options for the management of decant emanating from the decommissioned colliery. Upon completion of the Feasibility Study, an Environmental Impact Assessment will be conducted for the treatment and management of decant from the decommissioned coal colliery. The scope of work also includes a Water Use License Application, Performance Assessment of historical rehabilitation, Waste License and Closure and Rehabilitation Study. The Project team comprised of 12 specialist studies.

#### **Proposed construction of a sludge disposal facility and associated pipeline route for the management of Acid Mine Drainage from the Eastern Basin of the Witwatersrand Gold Fields, South Africa, 2014 - 2016 Project Manager**

- Appointed by AECOM, through TCTA, to conduct the Environmental Impact Assessment process for the construction of a sludge disposal site and pipeline associated with the treatment of Acid Mine drainage from the Eastern Basin. The Project is located adjacent to a Ramsar Wetland (Blesbokspruit) and an Important Bird Area located at Marievale Bird Sanctuary. The Project included a waste licensing component, including sludge classification. The Project team comprised of 11 specialist studies.

### **Proposed construction of Gamsberg Zinc Mine, Concentrator and associated infrastructure, Northern Cape, South Africa, 2012 - 2013**

- Appointed by Black Mountain Mining (Part of the Vedanta Group Plc) to undertake an EIA and compile and ESMP for the construction of the Gamsberg zinc mine, Concentrator plant and associated transport and bulk service infrastructure. The key issues related to this project included the loss of biodiversity characteristic of a Global Biodiversity Hotspot (i.e. Succulent Karoo), groundwater contamination and draw down and air quality impacts. While facilitating post assessment meetings with adjacent landowners, Mel has successfully negotiated the agreement of the detailed monitoring and management plan, compensation plans and grievance mechanisms. The Project team comprised of 16 specialists, all of whom were managed to within their budget and timeframe. Mel's involvement also extended into the Biodiversity Offset, aligned with national and BBOP requirements. The EIA was undertaken to align with IFC Performance Standards for Environmental and Social Sustainability and Equator Principles, with the reporting subject to IUCN review and approval.

### **Proposed construction of the Khanyisa Coal Fired Power Station and associated coal mine in Witbank, Mpumalanga, South Africa, 2011 -2012: Review and Integration of Air Quality Impact Assessment**

- Appointed by Anglo American to undertake an EIA and compile and ESMP process for the construction of an 800 MW coal fired power station and associated coal mine. Requirements included reviewing and commenting on the Air Quality Impact Assessment undertaken and comment on the EIA Report. In addition, responsibility included the integration and write up of the Air Quality Impact Assessment component (construction and operation) for inclusion into the EIA report. The EIA was undertaken to align with IFC Performance Standards for Environmental and Social Sustainability and Equator Principles. Lastly, the project involved a peer review and strategic comment on the overall EIA Report, due to its location within a degraded air shed. The EIA was undertaken to align with IFC Performance Standards for Environmental and Social Sustainability and Equator Principles.

### **Proposed construction of an AfriSam Cement Plant, three mines and a transport corridor in Saldanha, Western Cape, South Africa, 2010 –2012 Assistant Project Manager**

- Appointed by AfriSam to undertake an EIA and compile and ESMP for the construction of a cement plant, three limestone mines, 20km transport corridor and the associated bulk service infrastructure. The Project is located with a region identified as a Global Biodiversity Hotspot (characterised with Fynbos habitat), which was subsequently subject to a Biodiversity Offset. The Offset requirements were successfully negotiated and accepted with the various government authorities. The Project team comprised of 14 specialists, all of whom were managed to within their budget and timeframe.



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**Proposed construction of the Vaal South Coal fired power station and associated coal mine in the Northern Free State, South Africa, 2008-2010 Assistant Project Manager**

- Appointed by Eskom (South African Power Provider) to undertake an EIA and compile an ESMP for the construction of a new 4000 MW coal fired power station and associated coal mine in the Sasolburg area. A screening of locations analysis was undertaken, using a multi-criteria decision making tool (AHP Pairwise Comparison Model), during the initial part of the EIA, which informed the consideration of alternatives and site location for the EIA process, based on environmental and social sensitivities. The Project team comprised of 14 specialists, all of whom were managed to within their budget and timeframe.

**Proposed construction of LPG marine offloading System and Land Based Storage Mound in the Port of Saldanha, Western Cape, South Africa, 2012 – 2013 Project Manager**

- Appointed by Sunrise Energy to undertake an EIA process for the construction of an LPG marine offloading facility and land based storage mound. The EIA included a quantitative and qualitative risk assessment, marine impact assessment and a comprehensive stakeholder engagement process (public meetings and focus group discussions). Due to the technical outcomes from the risk assessment, post assessment meetings were held with key stakeholders and authorities in the local region to provide a better understanding of the risk mitigation, monitoring and emergency evacuation requirements.

**Proposed construction of the SOMG Technical Facilities at the AngolaLNG Facility in Soyo, Angola 2013-to date Project Manager**

- Appointed by SOMG to undertake a regulatory EIA process for the construction of a technical facility in the AngolaLNG Facility in Soyo. The proposed facility includes laboratories, on-site bulk water and waste water treatment works, bulk hydrocarbon storage and administrative facilities, as an extension to the existing LNG facility. This process is being undertaken in conjunction with a local consultancy (Holistico). The EIA is undertaken to align with IFC Performance Standards for Environmental and Social Sustainability and Equator Principles.

**Proposed construction of the Aussenkehr Bulk Water Infrastructure System, Aussenkehr, Namibia 2011-2012 Project Manager**

- Aurecon was appointed by the Department of Water Affairs of Namibia to undertake an EIA process for the construction of bulk service water infrastructure, in the form of abstraction point, bulk water pipelines, reservoirs and pumpstations. A screening analysis was undertaken to identify potential route options, in light of social and environmental sensitivities. Responsibilities included the review of environmental legislation in Namibia, coordination of the project teams in Cape Town and Windhoek



and the coordination and management of the specialist team. The project management role involved overall financial control of the project, including negotiating milestones, invoicing, and progress reports.

#### **Proposed construction of Six Shoprite Retail Facilities and associated bulk service infrastructure in Luanda, Lobito, Lubango and Huambo, Angola, 2010-2011 Project Manager**

- Aurecon was appointed by Shoprite Angola to undertake an Six EIA process for the construction of a retail mall (including lineshops), an on-site bulk sewerage treatment plant, water treatment works and groundwater abstraction facilities. The project management role involved a legal review of applicable legislation, overall financial management of the project, including negotiating milestones, invoicing, managing specialist timelines, authority engagement and progress reporting. The EIA was undertaken to align with IFC Performance Standards for Environmental and Social Sustainability due to lender requirements.

#### **4.2 Operational Environmental Management Systems and On-Site Construction Auditing and Compliance**

##### **Development and implementation of an Environmental Management System and Legal Register for Cobalt International Energy, Angola, 2013: Project Manager**

- ERM is appointed by Cobalt to identify and implement operational phase requirements for exploratory drilling, in Blocks 20 and 21, approximately 300 km off the coast of Angola. The scope of work includes the development of an Operational EMS (including internal resource requirements), development of a legal register (including identification of additional regulatory operational phase requirements) and compilation of an oil spill response plan for the proposed exploratory process. This process is being undertaken in conjunction with a local consultancy (Holistico).

##### **Environmental Site Manager for construction of the Tienrivieren Dam, Citrusdal, Western Cape, South Africa, 2011- 2012 Project Manager**

- Responsible for the on-site Environmental Control Officer (ECO) and overall financial management of the project. Responsibilities also include resolving public or on-site environmental queries as well as ensuring that legislative requirements outlined in the Environmental Authorisation are fulfilled. Provided environmental and social guidance into the development of the sites storm water management and clean and dirty water separation system as well as managing environmental constraints associated with on-site watercourses. In addition, the project involved taking responsibility for the appointment and management of a botanist (implementation of alien removal programme and translocation) and archaeologist (Phase 2 Archaeological Search and Relocation) to fulfil post authorisation conditions for approval. Lastly, a grievance mechanism was developed and implemented for the duration of the construction phase.

**Environmental Site Manager for construction of the Dasbosch Dam, Moorreesburg, Western Cape, South Africa: 2011- 2012 Project Manager**

- Responsible for the on-site Environmental Control Officer (ECO) and overall financial management of the project. Responsibilities also include resolving public or on-site environmental queries as well as ensuring that legislative requirements outlined in the Environmental Authorisation are fulfilled. Provided environmental and social guidance into the development of the sites storm water management and clean and dirty water separation system and compilation and implementation of social grievance mechanism.

**Environmental Site Manager for construction of a Naval Submarine Escape Training Simulator in the Simonstown Naval Base, Western Cape, South Africa, 2009 – 2010 Project Manager**

- Responsible for the on-site Environmental Control Officer (ECO) and overall financial management of the project. Responsibilities also include resolving public or on-site environmental queries as well as ensuring that legislative requirements outlined in the Environmental Authorisation are fulfilled. Provided environmental and social guidance into the development of the sites stormwater management and clean and dirty water separation system and compilation and implementation of social grievance mechanism. Due to the proximity of the coastline, a marine discharge plan was developed for the operational phase of the training simulator.

**Environmental Site Manager for construction of bulk water storage and supply system to the Blaauwberg Development Area, Blaauwberg, South Africa, 2009 – 2011 Project Manager**

- Responsible for the on-site Environmental Control Officer (ECO) and overall financial management of the project. Responsibilities also include resolving public or on-site environmental queries as well as ensuring that legislative requirements outlined in the Environmental Authorisation are fulfilled. Provided environmental and social guidance into the development of the sites stormwater management and clean and dirty water separation system and compilation and implementation of social grievance mechanism. Lastly, an aquatic ecologist was appointed and managed, to undertake river rehabilitation of the river crossings required for the Project. Due to the extent of the Project, monthly landowner meetings were held in order to better manage relations for the proponent, when entering the operational phase.

#### **4.3 Stakeholder/ Community Engagement and Prefeasibility Planning**

**University of Cape Town: Stakeholder Engagement Process for University of Cape Town, Western Cape, South Africa, 2008 – 2009 Assistant Project Manager**

- Appointed by the University of Cape Town (UCT) to develop and implement a stakeholder engagement plan for the development of a public transport system. Responsible for the coordination of a variety of public processes (interviews, adverts,



focus group meetings, authority consultation), as well as updating of the University Precinct Plan resulting from public comment received. Due to the long standing relationship with the University and adjacent communities, it was pertinent to collate historical engagement processes, in order to inform the operationalization of the public transport system.

#### **Feasibility investigation for the proposed construction of a bulk water supply pipeline in Aussenkehr, Namibia, 2011 Project Manager**

- Aurecon Namibia (Pty) Ltd was appointed by NamWater to undertake a feasibility study for the New Bulk Water Supply Scheme for the proposed new town development at Aussenkehr, Namibia. The investigation resulted in the formulation of three feasible bulk water pipeline alternatives. As part of the Development Proposal, responsibility included providing preliminary input into the potential opportunities and constraints associated with three proposed pipeline route options, as well early identification of environmental, social (including resettlement) and cultural heritage sensitivities.

#### **Prefeasibility Screening Analysis for the proposed construction of an on-channel dam along the Knysna River, Western Cape, South Africa, 2010 Project Manager**

- The Knysna Municipality appointed Aurecon to undertake an Opportunities and Constraints Investigation of potential locations for the construction of a 6 Million <sup>3</sup> storage capacity on-channel dam along the middle to lower reaches of the Knysna River. Responsibility included overall project management, specialist appointment, and oversight, coordinating and facilitating team workshop as well as report compilation. In addition, detailed Terms of Reference were developed for the future EIA process.

#### **PetroSA Crude Oil Refinery Location Screening Process, South Africa, 2007, Assistant Project Manager**

- Aurecon was appointed by PetroSA to assist in identifying and screening potential locations for a new crude oil refinery from a technical, environmental and financial perspective, in order to identify the preferred geographical location for further investigation. The Ideal Mode AHP Pairwise comparison MCDA modelling tool was utilised in this study. The scope of work included reviewing legal and policy implications of crude oil refineries as well as specialist management, authority consultation. The Project, at the time, was kept confidential, and therefore no public consultation was undertaken.

## **5 Professional Affiliations**

- Served on the (South African) Western Cape Provincial Committee of the International Association for Impact Assessment (IAIA) from 2009 to 2011

- Member of the South African affiliate.

## 6 Publications

Pillay M, van der Merwe A and West A. “The Application of the Ideal Mode Analytical Hierarchy Process (AHP) Multi-criteria Decision-Making Model in Strategic Project Planning and Environmental Impact Assessments”, 2009