

**IN THE HIGH COURT OF SOUTH AFRICA  
(WESTERN CAPE DIVISION, CAPE TOWN)**

CASE NO: 13446/2020

In the matter between:

**CENTRE FOR ENVIRONMENTAL RIGHTS NPC** Applicant

and

**MINISTER OF ENVIRONMENT, FORESTRY AND FISHERIES** First Respondent

**MINISTER OF MINERAL RESOURCES AND ENERGY** Second Respondent

**REGIONAL MANAGER: MINERAL REGULATION,  
WESTERN CAPE REGIONAL OFFICE** Third Respondent

**MINERAL SANDS RESOURCES (PTY) LTD** Fourth Respondent

**NORTH WESTERN CAPE MINING FORUM** Fifth Respondent

**RAAKVAT BOERDERY (Edms) Bpk** Sixth Respondent

**MERLE SOWMAN** Seventh Respondent

**MEC FOR DEPARTMENT OF ENVIRONMENTAL  
AFFAIRS AND DEVELOPMENT PLANNING  
WESTERN CAPE  
GOVERNMENT** Eighth Respondent

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**SUPPORTING EXPERT AFFIDAVIT OF NICHOLAS HELME**

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I, the undersigned

**NICHOLAS ALEXANDER HELME**

state under oath that:

- 1 I am self-employed and the sole proprietor of Nick Helme Botanical Surveys at PO Box 22652 Scarborough 7975. I have been the sole proprietor of Nick Helme Botanical Surveys for 20 years.
- 2 I am a botanical consultant with the following qualifications: a Bachelor of Science (with Honours) in Botany obtained at the University of Cape Town. I have 23 years' experience in my field of specialisation and am a Professional Natural Scientist (Reg. No. 400045/08) registered with the South African Council for Natural Scientific Professions (SACNASP).
- 3 My key areas of expertise include consideration of vegetation in impact assessment, location of threatened plant species, botanical surveys and sensitivity mapping and assessment of the threat status of species, habitats and vegetation types.
- 4 I have undertaken over 1900 botanical assessments for proposed development sites including housing, quarries, landfills, roads, borrow pits, pipelines, powerlines, power stations, agriculture, mines and wind and solar farms, in all types of habitats throughout the Western Cape and parts of the Northern Cape.
- 5 I have conducted at least 70 different botanical assessments in the Sandveld region in the last 12 years, including botanical impact assessments for:
  - 5.1 the proposed Namakwa Sands mine expansion area in Brand se Baai on the West Coast (SRK Consulting 2013) about 20 kilometres north of the current Tormin Mine and extension areas;

- 5.2 the proposed Namakwa Sands heavy mineral sands mine expansion at Grouwduin se Kop & Hartebeeskom, Brand se Baai (Bathusi Environmental 2020);
- 5.3 the proposed sand mine near Klawer (Jenny Barnard 2018); and
- 5.4 the proposed Eskom Sere Wind Energy Facility on the West Coast, adjacent to the current Tormin Mine operations. (Savannah Environmental 2007).
- 6 I have also conducted Fine Scale Vegetation Mapping in Saldanha Municipality<sup>1</sup> and in the Sandveld.<sup>2</sup>
- 7 The facts set out in this affidavit fall within my personal knowledge and belief, except where the context indicates otherwise, and are true and correct.
- 8 On 21 September 2020 the Centre for Environmental Rights ("CER") lodged:-
- 8.1 an internal appeal in terms of section 96(1) of the Mineral and Petroleum Resources Development Act, 28 of 2002 ("the MPRDA") against the decision taken by the Department of Mineral Resources and Energy ("DMRE") in terms of section 102 (1) of the MPRDA to amend MSR's mining right; and
- 8.2 an application in terms of section 96(2) of the MPRDA for the suspension of the decision made in terms of section 102(1) of the MPRDA ("the suspension application"), pending the outcome of the internal appeal.
- 9 On 20 October 2020, I deposed to a supporting expert affidavit accompanying the CER's replying affidavit in the suspension application.

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<sup>1</sup> CapeNature & SANBI, 2006 – 2007.

<sup>2</sup> CapeNature & SANBI, 2006 - 2007.

10 On 22 September 2020, the CER also brought an application for judicial review in the Western Cape High Court under case number 13446/2020 seeking to set aside (i) the decision of the Third Respondent to dismiss the CER's appeal in terms of section 43(1A) of the National Environment Management Act, 107 of 1998 against the decision of the DMRE to grant an Integrated Environmental Authorisation to Mineral Sands Resources (Pty) Ltd and (ii) the DMRE's decision to grant the Integrated Environmental Authorisation.

11 I have read the founding affidavit in the above matter and specifically agree with the contents of the following grounds of review: -

11.1 The ground of review under the heading "*Flawed approach to evaluating the impact significance on terrestrial biodiversity*", namely:

11.1.1 Paragraphs 136 to 150 in relation to the role of Critical Biodiversity Areas (CBAs) in taking decisions in respect of land use;

11.1.2 Paragraphs 151 to 159 in relation to the assessment of impact on terrestrial biodiversity in respect of the mining extension in the environmental impact assessment process;

11.1.3 Paragraphs 160 to 163 in relation to the assessment and evaluation of impact significance on terrestrial biodiversity;

11.1.4 Paragraphs 164 to 165 in relation to the CER's expert evidence;

11.2 The ground of review under the heading "*Failure to take into account the precautionary principle where there is a threat or serious or irreversible damage to a resource*", namely paragraphs 169 – 191;


- 11.3 The ground of review under the heading "*Failure to take into account cumulative impacts, particularly on terrestrial and marine ecology*", namely paragraphs 192 to 203; and
- 11.4 The ground of review under the heading "*Failure to consider climate change impacts*", namely paragraphs 204 to 212.
- 12 I have also read the supplementary founding affidavit in the above matter and specifically confirm that I agree with the contents of the section of the supplementary founding affidavit in respect of the flawed approach to evaluating the impact significance on biodiversity.
- 13 I have assessed the Integrated Environmental Authorisation, the Environmental Impact Assessment Report (EIAR) and the Terrestrial Ecology Specialist Study (Appendix 11F of the EIAR) undertaken as part of the environmental impact assessment process for the section 102 mining extension.
- 14 The findings of my assessment are contained in the statement dated 17 October 2020 prepared for the CER, titled *Specialist Botanical Input – Environmental Impact Assessment and Environmental Authorisation – MSR Tormin extension of mining right*, annexed as "**NH 1**". I confirm that I authored this statement.
- 15 I further confirm the correctness of the supplementary founding affidavit in so far as it specifically refers to me and the statement annexed as "**NH 1**".
- 16 It is my concluding view that the understatement of the true botanical sensitivity of the section 102 mining extension area in the Terrestrial Ecology Specialist Study (Appendix 11F of the EIAR), and the failure to apply the precautionary principle in instances where there are limitations in knowledge, warrants both the DMRE's decision to grant an Integrated Environmental Authorisation, and the Environment Minister's decision to

dismiss the CER's appeal against the granting of the Integrated Environmental Authorisation, being reviewed and set aside.



**NICHOLAS ALEXANDER HELME**

I hereby certify that the deponent knows and understands the contents of this affidavit and that it is to the best of the deponent's knowledge both true and correct. This affidavit was signed and sworn to before me at Ocean View on this the 24 day of **FEBRUARY 2021**, and that the Regulations contained in Government Notice R.1258 of 21 July 1972, as amended by R1648 of 19 August 1977, and as further amended by R1428 of 11 July 1989, having been complied with.

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**COMMISSIONER OF OATHS**

Full names: Brent Tano

Address: 01 Slangekop, Road, Ocean View

Capacity: Police officer

SUID-AFRIKAANSE POLISIEDIENS
STATION COMMANDER
<b>24 FEB 2021</b>
OCEAN VIEW W.O.
SOUTH AFRICAN POLICE SERVICE



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**NICK HELME BOTANICAL SURVEYS**

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Pri.Sci.Nat # 400045/08

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17 October 2020

Centre for Environmental Rights  
Cape Town  
ATT: Melissa Fourie

Dear Melissa

**Specialist Botanical Input – Environmental Impact Assessment and  
Environmental Authorisation - MSR Tormin extension of mining right.**

I have reviewed the EIR (dated November 2018), the Terrestrial Ecology Specialist Study (Todd July 2018) and the Environmental Authorisation (June 2019) for this project.

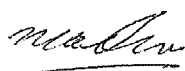
My primary concern in terms of the information provided by Todd (2018), which has thus informed his conclusion, that of the EIR and of the EA, relates to the comprehensiveness and accuracy of the plant Species of Conservation Concern (SCC) recorded and/or likely to be present in the development footprints. Todd concedes that the seasonality of the three site visits was a significant constraint in terms of his ability to assess the presence of seasonally evident species, notably bulbs and annuals (which are dormant and often invisible out of season). None of the three site visits was undertaken in the optimum spring flowering season (early August – early September) in this semi-arid and strongly winter rainfall area, and thus he was unable to identify or record a substantial portion of the flora present in the study area, as these life forms typically make up between 20 and 40% of the total plant diversity in these habitats (Desmet and Helme 2003, 2005; Desmet *et al* 2009; Helme 2020). It is for this reason, that the commenting authority – CapeNature - strongly recommends that site visits be undertaken during the optimum flowering season, especially for large projects such as this one.

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In his report Todd in fact only names two plant SCC that he actually observed – both being bulbs that have perennial leaves or surface visible bulbs (*Boophone haemanthoides* and *Babiana thunbergii* (now *B. hirsuta*). However, based on my surveys and assessments undertaken (in the spring flowering season) in nearby and adjacent properties, in similar habitat, it is indeed very likely that the beach mining areas support at least 4 plant SCC (*Oncosiphon schlechteri*, *Helichrysum dunense*, *Drosanthemum marinum* and *Manulea cinerea*). Todd lists all these species in Appendix 1, and notes that these 40 listed species are “known from the vicinity”, but does not indicate which are known from the actual development footprints or from the greater property (which may in due course be subject to further mining applications). Many are in fact known from the adjacent Namakwa Sands property (Desmet & Helme 2003; Helme 2020), and it is our work in this area that is the source of many of these cited records.

The 75ha inland mining area and the 64ha facility footprint are very likely to support between 5 and 10 plant SCC (viz. *Eriospermum arenosum*, *Leucoptera nodosa*, *Wahlenbergia asparagoides*, *Lapeirousia simulans*, *Muraltia obovata*, *Helichrysum tricostatum*, *Babiana teretifolia*, *Babiana brachystachys* and *Ferraria foliosa*). In addition, Todd fails to mention that there are three undescribed plant species known from this habitat in this region (*Nemesia* sp. nov. *Gethyllis* sp. nov. and *Arctotis* sp. nov. *rubrosabulosa* MS), and the first two are rare and undoubtedly threatened, whilst the latter is more widespread and perhaps does not qualify as threatened. The presence of three undescribed species is indicative both of the richness and of how poorly known the flora in the region actually is. There could thus easily be as many as 12 or 13 plant SCC in the inland development footprints, and as a spring survey of the site was not undertaken and as the presence of these likely SCC could thus not be disproven, this must be regarded as a failing of both the specialist study, the EIR and the EA. The ecological specialist study may thus have understated the true botanical sensitivity of the proposed mining and facility areas, as presence of SCC is a key informant of sensitivity assessment. The precautionary principle, which EIAs are supposed to follow, implies that one must assume that sites are ecologically sensitive and may contain SCC, until proven otherwise.

Yours sincerely



Nick Helme

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Scientific and specialist references cited:

Desmet, P. G. and N. Helme. 2003. Namakwa Sands: Description of the vegetation of the expanded Brand se Baai mine site. Unpublished baseline report for CCA, Cape Town. Nick Helme Botanical Surveys, Scarborough.

Desmet, P. G. and N. Helme. 2005. Impact Assessment of proposed EMPR amendment for Namakwa Sands, Brand se Baai: Vegetation. Unpublished report for Golder Associates, Johannesburg. Nick Helme Botanical Surveys, Scarborough.

Desmet, P.G., Turner, R. C. and Helme, N. A. 2009. Namaqua Sands Regional Context Vegetation Study. Report for Golder Associates Africa, Halfway House, South Africa.

Helme, N. 2020. Botanical impact assessment report for proposed mining of heavy mineral sands at Grouwduin se Kop & Hartebeeskom, Brand se Baai, Western Cape. Unpublished report for Bathusi Environmental Consulting cc, Gauteng & Tronox Namakwa Sands. Nick Helme Botanical Surveys, Scarborough.

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