

Our Ref: J31314

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Dear Rhett Smart

**RE: ESKOM EIA CONCERNS FOR THE PROPOSED NUCLEAR-1 NUCLEAR
POWER STATION (NPS) AND ASSOCIATED INFRASTRUCTURE (DEA Ref. No:
12/12/20/944)**

GIBB (Pty) Ltd acknowledges receipt of the submission received from the Cape Nature dated 21 June 2013. We thank you for your valuable comments and your participation in the Eskom Nuclear Power Station (NPS) Environmental Impact Assessment (EIA) process to date. Your questions and comments concerning the Nuclear-1 have been noted.

Comment 1:

Cape Nature's requirements for providing comments on agricultural, environmental, mining, planning and water-use related applications

CapeNature is the statutory custodian of biodiversity in the Western Capeⁱ and commenting authority concerning potential impacts on biodiversity. This letter outlines the minimum requirements for submission of applications to CapeNature for the consideration, investigation and reporting on the biodiversity aspects of proposed changes to land use that may require an official decision.

In order to ensure that biodiversity and ecological issues are addressed as early as possible in the development application process and as comprehensively as required, please take note of the following information. This is applicable to any application that requires comment from CapeNature and complying with these recommendations should assist in avoiding unnecessary delays in the process.

Response 1

Your comment has been noted.

Comment 2:

Minimizing negative impacts on biodiversity

2.1 As part of the commenting process, CapeNature's involvement will relate specifically to the impact of the proposed development activities on the biodiversity and ecological aspects of the receiving environment. CapeNature expects that a precautionary and risk-averse approach be adopted towards those projects which may result in substantial detrimental impacts on biodiversity and ecosystems, especially the irreversible loss of habitat and ecological functioning in threatened ecosystems (as identified by the National Biodiversity Assessment, 2012)ⁱⁱ or designated sensitive areas: i.e. Critical Biodiversity Areas (as identified by systematic conservation plans, Biodiversity Sector Plans or Bioregional Plans) and Freshwater Ecosystem Priority Areas.

2.2 All reports must firmly demonstrate how the proponent intends complying with the principles contained in section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended³ (NEMA), which, amongst other things, indicates that environmental management should:

- In order of priority aim to: avoid, minimise or remedy disturbance of ecosystems and loss of biodiversity;
- Avoid degradation of the environment;
- Avoid jeopardising ecosystem integrity;
- Pursue the best practicable environmental option by means of integrated environmental management;
- Protect the environment as the people's common heritage;
- Control and minimise environmental damage; and
- Pay specific attention to management and planning procedures pertaining to sensitive, vulnerable, highly dynamic or stressed ecosystems.

These principles serve as guidelines for all decision-making concerning matters that may affect the environment. As such, it is incumbent upon the proponent to show how proposed activities would comply with these principles and thereby contribute towards the achievement of sustainable development as defined by the NEMA.

Response 2

Your comment has been noted. The Environmental Impact Report (EIR) contains an analysis of the adherence of the project to the NEMA principles.

Comment 3:

Guidelines and biodiversity plans

3.1 The Western Cape Department of Environmental Affairs and Development Planning (DEA&DP) has produced a series of guideline documents that provide clear guidance on the EIA processⁱⁱⁱ. Specifically, they aim to improve the capacity of environmental assessment practitioners (EAPs) to draft appropriate terms of reference that meet the information requirements for informed environmental decision-making. In addition the Fynbos Forum Ecosystems Guidelines for Environmental Assessment in the Western Cape (see point 3b

below) provides appropriate terms of reference for Botanical Assessments. By meeting the requirements for submission of accurate and relevant information, EAP's can support efficient and accountable decision-making.

With a view to adequately assessing impacts on biodiversity, we request that your environmental assessment is informed by the following documents. The implementation of relevant recommendations and/or actions as stipulated in these documents should be critically considered, regardless of whether a Basic Assessment, Scoping & EIA or any other authorisation process is to be undertaken.

- 3.2 Brownlie S (2005) *Guideline for involving biodiversity specialists in EIA processes: Edition 1*. CSIR Report No ENV-S-C 2005 053 C. Republic of South Africa, Provincial Government Western Cape, Department of Environmental Affairs and Development Planning, Cape Town⁴.
- 3.3 De Villiers C, Driver A, Clark B, Euston-Brown D, Day L, Job N, Helme N, Holmes P, Brownlie S and Rebelo T (2005) *Fynbos Forum Ecosystem Guidelines for Environmental Assessment in the Western Cape*, Fynbos Forum and Botanical Society of South Africa, Kirstenbosch, Cape Town^{iv}
- 3.4 The National Spatial Biodiversity Assessment (2011)^v
- 3.5 The most recent conservation plans and their associated reports and guidelines are available at the SANBI Biodiversity GIS Unit website^{vi}. The mapping tools can be useful, but please note that while these tools can help to identify potential issues, the use thereof does not constitute a biodiversity assessment.
- 3.6 Biodiversity Sector Plans for municipalities, where available^{vii}.
- 3.7 The Western Cape Provincial Spatial Development Framework: Statutory Report (2009) (Department of Environmental Affairs & Development Planning)^{viii}.

Response 3

Your comment has been noted. The botanical specialist, Barrie Low of Coastec, is familiar with the DEA&DP guidelines and has produced a biodiversity assessment that addresses the issues identified in these guidelines.

Comment 4:

Biodiversity 'red flags' in the Western Cape

- 4.1 The following factors must be taken into account during project planning and assessment:
 - a. CapeNature *does not support* activities that may negatively impact on the following habitats and their ecological functioning:
 - i. Rivers, wetlands, groundwater-dependent communities or ecosystems, flood plains and estuaries, tidal flats or salt marshes.
 - ii. Viable and/or connected habitat in Critically Endangered and Endangered ecosystems.
 - iii. Any area that has been identified as a Critical Biodiversity Area or Ecological Support Areas as identified by the most recent systematic conservation planning initiative.

- iv. Any other special habitats that may contain a unique assemblage of species. This could include *inter alia*, dolomite outcrops, quartz or ferricrete patches.
- v. Any habitat that may contain rare, threatened or range-restricted floral or faunal species.
- vi. Natural habitat in an ecological corridor or along a vegetation boundary (including frontal dune systems).
- vii. Formally declared Mountain Catchment Areas.

Appropriate buffers must be determined by a suitably qualified specialist to avoid impacting on these habitats and particular attention should be paid to avoiding the loss of intact habitat, maximizing connectivity at a landscape scale, maximizing habitat heterogeneity and reducing fragmentation at a local and regional scale. Please also note that an infestation by alien plants does not necessarily mean that an area is not important for biodiversity conservation.

- b. The Cape Floristic Region is largely a fire-dependent system and natural fire regimes must be maintained and managed in the landscape. The exclusion of fire from certain habitats will be considered unacceptable as this may ultimately cause the loss of species. Where appropriate, the location of fire-breaks should be indicated and these fire-breaks may be considered part of the development footprint. A fire-risk assessment can help inform an appropriate layout for developments adjacent to fire-prone vegetation.
- c. Water is a limited resource in the Western Cape. Water requirements for proposed activities and the potential impact on broader surface and underground water resources must be rigorously assessed and considered by an aquatic/freshwater specialist, including the cumulative impact if other developments are also taking place in an area. Cumulative impacts on infrastructure such as Waste Water Treatment Works must also be considered.

Groundwater use for bulk supply purposes and irrigation must be assessed rigorously with specific reference to the possible groundwater-surface water interfaces. Groundwater use assessments must include the identification of possible groundwater dependent ecosystems and/or possible interfaces with surface resources. Aquifers need to be described in terms of: aquifer type, aquifer characteristics, aquifer condition, as well as aquifer recharge and yield^{ix}.

Specialist assessment(s) should be undertaken if any of the above-mentioned circumstances prevail or if there is any doubt about the biodiversity value of the potentially impacted areas. The opportunities and constraints of the receiving environment should be used to inform the desirability and layout of any development proposal so as to ensure that developments do not compromise the biodiversity value of the area.

Response 4

Your comment has been noted. These guidelines have been taken into considerations in the biodiversity assessments undertaken for the Nuclear-1 EIA.

Comment 5:

Commissioning of biodiversity specialists

- 5.1 A suitably qualified and experienced specialist is often critical to ensuring that the necessary information is provided for informed decision-making. Please take note of the following recommendations from the *Guideline for involving biodiversity specialists in EIA processes (DEA&DP 2005)*.

Biodiversity specialists should:

- a. Be competent at interpreting and evaluating information and able to explain the direct and indirect consequences of an activity to biodiversity;
- b. Have appropriate formal training in his/her field of expertise;
- c. Have sufficient practical experience working in the specific ecosystems of the affected region;
- d. Be able to trace impact pathways and identify indirect or cumulative impacts and consider ecosystem goods and services;
- e. Have good knowledge relating to assessment techniques and to relevant legislation, policies and guidelines;
- f. Be independent; and
- g. Be registered with South African Council for Natural Scientific Professions (SACNASP).

CapeNature also recommends that specialists be asked to review the information in the report to be submitted for decision-making to confirm that their opinion has been adequately reflected.

Response 5

Your comment has been noted. The biodiversity specialists used for the Nuclear-1 EIA comply with the above-mentioned criteria.

Comment 6:

Format of reports

- 6.1 Please help us provide you with a timely response by supplying all information in a readily accessible format:
- a. The main report must be submitted, and include: locality maps, all alternative layout plans and all biodiversity related specialist reports. All reports longer than 50 pages must be submitted in hardcopy, shorter reports can be submitted on disc. The hardcopy should be accompanied by a digital copy of the complete application on disc.
 - b. Electronic reports must be submitted on cd/dvd – we will not accept reports sent via email or ftp or website links.
 - c. We also encourage you to reduce the amount of paper used by printing both sides of a page.
 - d. Please supply all maps and alternative layouts in colour.
 - e. To facilitate assessment of potential impacts, we request that maps of proposed development layouts be overlaid with identified environmental features of a site. If provided separately, maps should be produced at the same scale.
 - f. Where available, GIS shape-files of the proposed development footprint, particularly for linear features or for combined applications with numerous sites, would be appreciated.

- g. Please allow sufficient time for post or courier services to deliver the documents at the beginning of the commenting period. We receive a large number of reports and need to treat applicants and consultants fairly therefore applications will be processed from date of receipt within the required number of days as stipulated by the DEA&DP, the DMR or other competent authority.
- h. For spatial planning reports or Environmental Management Frameworks however, electronic reports submitted via ftp sites will be accepted.

Response 6

Your comment has been noted. These guidelines will be considered in the development of reports.

Comment 7:

Status of CapeNature's comment

Please note that CapeNature does not consider verbal discussions regarding any aspect of a proposed development as adequate or complete comment. Please ensure that you obtain written comment once all the necessary information is made available for review. We reserve the right to amend our position based on any new information that may be received.

Response 7

Your comment has been noted.

Comment 8:

Applications requiring comment from CapeNature should be sent to the following addresses:

City of Cape Town and Overberg District Municipalities:

CapeNature
Scientific Services: Land Use Advice
P/Bag X5014
STELLENBOSCH
7599
Attention: Rhett Smart

Email: rsmart@capenature.co.za
Tel: 021 866 8000
Fax: 021 866 1523 / 086 529 4992

West Coast and Winelands District Municipalities:

CapeNature
Scientific Services: Land Use Advice
P/Bag X5014
STELLENBOSCH
7599

Attention: Alana Duffell-Canham

Email: aduffell-canham@capenature.co.za

Tel: 021 866 8000

Fax: 021 866 1523 / 086 529 3475

Eden and the Central Karoo District Municipalities:

CapeNature
Scientific Services: Land Use Advice
P/Bag X6546
GEORGE
6530
Attention: Benjamin Walton

Email: landusegeorge@capenature.co.za

Tel: 044 802 5328

Fax: 086 645 2546

Forward Planning Documents and Environmental Management Frameworks for all regions in the Western Cape

CapeNature
Scientific Services
Private Bag X7
Claremont
7735
Attention: Kerry Maree

Email: Kmaree@capenature.co.za

Tel: 021 799 8731

Fax: 021 797 7186

Response 8

Your comment has been noted and reports will be provided for comment to CapeNature as indicated.

Yours faithfully



for GIBB (Pty) Ltd
Nuclear-1 EIA Manager

ⁱ Section 9, Western Cape Nature Conservation Board Act 15 of 1998

ⁱⁱ Formerly the National Spatial Biodiversity Assessment of 2004

ⁱⁱⁱ http://www.westerncape.gov.za/your_gov/406

^{iv} Contact the Botanical Society on 021 797 2090 or email info@fynbosforum.org.za or download at <http://bgis.sanbi.org/wces/project.asp>

^v <http://bgis.sanbi.org/nba/project.asp>

^{vi} <http://bgis.sanbi.org> or email BGISHelp@sanbi.org

^{vii} Biodiversity Sector Plans include Critical Biodiversity Areas Maps, Municipal Biodiversity Profiles and Land and Resource Use Guidelines.

^{viii} http://www.westerncape.gov.za/eng/pubs/public_info/W/186589

^{ix} For groundwater-related assessments, consult: Saayman, I (2005) Guideline for involving hydrogeologists in EIA processes: Edition 1. CSIR Report No ENV-S-C 2005 053 D. Republic of South Africa, Provincial Government of the Western Cape, Department of Environmental Affairs & Development Planning, Cape Town.