### Dr. Neville Bews & Associates

#### Social Impact Assessors

Committed to building high trust environments

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12 June 2015

1452

**Attention: Candice Hunter** 

Savannah Environmental Pty Ltd

5 Woodlands Drive Office Park

Cnr Woodlands Drive and Western Service Road

Woodmead

Review of the Social Impact Assessment Report for the Proposed Lethabo PV Solar Energy Facility and associated infrastructure near Sasolburg in the Free State Province.

Savannah Environmental (Pty) Ltd compiled the abovementioned Social Impact Assessment Specialist Report and appointed Dr Neville Bews to review the report. The review was concluded on 12 June 2015 and the following comments are made.

- 1. The proposed project is suitably described.
- 2. Appropriate methodology and assessment criteria are applied throughout the study.
- 3. Appropriate legislative guidelines were considered in compiling the report.
- 4. Adequate background information is provided.
- 5. The baseline description of the study area is satisfactory.
- 6. Stakeholders are adequately identified and consulted.
- 7. The report adequately identifies and addresses the social issues associated with the construction and operational phases of the proposed project.
- 8. The "No-go Option" is considered.

It can be concluded in considering the SIA in totality that the process and assessment followed was adequate providing a fair indication of the social impacts likely to arise as a result of the project.

Regards

Dr Neville Bews (D Litt et Phil)

#### **External Reviewer's Declaration of Independence:**

Peer review of the Social Impact Assessment for the Proposed Lethabo Photovoltaic (PV) Solar Energy Facility and associated infrastructure, situated approximately ~15km north east of Sasolburg within the Lethabo Power Station boundary, on Farm 1814.

#### **DECLARATION OF INDEPENDENCE**

I, Neville Bews as authorised representative of Dr Neville Bews & Associates hereby confirm my independence as a specialist and declare that neither I nor Dr Neville Bews & Associates have any interest, be it business, financial, personal or other, in any proposed activity, application or appeal in respect of which Dr Neville Bews & Associates was appointed as social impact assessment specialists in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), other than fair remuneration for work performed, specifically in connection with the review of the SIA Report: Proposed Lethabo Photovoltaic (PV) Solar Energy Facility and associated infrastructure, situated approximately ~15km north east of Sasolburg within the Lethabo Power Station boundary, on Farm 1814.

Signed:

Date: 12 June 2015

#### **Details and Experience of Independent Consultant**

#### **Qualifications:**

University of South Africa: B.A. (Honours) – 1984

Henley Management College, United Kingdom: The Henley Post-Graduate Certificate in Management – 1997

Rand Afrikaans University: M.A. (cum laude) – 1999 Rand Afrikaans University: D. Litt. et Phil. – 2000

#### Projects:

The SIA for the Gautrain Rapid Rail Link; The impact assessment for the Australian - South African sports development programme; SIA for Kumba Resources, Sishen South Project; Evaluation of a Centre for Violence Against Women for The United Nations Office on Drugs and Crime; SIAs for the following Exxaro Resources Ltd.'s mines, Leeuwpan Coal Mine Delmas, Glen Douglas Dolomite Mine Henley-on-Klip, Grootegeluk Open Cast Coal Mine Lephalale; SIA for the South African National Road Agency Limited (SANRAL) on Gauteng Freeway Improvement Project (GFIP); SIA for SANRAL on the N2 Wild Coast Toll Highway; Research into research outputs of the University for the University of Johannesburg; SIA for Waterfall Wedge housing and business development in Midrand Gauteng; SIA for the Environmental Management Plan for Sedibeng District Municipality; Social and Labour Plan for the Belfast Project on behalf of Exxaro Resources Ltd; SIA for the Transnet New Multi-Product Pipeline (Commercial Farmers) on behalf of Golder Associates Africa (Pty) Ltd; SIA for the Proposed Vale Moatize Power Plant Project in Mozambique on behalf of Golder Associates Africa (Pty) Ltd; SIA for Kumba Resources Ltd.'s proposed Dingleton Resettlement Project at Sishen Iron Ore Mine on behalf of Water for Africa (Pty) Ltd; SIA for Gold Fields West Wits Project for EcoPartners; SIA for the Belfast Project for Exxaro Resources Ltd; SIA for Eskom Holdings Ltd.'s Proposed Ubertas 88/11kV Substation on behalf of KV3 Engineers (Pty) Ltd; SIA for the Mokolo and Crocodile River (West) Water Augmentation Project (MCWAP) for the Department of Water Affairs on behalf of Nemai Consulting and the Trans Caledonian Water Authority; Assisted Octagon Consulting with the SIA for Eskom's Nuclear 1 Power Plant on behalf of Arcus GIBB Engineering & Science. SIA for the 150MW Photovoltaic Power Plant and Associated Infrastructure for Italgest Energy (Pty) Ltd, on behalf of Kalahari Survey Solutions cc. SIA for Eskom Holdings Limited, Transmission Division's Neptune-Poseidon 400kV Power Line on behalf of Nemai Consulting. Newabeni Off-Channel Storage Dam for security of water supply in Umzumbe, KwaZulu-Natal. Social Impact assessment for Eskom Holdings Limited, Transmission Division, Forskor-Merensky 275kV±130km Power line and Associated Substation Works in Limpopo Province. Social impact assessment for the proposed infilling of the Model Yacht Pond at Blue Lagoon, Stiebel Place, Durban. ABC Prieska Solar Project; Proposed 75 MWp Photovoltaic Power Plant and its associated infrastructure on a portion of the remaining extent of ERF 1 Prieska, Northern Cape. Sekoko Wayland Iron Ore, Molemole Local Municipalities in Limpopo Province. Langpan Chrome Mine, Thabazimbi, Limpopo; Jozini Nodal Expansion Implementation Project, KwaZulu-Natal, on behalf of Nemai Consulting; SIA for Glen Douglas Dolomite Burning Project, Midvaal Gauteng, on behalf of Afrimat Limited; SIA for Lyttelton Dolomite mine Dolomite Burning Project, Marble Hall Limpopo on behalf of Afrimat Limited. Tubatse Strengthening Phase 1 - Senakangwedi B Integration for Eskom Transmission on behalf of Nsovo Environmental Consulting; Department of Water and Sanitation, South Africa (2014). Environmental Impact Assessment for the Mzimvubu Water Project: Social Impact Assessment DWS Report No: P WMA 12/T30/00/5314/7.

Regularly lecture in the Department of Sociology at the University of Johannesburg and collaborated with Prof. Henk Becker of Utrecht University, the Netherlands, in a joint lecture to present the Social Impact Assessment Masters course via video link between the Netherlands and South Africa and regularly lecture on this course. Presented papers on Social Impact Assessments at both national and international seminars. Published on both a national and international level.

#### Affiliation:

The International Association for Impact Assessment Southern Africa.

Registered on the database for scientific peer review of iSimangaliso GEF project outputs.

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Integrated Environmental Management Unit
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Email: steenbok@aerosat.co.za

Reg No:

1996/032402/23

June 30 2016

Sandhisha Jay Narain Senior Environmental Consultant

Savannah Environmental (Pty) Ltd

Dear Sandhisha

**Ecological Assessment Report** 

Proposed Lethabo Solar Energy Facility Next to The Lethabo Power Station: Free State

I have reviewed the ecology report for the proposed Lethabo Solar Energy Facility next to the Lethabo Power Station: Free State and found the report to be a comprehensive assessment and well presented. The report is more than adequate for use in an Environmental assessment.

Sincerely

Michael Cohen

Pr Sci Nat (401917/83

Michael Cohen

CEN Integrated Environmental Management Unit 36 River Road Walmer Port Elizabeth 6070 South Africa



Telephone: 041 - 581-2983 / 581-7811 Fax: 0865042549

Email: steenbok@aerosat.co.za

Reg No: 1996/032402/23

#### Michael Cohen

CEN Integrated Environmental Management Unit 36 River Road Walmer, Port Elizabeth. 6070

Telephone: (+27) 041-581-2983,

Facsimile: 086 504 2549;

E-mail: steenbok@aerosat.co.za

#### **Date of Birth and Nationality:**

18 January 1945

#### **Nationality:**

South African

#### Languages:

English (mother tongue), Afrikaans (good)

#### **Qualifications:**

- **★** B.Sc. (Zoology, Psychology. Wits. RSA).
- ★ B.Sc. (Hons) (Wildlife Management. U Pretoria).
- ★ M.Ag. (Wildlife and Fisheries Ecology: Texas A&M). (1973)
- ★ D.Sc. (Wildlife Management. U Pretoria). (1988)

#### Institutions:

- South African Council of Natural Scientific Professions (SACNASP) (401917/83)
- ★ Professional Member Institute of Ecologists and Environmental Scientists
- Member International Association for Impact Assessment South African Chapter
- Member of IUCN Commission on National Parks and Protected Areas. (CNPPA) (1994 -1996)
- ★ Member of IUCN World Commission on Protected Areas (1997 current)
- ★ Honorary Member of the Institute of Environment and Recreation Management of Africa 1995
- ★ Appointed to the Board of the Institute of Ecologists and Environmental Scientists - April 1997-May 2000
- \* Referee to environmental assessment practitioners applying to the Interim Certification Board for Environmental Assessment Practitioners (ICB) for professional certification (2001 present)
- \* Appointed to the Council of the Provincial Heritage Resource Authority. Ministry of Sport, Arts and Culture. Province of the Eastern Cape 2003 (Resigned)
- ★ Appointed to the National Executive Committee of the IAIA South Africa (2013)

#### **Professional History:**

#### May 1996 - Present

Environmental Consultant: CEN Integrated Environmental Management Unit

#### July 1995 - May 1996

Director: Eastern Cape Nature Conservation. Ministry of Economic Affairs, Environment and Tourism. Left to start own consultancy business

#### January 1993 - June 1995

Regional Director: Cape Nature Conservation. Eastern Cape Region

#### October 1985 - December 1992

Deputy Director: Environment. Chief Directorate: Environmental Conservation Directorate: Environmental Management Department of Environment Affairs

#### July 1983 - September 1985

Assistant Director: Environment Chief Directorate: Environmental Conservation Department of Environment Affairs

#### March 1981 - July 1983

Chief Professional Officer Chief Directorate: Environmental Conservation Department of Environment Affairs

#### June 1978 - February 1981

Regional Ecologist: Transvaal Nature Conservation Division: Eastern Region (TPA)

#### August 1976 - May 1978

Officer-in-Charge. Suikerbosrand Nature Reserve Transvaal Nature Conservation Division (TPA)

#### 1972 - July 1976

Research Assistant Eugene Marais Chair of Wildlife Management University of Pretoria

#### Specialist Courses:

- ★ 1993 Completed the certificate course in Public Management at the University of Pretoria. The certificate was awarded Cum Laude
- ★ 1989 Completed course in Practical Techniques in Environmental Impact Assessment conducted by the Environmental Evaluation Unit at the Graduate School of Business, University of Cape Town
- ★ 1973 Completed the International Seminar on the Administration of National Parks and Equivalent Reserves held in the United States, Canada and Mexico
- ★ 1973 Completed short course in Tropical Ecology while at Texas A & M University

#### **International Experience:**

- Nominated as a member of an international team to evaluate the professional activities of the Nature and National Parks Protection Authority of Israel (Evaluation was to be conducted during November 2000)
- ★ 1994 Represent South Africa as Scientific Councillor on the Convention on Migratory Species - Nairobi, Kenya
- ★ 1994 Alternate delegate for South Africa at the Conference of the Parties of the Convention on Migratory Species - Nairobi, Kenya
- ★ 1994 -Member of the negotiations team for the African Eurasian Waterfowl Agreement - Nairobi, Kenya
- ★ 1993 -Represent South Africa as Scientific Councillor on the Convention on Migratory Species - Bonn, Germany
- ★ 1992 -Visit to Israel to hold preliminary discussions on a bilateral agreement on Nature and Environmental Conservation
- ★ 1992 -Participate in the IV World Congress on National Parks and Protected Areas - Caracas - Venezuela - Present two papers at the Congress and participate in numerous working groups on a wide range of protected area issues

- ★ 1991 1995 South African Representative on the Scientific Council for the Convention on Migratory Species
- ★ 1990 -Visit to England and Israel (met with a variety of nature and environmental conservation organisations) for discussion on joint projects and for discussions on national and regional protected area systems plans
- ★ 1989 -Member of South African delegation to the XV Antarctic Treaty meeting, Paris
- ★ 1988 -Delegate to the 17th IUCN General Assembly Costa Rica
- ★ 1986 -Seminar on Environmental Education Israel

#### **Specialisation in Firm:**

Integrated Environmental Management, Environmental Impact Assessment, Rural Development, Natural Resource Planning and Management

#### **Policy**

- \* Arrange and run two DWAF regional information sessions for the DWAF Regional Offices and Provincial Government Departments of the Western and Eastern Cape on the Implementation of the DWAF's (Eastern Cape) Environmental Evaluation System (2001). A further seven provincial workshops will follow.
- \* Run five Eastern Cape Information Sessions for District Municipalities in the Eastern Cape Province on the Implementation of the DWAF Environmental Evaluation System (2001)
- Member DANCED Review Mission on the National Waste Management Strategy
- Compile South African National Report to the Convention on Biological Diversity
- Sub-consultant to the Drafting team for the National White Paper on Integrated Pollution Control and Waste Management.
- \* Member of a six person drafting team for the National Green Paper on an Environmental Management Policy for South Africa where I represented the nine provinces.

\* Appointed as one of the Reference Group for the National White Paper on an Environmental Management Policy for South Africa.

#### **Papers and Publications:**

\* Author and co-author of some 27 papers, reports and conference presentations as well as a number of popular papers on environmental conservation.

#### **Selected Clients**

#### **South African**

- \* Aurecon
- \* BKS
- ★ Camdeboo Local Municipality
- ★ Blue Crane Development Agency
- \* Crown Chickens
- ★ Department of Environmental Affairs and Tourism
- ★ Department of Water Affairs and Forestry
- ★ Lalibela Private Game Reserve
- ★ Mandela Bay Development Agency
- ★ Municipality of Port Elizabeth (Nelson Mandela Metropole)
- ★ Ninham Shand (Eastern Cape)
- \* Portnet
- ★ Shamwari Game Reserve (Mantis Collection)
- \* South African National Roads Agency Ltd
- ★ Stewart Scott (Eastern Cape)
- \* Telkom South Africa
- ★ Vodacom South Africa
- \* Wilderness Safaris

#### International

- **★** DANCED (Denmark)
- \* IDRC (Canada)
- ★ European Union

#### **PUBLICATIONS AND PAPERS**

- Cohen, M. & M.H. Gerneke 1976. Preliminary report on the intermandibular cutaneous glandular area and the infraorbital gland of steenbok. J.S. Afr. Vet. Ass.47(1)I35-37
- Gerneke, W.H. & M. Cohen 1978. The micromorphology of the glands of the infra-orbital cutaneous sinus of the steenbok. Onderstepoort J. vet. Res. 45(2): 59-66
- Gerneke, W.H. & M. Cohen 1978. The micromorphology of the intermandibular region of the steenbok. Onderstepoort J. vet. Res 45(2): 67-74
- Cohen, M. 1980. The Cheetah Nature Trail Suikerbosrand Nature Reserve. Transvaal Nature Conservation Division.
- Cohen, M. 1982. The ecology of suburban gardens. In: V. Carruthers (Ed.). The Sandton Field Book - A guide to the natural history of the northern Witwatersrand. The Sandton Nature Conservation Society.
- Cohen, M. 1984. The South African Natural Heritage Programme.
   Department of Environment Affairs.
- Cohen, M. 1984 Hippotraqus equinus. CITES Identification manual.
   Volume 1.
- Cohen, M. and P. Lloyd 1985. *Damaliscus dorcas*. CITES Identification manual. Volume I.
- Cohen M. and E. Marrao 1985. The NAKOR National Plan for Nature Conservation and Related Programmes. In: Conservation: The Broad View. The Wildlife Society of Southern Africa.
- Cohen, M. and M.L. Hugo 1986. Conservation outside of officially designated areas - with emphasis on the urban environment. Parks and Grounds. 38: 15-23.
- Cohen, M. 1989. Sites of Conservation Significance Programme.
   Department of Environment Affairs.

- Cohen, M. and G.I. Cowan. (1989) The Southern African Plan for Nature Conservation and Related Programmes. Paper presented to the International Symposium on Conserving Biotic Diversity in Southern Africa.
- Cohen, M. (1989). The South African Natural Heritage Programme. Paper presented to the SADF Symposium on Multiple Land Use: The Role of secondary conservation areas in the RSA.
- Cohen, M. 1990. Environmental Management and the role of Protected Areas in Sustainable Development. Paper presented to the Sikelele Wildlife Awareness Course at the Avroy Schlain Auditorium, Johannesburg. April 30 - May 4, 1990.
- Cohen, M. 1990. Environmental Conservation and the Landscape Contractor (In press.)
- Cohen, M. 1990. The South African Natural Heritage Programme A Review. Environmental Planning and management 1(3):14-21.
- Cohen, M. 1990. Environmental Conservation and the role of the Health and Beauty Therapist. Paper presented to the 16th National Congress of the SA Institute of Health and Beauty Therapists.
- Cohen, M. 1992. The South African Natural Heritage Programme A new partnership. Paper presented to the IV World Congress on National Parks and Protected Areas.
- Cohen, M. 1992. The South African Plan for Nature Conservation. Paper presented to the IV World Congress on National Parks and Protected Areas.
- Cohen, M. 1992. Garden Ecology. Paper presented to the Transvaal Horticulture Society.
- Cohen, M. 1994. The ecology of a suburban garden. Paper presented to the Port Elizabeth Horticultural Society.
- Cohen, M and Powell M. 1994. The Value Of The Race Course To The Urban Open Space Network. Paper Presented to the 15th Annual National Racecourse Managers Conference. Port Elizabeth.
- Cohen M, Wahl, M and Weilbach D. 1994. The South African Natural Heritage Programme - A new partnership. p150-154. In: W. Van Hooven, H Ebedes and A Conroy (eds) Wildlife Ranching: A Celebration of Diversity. Promedia. Pretoria 400pp
- Cohen, M. 1995. The Environment and the Reconstruction and Development Programme. Paper presented at the Institute of Environment

and Recreation Management (Africa) Seminar: 1-3 October, 1995, Riverside Sun, Vanderbijlpark.

- A modified version of the above paper, Environment, Reconstruction and Development - Challenges for the New South Africa, was presented to the First Annual general Meeting of the Community Environmental Network in Port Elizabeth during October 1995.
- Cohen, M and Milliot Communications The South African Heritage Garden Programme. This text covers basic ecological principles and ideas for a number of community based programmes.

#### Several popular articles published in:

- Environment RSA
- SA Heritage
- Natura
- Custos
- Conserva
- Farmers Weekly
- Cosmopolitan
- Environmental Planning and Management
- Parks and Grounds

## Major Unpublished Departmental Reports - Transvaal Nature Conservation Division

- Cohen, M., Scholtz, A.T., and G. Reichel 1978. A preliminary survey of the cheetah on the Suikerbosrand Nature Reserve. 69 pp.
- Cohen, M. 1980. Evaluation of wildlife populations for reserves in the Suikerbosrand sub-region. 55 pp.
- Cohen, M. 1980. Unit Management Plan for Interpretation and visitor services. Sub-plan 6. Nature Trails.
- Cohen, M. and G.I. Cowan 1980. Unit Management Plan for interpretation and visitor services. Sub-plan 5. Youth Camps.

# APPENDIX 1: COMMITTEES AND WORKING GROUPS SEVERVED ON WHILE IN THE EMPLOY OF THE DEPARTMENT OF ENVIRONEMT AFFAIRS

#### **Committees and Working Groups**

Committees and working groups on which I serve or have served as a member or observer while employed by the Department of Environment Affairs.

- Central Committee for the Delimitation of Mountain Catchment Areas
- Advisory Committee for Pretoria Technikon
- Advisory Committee for Technikon RSA
- National Committee for Nature Conservation
- Magaliesberg Nature Area Management Committee
- SA National Committee for IUCN
- West Rand Guide Plan Committee
- Pietersburg Guide Plan Committee
- SA Plan National Working Group
- SA Plan Regional Working Groups
  - Regions: Al, All, B, C, D, E, F, G, H and J
- Tourism Strategy Working Group
  - RDAC Region F
- Environmental Conservation Committee
  - RDAC Region F
- Environmental Conservation Committee
  - RDAC Region G
- Antarctic Management Committee
- Cat Task Team for Marion Island
- South African Committee for Antarctic Research

- Advisory Committee on the National Grazing Strategy
- Co-ordinating Committee for the Kruger National Park Rivers Research Programme
- Co-ordinating Committee for the St Lucia Environmental Impact Study
- Multilateral Working Group on Nature and Environmental Conservation
- SARCCUS: Standing Committee for Nature Conservation, Wildlife Utilization and Management
- Committee for Environmental Management
- Working Groups for the Committee for Environmental Management
  - Working group on invasive biota
  - Threatened species working group
  - Problem animal working group
  - Working group on soil erosion
  - Working group on the SA Plan

(The above working groups have been combined to form a single Nature Conservation Working Group).

Under the old FRD system, I represented the Department on the following working groups and committees:

- Committee for Nature Conservation Research
- Working group on threatened plants
- Habitat conservation working group
- Nature Conservation working group
- Working group on rivers
- Conservation Behaviour working group