



1 Personal Particulars

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| Proposed Position: | Senior Environmental Assessment Scientist |
| Profession: | Environmental Management |
| Date of Birth: | 06 December 1976 |
| Name of Firm: | Nemai Consulting |
| Name of Staff: | Donavan Henning |
| Years of Experience: | 16 |
| Nationality: | RSA |
| Membership of Professional Societies | EAPSA |

2 Education:

M. Sc. Freshwater Ecology, RAU, 2001

3 Selected Consultancies

(A) RESOURCE MANAGEMENT

- (1) Developed the risk-based approach, reporting mechanism and model for the Department of Water Affairs and Forestry (DWAF) Sustainable EMS, based on ISO 14001 and international best practices.
- (2) Developed user-friendly documents of the Resource Directed Management of Water Quality policy, strategy and management instruments for DWAF.
- (3) Undertook training of the DWAF Regional Offices of the policy, strategy and management instruments for the Resource Directed Management of Water Quality project.
- (4) Assisted in the preparation of an Environmental Management Framework for the Jukskei River, where responsibilities included the analysis of water quality, biomonitoring, development of technical intervention measures and associated implementation plan.
- (5) Updating of DWAF's Integrated Environmental Management Framework and integration of the Integrated Environmental Management tools.
- (6) Prepared Applicant Guidelines, Decision-support System and standard Record of Decision for Section 21(c) and (i) water uses (National Water Act), for DWAF.
- (7) Prepared Catchment Management Framework for the Upper Klip River for the City of Johannesburg.
- (8) Developed a Rehabilitation Plan for Bruma Lake for the City of Johannesburg.

(B) ENVIRONMENTAL MANAGEMENT FRAMEWORKS

- (1) EMF for the Frances Baard District Municipality.
- (2) EMF for the uMkhanyakude District Municipality.
- (3) EMF for the uThukela District Municipality.



- (4) Integrated Environmental Management Plan for the Sol Plaatje Local Municipality.
- (5) Biophysical review and planning for the development of the Namakwa District Municipality Environmental Management Framework.
- (6) Biophysical and river health investigation for the EMF and SEMP for the Mthonjaneni Local Municipality.
- (7) EMF for the Jukskei River.
- (8) EMF for the Great Ellis Park development.
- (9) EMF for the Mapungubwe World Heritage Site for DEA.

(C) RESOURCE MONITORING

- (1) Fieldwork with Department of Environmental Affairs and Tourism, in the Northern Province. In a biomonitoring team, was responsible for performing SASS4, IHAS (Integrated Habitat Assessment System), HQI (Habitat Quality Index), and assisting in performing the FCI (Fish Community Index) and RVI (Riparian Vegetation Index).
- (2) Extensive practical fieldwork in biomonitoring of rivers in the Mpumalanga, Gauteng and North West Provinces. Performed SASS4, IHAS, HQI and chemical water sampling and analysis.
- (3) Performed biomonitoring of numerous urban rivers (e.g. Jukskei River, Braamfonteinspruit, Sandspuit and Klipspruit) to obtain baseline data to detect disturbance and non-compliance of various construction activities on aquatic ecosystems.
- (4) Assisted in the completion of the State of the Rivers Report for the Luvuvhu River.
- (5) Experience in Fish Health Assessment Index.
- (6) Performed biomonitoring on the Klein-Olifants River and Bosmanspruit in Mpumalanga to obtain baseline data for expansion of mining operations by Ingwe Coal.
- (7) Performed biomonitoring (SASS4, IHAS, RVI, habitat integrity index) on the lower Jukskei River to obtain baseline data for a proposed housing development.
- (8) Performed the Fish Health Index (FHI) on various fish species in the Vaal Dam.
- (9) Performed biomonitoring (SASS5, IHAS) on the Sesmyspruit for the Irene River development

(D) MANAGEMENT

- (1) Project managed the preparation of an Environmental Management Framework for the Klipspruit, where responsibilities included the analysis of water quality, biomonitoring, development of technical intervention measures and wetland action plans, and aiding in the set up of the GIS.
- (2) Project managed the preparation of the Kliptown Environmental Management Framework, where responsibilities included the (1) establishment of the status quo of the environment, (2) generation of Action Plans to address environmental deficits, (3) preparation of an Environmental Management Plan with area-specific mitigation measures for construction, (4) preparation and management of a Geographical Information System.
- (3) Project managed the EIAs for Johannesburg Water's 2004/2005 Capital Projects.
- (4) Project managed the EIAs for Johannesburg Water's 2005/2006 Capital Projects.

(E) EIA'S, SIA'S and EMP'S

- (1) EIA for the Transfer Scheme from Mokolo Dam to Lephalale as part of the Mokolo



- (2) Crocodile West Water Augmentation Project, for the Department of Water Affairs. Performed EIAs and prepared EMPs for Johannesburg Water sanitation and water supply projects for 2003/2004 and 2004/2005 financial years.
- (3) EIA for expansion of sewerage Bushkoppies Waste Water Treatment Plant. Performed biomonitoring on Klip River.
- (4) EIA for 80km long pipe from Randfontein to Rustenburg. Responsible for all biomonitoring surveys of rivers crossed in the project.
- (5) EIA for a fish barrier on the Mooi River upstream of Spring Grove Dam.
- (6) EIA for the Neptune-Poseidon 400kV Power Line from East London to Cookhouse for Eskom.
- (7) EMPs for the Acacia, Koeberg, Rugtevalei, Hydra 01 and Hydra 02 Substations for Eskom.
- (8) EIAs for river bank stabilization and flood attenuation features in the Jukskei River.
- (9) EIA and EMPR for waste rock dump at Beatrix Gold Mines, with public participation.
- (10) EIA for proposed Westlake Township development (economic housing project)
- (11) Undertook EIA for low-cost housing development in Soshanguve (ext. 11, 12 and 13), Tshwane.
- (12) EIA for upgrade of De Deur/Walkerville Waste Disposal Site.
- (13) EIA For Parkhaven Filling Station, Boksburg.
- (14) EIA for Zandspruit Pumpstation, Rising Main and Existing Sewer Line for Johannesburg Water.
- (15) EIA for the Fischer Tropsch Wax Expansion project, for Sasol Technology.
- (16) EIA for the de-bottlenecking of the Acrylic Acid and Acrylates (AAA) complex, for Sasol Technology.
- (17) EIA for the uMkhomazi Water Project in KZN, for DWS and Umgeni Water.
- (18) EIA for the Ncwabeni Off-Channel Storage Dam in KZN, for DWS.
- (19) Project managed various EIAs, including the following:
 - (i) Modderfontein Outfall Sewer;
 - (ii) Olievenhoutbosch Ext 37 low cost housing development;
 - (iii) Aspen eco-estate development;
 - (iv) Fairview estate development;
 - (v) Edenville Bulk Water Supply;
 - (vi) Braam Pretorius Street Extension;
 - (vii) Rehabilitation of Fairland Spruit;
 - (viii) Kempton Park Outfall Sewer;
 - (ix) Garsfontein Pipe Reinforcement;
 - (x) Tembisa Reservoir Pipeline;
 - (xi) Zuikerbosch embankment stabilisation;
 - (xii) Zuikerbosch Central Sludge Pipeline;
 - (xiii) Mahube Valley Ext. 15 low cost housing development.

(F) INSTITUTIONAL AND SOCIAL DEVELOPMENT

- (1) Performed environmental training for Rand Water employees.
- (2) Held public meetings to garner community views on the Jukskei River during the compilation of the Jukskei River EMF.
- (3) Completed a social survey for DWAF, on the impact of defunct mines in the Loskop Dam area on the social environment.
- (4) Undertook investigation of social facilitation aspect of four housing developments in Metsweding, namely Ekangala F1, F2 and F3, Rethabiseng Proper, Zithobeni



- Ext 8 and Onbekend, as well as numerous housing developments in Tshwane.
- (5) Performed a needs assessment for the Bekkersdal Township in the West Rand, and prepared Business Plans for combined school sports facilities and a water ring feed.
 - (6) Undertook water and sanitation needs assessment for seven of the fourteen Southern African Development Community (SADC) member states.

(G) RESEARCH PROJECTS (IN CONJUNCTION WITH VARIOUS INSTITUTIONS)

- (1) Undertook study, funded by WRC and CSIR, of the evaluation of the role of a local biomonitoring method in the Ecological Risk Assessment process and in the determination of Resource Directed Measures for the Luvuvhu River
- (2) Prepared Guideline to develop a Sustainable Urban River Management Plan, funded by WRC.

(H) COMPILING SPECIFICATION DOCUMENTS

- (1) Wrote decommissioning phase of general EMP plan.
- (2) Prepared decommissioning strategy for pipe-manufacturing plant.

(I) RISK ASSESSMENTS

- (1) Performed Human Health Risk Assessment on contaminated fish from a Zambian copper mine.
- (2) Experience in working with human health risk assessment software package Risk*Assistant™.

(J) TECHNICAL PROJECTS

- (1) Assisted in the identification of mine holings, sampling of surface and groundwater, and preparation of concomitant GIS.
- (2) Prepared Rand Water GIS for a pipeline in the Germiston region. The GIS incorporated significance ratings of environmentally sensitive features to assist in the integration of sensitive issues in future undertakings in the respective area.
- (3) Acted as an on-site Environmental Officer during the open-trench crossing and subsequent rehabilitation of a dyke in North Riding.
- (4) Prepared GIS for service breakdowns and bylaw contraventions in Greater Ellis Park

4 Employment Record:

2001 – Present Environmental Scientist, Nemai Consulting

- Duties:
- Application, development and implementation of environmental impact and management tools (e.g. EIA, EMP, SEA, EMS, EMF, WULA, environmental monitoring, training)
 - Developed Section 21 (c) and (i) WULA guideline.
 - Implemented numerous training sessions at all levels of government in the



Curriculum Vitae

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- environment sector.
- Developed 8 EMF's.
 - Completed over 50 EIAs.

5 Languages:

English - excellent speaking, reading, and writing