

TERRESTRIAL ANIMAL SPECIES COMPLIANCE STATEMENT

**PROPOSED EXPANSION AND AMENDMENT
OF BENTONITE AND ZEOLITE MINING ACTIVITIES ON FARM UITSPANSKRAAL
RE/585 MINERAL AREA 2 HEIDELBERG, WESTERN CAPE
MR Ref: WC30/5/1/2/2/157
(Renewed under reference WC30/5/1/2/2/10124MR)**



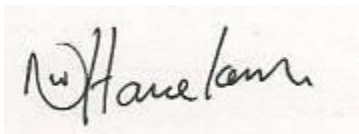
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October 2025

DECLARATION OF THE SPECIALIST

I **Nicolaas Willem Hanekom**, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
 - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.



Nicolaas Hanekom
Pri.Sci.Nat (Ecology) 400274/11

Signature of the EAP/ Specialist:

31 October 2025

Date:

Enviro-EAP (Pty) Ltd

Name of company (if applicable):

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1. INTRODUCTION

1.1. *Background & Competency*

Nicolaas Hanekom is a registered Professional Natural Scientist in the ecological science field with the South African Council for Natural Scientific Professions (“SACNASP”), (Ecology field) and a qualified registered Environmental Assessment Practitioner (“EAP”) who holds a Masters Technologiae, Nature Conservation (“Vegetation Ecology and Biodiversity Assessment”) degree from the Cape Peninsula University of Technology (Refer to Appendix A, CV). Nicolaas Hanekom is suitably qualified SACNASP registered specialist.

1.2. *Conditions Relating to this Report*

The findings, results, observations, conclusions and recommendations given in this report are based on the author’s best scientific and professional knowledge as well as available information and knowledge of the area.

This report may not be altered or added to without the prior written consent of the author. This restraint also refers to electronic copies of this report which are supplied as sub portion of other reports, including main reports. Similarly, any recommendations, statements, or conclusions drawn from or based on this report must specifically refer to this report. If such comments form part of a main report for this investigation, the report must be included in its entirety as an appendix or separate section to the main report.

1.3. Terms of Reference

Step 1: Site Sensitivity Verification Report

Prior to beginning the assessment, the current use of the land and the potential environmental sensitivity of the site as identified by the national web based environmental screening tool must be confirmed by undertaking an Initial Site Sensitivity Verification. The Initial Site Sensitivity Verification must be undertaken by an environmental assessment practitioner or a registered specialist with expertise in the relevant environmental theme being considered. The Initial Site Sensitivity Verification must be undertaken through the use of:

- (a) a desk top analysis, using satellite imagery;
- (b) a preliminary on-site inspection to;
- (c) any other available and relevant information.

The outcome of the Initial Site Sensitivity Verification must be recorded in the form of a report that:

- (a) confirms or disputes the current use of the land and the environmental sensitivity as identified by the screening tool, such as new developments or infrastructure, the change in vegetation cover or status etc.;
- (b) contains a motivation and evidence (e.g. photographs) of either the verified or different use of the land and environmental sensitivity; and
- (c) is submitted together with the relevant assessment report prepared in accordance with the requirements of the Environmental Impact Assessment Regulations.

The site sensitivity verification report was completed by the environmental assessment practitioner and was included in the Scoping and Environmental Impact Assessment reports.

The outcome of the site sensitivity verification report concerning animal sensitivity of proposed development site and surrounds can be summarised as below:

The Department of Environmental Affairs screening report from the national web based environmental screening tool reported a "Medium sensitivity for animal species theme". Figure 1 depicts the property on which mining activities area proposed which falls within Medium Animal Species Sensitivity areas (refer to figure 1 below). However the environmental assessment practitioner and ecological specialist does not agree with this finding and have provided the following reason why the proposed development area can be classified as a Low Sensitivity Animal Species area and therefore an Animal Impact Compliance Statement will suffice:

- *The quarry amendments and additional quarry areas as proposed are located on annually cultivated agricultural land and within an existing mining right area already previously assessed for potential environmental impacts and with already ongoing mining activities taking place on site. Most of the property is annually cultivated and therefore it is not expected to be a permanent habitat to animal species of conservation concern. However, due to remaining indigenous remnants throughout the property indigenous animal species may be impacted upon by the proposed mining activities therefore an Animal Species Impact Statement is proposed.*

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eidatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Invertebrate-Aneuryphymus montanus

Figure 1: Animal sensitivity map generated by the national web based environmental screening tool for proposed mining expansion areas on Remaining Extent of Farm Uitspanskraal No 585, Heidelberg, indicating location and animal sensitivity of the proposed mining expansion areas.

Step 2: Terrestrial Animal Species Compliance Statement

This compliance statement reports on the findings of the terrestrial animal sensitivity verification and site survey that was conducted by Nicolaas Hanekom.

The compliance statement must:

- be applicable to the study area;
- confirm that the study area is of “low” sensitivity for terrestrial animal species; and
- indicate whether or not the proposed development will have any impact on SCC.

The terrestrial animal compliance statement, must contain, as a minimum, the following information:

- contact details and relevant experience as well as the SACNASP registration number of the specialist preparing the compliance statement including a curriculum vitae; **Refer to cover page, section 1.1. and Appendix A of this report**

- A signed statement of independence by the specialist; **Refer to page 2 of this report**
- A statement on the duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment; **Refer to section 2.**
- a description of the methodology used to undertake the site survey and prepare the compliance statement, including equipment and modelling used where relevant; **Refer to section 3**
- the mean density of observations/ number of samples sites per unit area; **Refer to Section 4**
- where required, proposed impact management actions and outcomes or any monitoring requirements for inclusion in the EMP; **Refer to Section 5**
- a description of the assumptions made as well as any uncertainties or gaps in knowledge or data; and **Refer to Section 6**
- any conditions to which the compliance statement is subjected. **Refer to Sections 5 and 7**

Step 3: Reporting

A signed copy of the compliance statement must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.

2. BASELINE PROFILE DESCRIPTION OF BIODIVERSITY AND ECOSYSTEMS, INCLUDING A STATEMENT ON THE DURATION, DATE AND SEASON OF THE SITE INSPECTION AND THE RELEVANCE OF THE SEASON TO THE OUTCOME OF THE ASSESSMENT

Imerys Refractory Minerals South Africa (Pty) Ltd t/a Cape Bentonite Mine is an existing Bentonite and Zeolite mining company operating under an existing mining right on Mineral Area 2 (A Portion of Mineral Area 1) on the Remaining Extent of Farm Uitspanskraal No 585, Heidelberg (WC)30/5/1/2/2/157 originally issued on 03/03/2009 and renewed under reference WC30/5/1/2/2/10124MR on 17/11/2021.

Cape Bentonite Mine proposes to amend the approved quarries 3-6 and add two additional quarries within the approved mining right area on Farm Uitspanskraal RE/585. A total of 2.2ha has already been mined and rehabilitated since 2013 and is being used for ongoing annual cultivation by the landowner as per closure objectives.

Authorised mining right quarries currently being mined:

- Quarry/phase 1 – 1.6ha
- Quarry/phase 2 – 1.35ha

Authorised mining right quarries still to be mined and amended:

- Quarry/phase 3 – 0.86ha
- Quarry/phase 4 – 0.21ha
- Quarry/phase 5 – 0.34ha
- Quarry/phase 6 – 0.2ha

Additional quarries proposed within authorised mining right area:

- Quarry/phase 7 – 0.62ha
- Quarry/phase 8 – 0.41ha

The current total approved mining activities area is ±36.7ha to remain as is, which includes

all activities associated with the proposed bentonite mining such as any explorations required, site establishment, demarcations, excavations, any vehicular movements, access and internal roads, topsoil and overburden storage, implementation of rehabilitation measures etc.

Mining is conducted 'in-house' by means of excavators, front-end loaders and 15-ton dumper trucks. The mining method comprises of relatively opencast quarrying. The topsoil and the overburden are removed and stockpiled separately along the perimeter of the quarry. As and when the bentonite is being mined, it is trucked to the Processing Plant at the head offices on Erf 1412, Heidelberg.

Overburden is mined in 20m wide and 3-4m thick benches to expose 3m of bentonite down-dip to be mined. This process is repeated until all bentonite is mined out. Through this process the quarries depth will be a maximum of 30m deep, and no more than half of the quarry size will be open at a time.

Rehabilitation takes place on an ongoing basis as mining proceeds. As the quarry advances along strike, the overburden is progressively replaced to backfill the excavation. The backfilled area is then contoured to prevent erosion, which could be caused by rain and surface water flow. Finally the topsoil is then spread over the disturbed surface area to restore the land to its previous state.

The bentonite found on the mining area is emplaced as relatively thin seams of 1-4m thick. The topsoil is normally less than 30cm thick. Overburden consists of a sequence of siltstone with conglomerate lenses; the latter also form the footwall of the succession.

No new roads would have to be constructed to provide access to the proposed mining areas. The mine area is accessed directly off existing farm roads to remain as is throughout the mining process.

The site was visited by the specialist on 14 October 2025 to confirm current land use, animal sensitivity of the site and potential animal species impacts of proposed mining expansion activities. Seeing that all proposed mining expansion activities are located on completely transformed annually cultivated agricultural land with no sensitive terrestrial or aquatic habitat features i.e. wetlands or indigenous vegetation areas the survey can be conducted any time of the year.

Conservation value and sensitivity (terms which are often used interchangeably in ecological assessments) of habitats are a product of species diversity, plant community composition, rarity of habitat, degree of habitat degradation, rarity of species, ecological viability and connectivity, vulnerability to impacts, and reversibility of threats (which in this case generally refers to the rehabilitation potential of the habitat; high sensitivity habitats having low rehabilitation potential). Sensitive environmental features that were identified on the property include near natural indigenous vegetation remnants which exists throughout the property and consists of Critically Endangered - Eastern Ruens Shale Renosterveld also identified as Terrestrial Critical Biodiversity Areas ("CBA") as according to the Fine Scale Planning ("FSP") for Hessequa. The primary reason for selection of these areas as terrestrial CBAs is that it helps meet the national conservation target for threatened vegetation types, and ancillary reasons are that it offers opportunities for continuation of ecological connectivity especially related to the hydrological connectivity of the drainage lines. These areas also potentially provide habitats for indigenous animal and bird species of which may also include animal and bird SCC.

As per the 2023 Western Cape Biodiversity Spatial Plan (WCBSP) the current approved mining right quarries as located on existing annually cultivated land and proposed quarry amendments and additional two quarries as proposed falls outside of CBA or ESA areas.

All of the existing and proposed quarries as within approved mining right area are located on completely transformed cultivated agricultural lands and not within any remaining natural watercourses/wetlands or indigenous vegetation areas.

Active mining activities are currently ongoing within the approved mining right area and no indigenous animal or bird species of conservation concern (SCC) were recorded at the time of the site survey on the proposed mining areas nor its immediate surrounds which includes the indigenous vegetation areas as associated with the drainage lines not cultivated.



Figure 2: Locality of Heidelberg in the Western Cape.

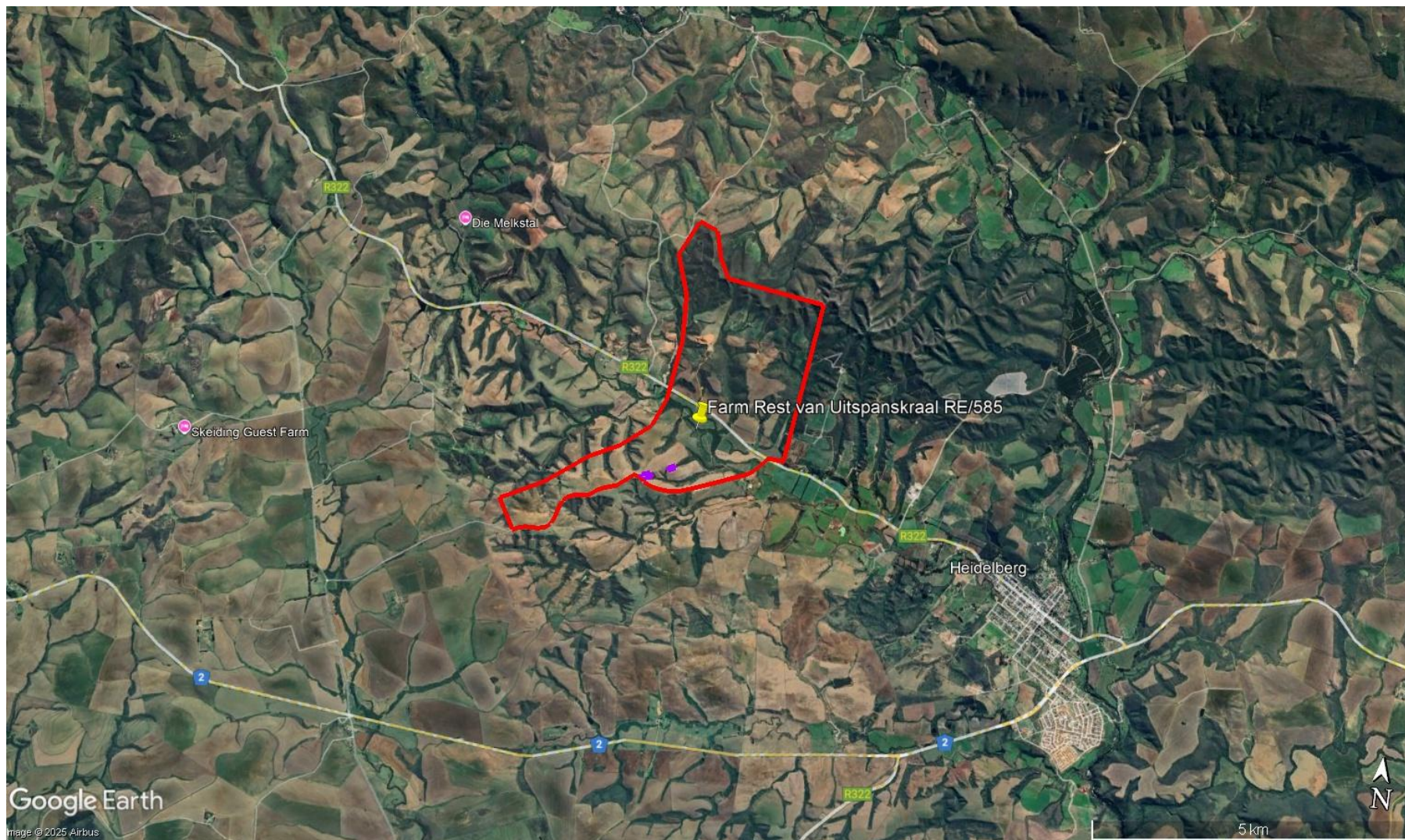


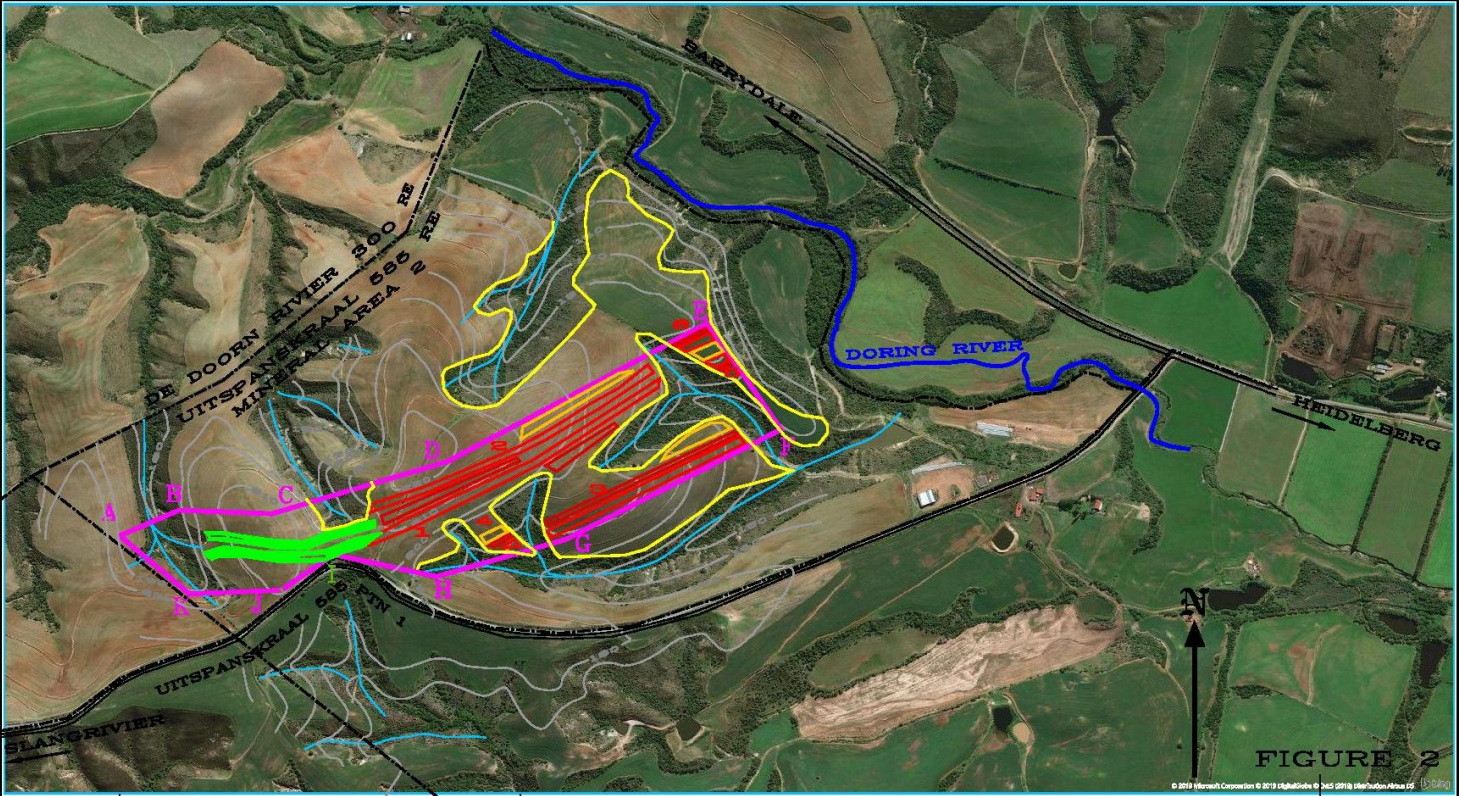
Figure 3: Locality of Farm Rest van Uitspanskraal RE/585 near Heidelberg in the Western Cape.

GPS co-ordinate for “middle” of existing mining right site - 34° 04' 34.07”S

20° 53' 22.40”E

The figure A B C D E F G H I J K represents a MINING AREA of approximately 40 ha situated on MINERAL AREA 2 on UITSPANSKRAAL 585 RE , MAGISTERIAL DISTRICT OF SWELLENDAM CO-ORDINATES OF MINING AREA

A	Y +10998.9	X +3771937.2	D	Y +10178.7	X +3771751.0	G	Y +9885.2	X +3771946.4	J	Y +10594.7	X +3772073.0
B	Y +10851.2	X +3771873.1	E	Y +9530.5	X +3771405.9	H	Y +10207.9	X +3772038.8	K	Y +10824.5	X +3772082.4
C	Y +10618.9	X +3771882.3	F	Y +9347.1	X +3771871.6	I	Y +10465.4	X +3771983.8			



y +11000	y +10000	LEGEND	IRMSA
		REHABILITATED QUARRIES	MINERAL AREA 2 ON UITSPANSKRAAL 585 RE DISTRICT SWELLENDAM
		QUARRIES STILL TO BE MINED	
x +3773000		OVERBURDEN	Layout plan
		TOPSOIL	NOV 2019 SCALE 1:12500 YH
		No go Area	

Figure 4.1: Existing approved mining layout map for Farm Rest van Uitspanskraal RE/585.

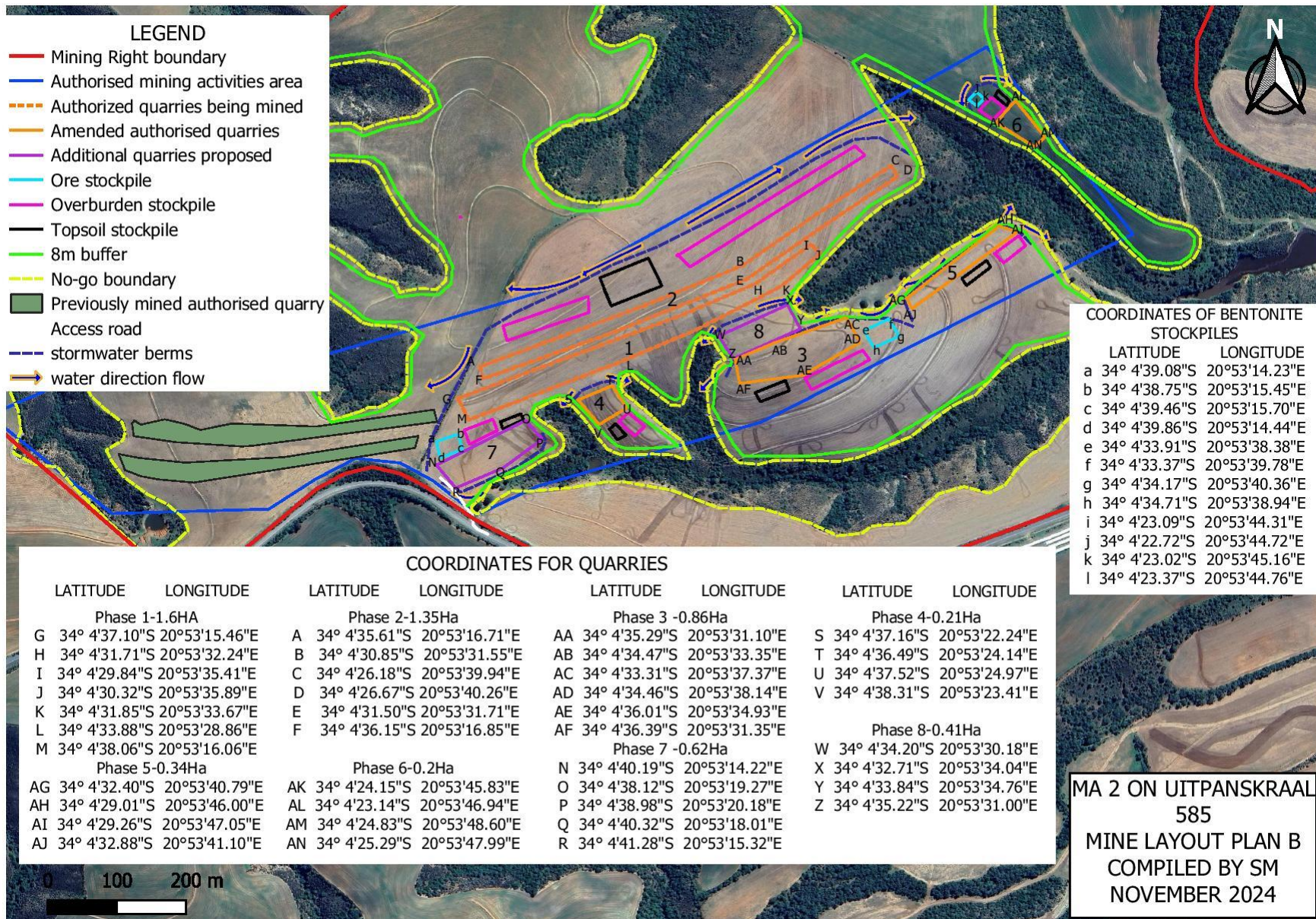


Figure 4.2: Proposed amended mining layout map for Farm Rest van Uitspanskraal RE/585 indicating approved mining right area and proposed quarries amendments and two additional quarries within approved mining right area.

WCBSP 2023 CBA and ESA Map Uitspanskraal MR Amendments

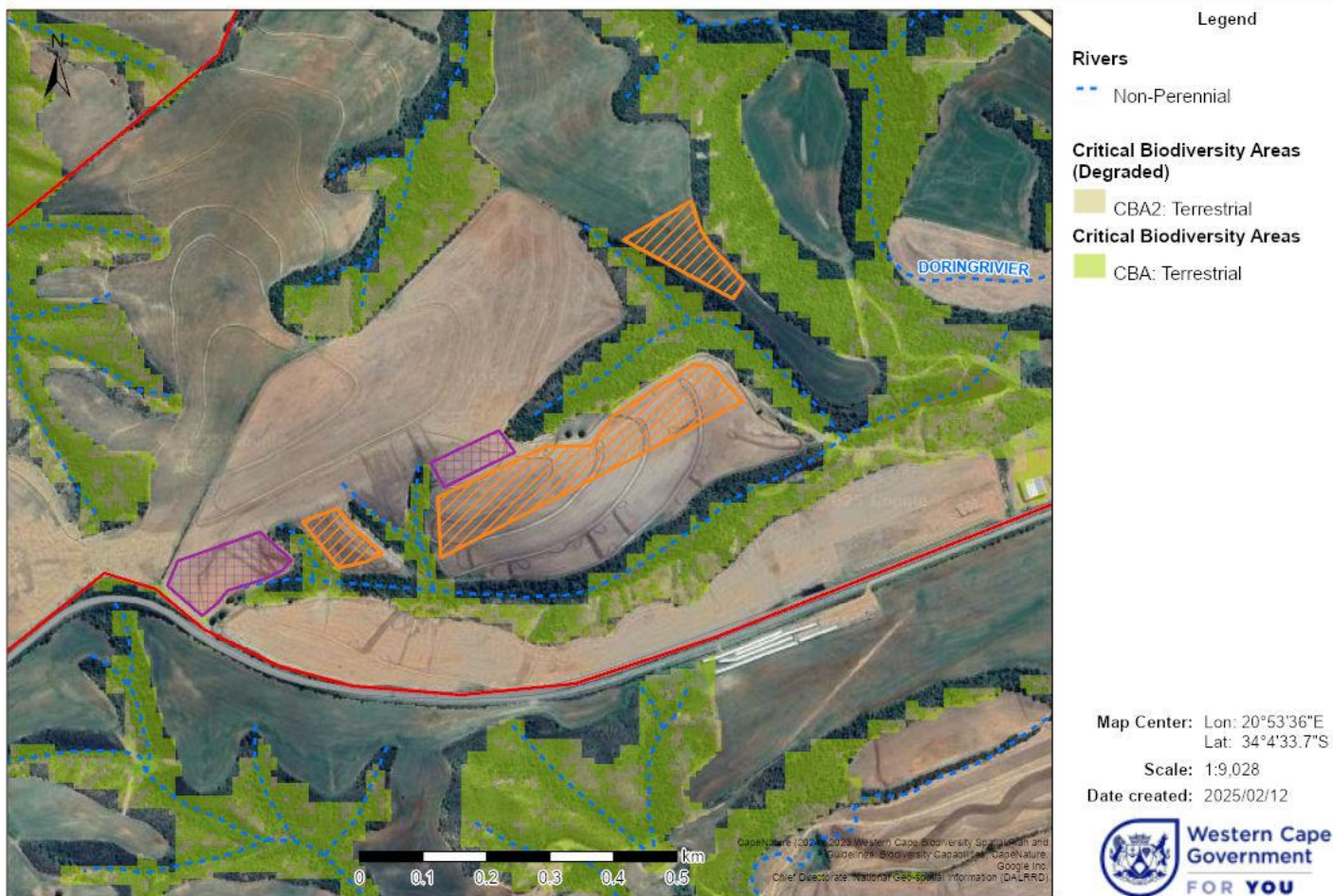


Figure 5: 2023 WCBSP land use map indicating mapped terrestrial and aquatic Critical Biodiversity Areas (“CBA”) and Ecological Support Areas (“ESA”) as according to Fine Scale Planning (“FSP”) for Hessequa in relation to the proposed mining activities amendment (orange) and additional areas (purple) as assessed for Farm Rest van Uitspanskraal RE/585 near Heidelberg in the Western Cape.



Site Photo 1: Phase 7 additional quarry proposed within approved mining right area on transformed cultivated land of Farm Rest van Uitspanskraal RE/585, below existing Phase 1 and 2 quarry area.



Site Photo 2: Phase 8 additional quarry proposed within approved mining right area on transformed cultivated land of Farm Rest van Uitspanskraal RE/585.

3. A DESCRIPTION OF THE METHODOLOGY USED TO UNDERTAKE THE SITE SURVEY AND PREPARE THE COMPLIANCE STATEMENT, INCLUDING EQUIPMENT AND MODELLING USED WHERE RELEVANT

A literature review and desktop analysis were undertaken prior to the field investigation, utilizing various sources including the South African National Biodiversity Institute (SANBI) data and other relevant sources. Recent and historical aerial imagery of the site was reviewed in order to identify points for investigation during the field survey. Utilizing the above information, a field investigation was undertaken whereby:

- Sites of geomorphological or topographic variance were identified and subjected to an evaluation of species present within transects established across the selected site.
- Species were identified and collated.
- Additional random sample points were selected from other sites surrounding the proposed impacted areas for comparative purposes.

The assessments entailed both a literature review of the region, as well as on site evaluations, during which specific primary data was collected and evaluated. In addition, the identification of key ecological features was undertaken allowing for the interpretation of the prevailing habitat form and associated processes.

All data collected in the field and during the literature review was evaluated and interpreted in order to provide an understanding of the nature of the prevailing environment at a landscape and habitat level. In addition, specific evaluation of data relating to habitat form and structure was undertaken, aiding in the identification of bio-physical anomalies within the prevailing environment. Such variance may be considered to be indicative of different habitat forms, which under consideration, may be of higher order ecological value in relation of the prevailing environment.

The study area was surveyed on foot, and all indigenous animal species and habitats recorded if present on the proposed development site and immediate surrounds. Various transects were conducted to cover the area. Particular attention was paid to potential fauna Species of Conservation Concern and their habitat that could have been present. Site photographs were taken.

4. THE MEAN DENSITY OF OBSERVATIONS/ NUMBER OF SAMPLES SITES PER UNIT AREA

Sampling was focused so as to obtain the best overall understanding of landscape and biodiversity conditions of the specific proposed prospecting areas, access roads and immediate surrounds. Photographs were taken to show the overall condition and land use of the proposed development areas and if present GPS co-ordinates were recorded for any species of conservation concern recorded on the site or immediate surrounds. No animal or bird species of conservation concern were recorded during the time of the survey. Refer to the maps under point 2 above indicating proposed expansion areas and associated access routes surveyed.

5. WHERE REQUIRED, PROPOSED IMPACT MANAGEMENT ACTIONS AND OUTCOMES OR ANY MONITORING REQUIREMENTS FOR INCLUSION IN THE EMPR

Mining can have both direct and indirect impacts on animal species of the development sites and surrounds. Direct impacts are those that destroys indigenous animal species habitats. Indirect impacts are those that may overtime lead to degradation or transformation of indigenous animal species habitats such as erosion.

The proposed mining activities can have the following potential impacts on indigenous animal species of the site and surrounds:

- Habitat destruction or degradation
- Disturbance during breeding season
- Physical death of species

The following impact management measures must be implemented and included in the EMPr, and should they be implemented the proposed mining expansion activities should not have any significant negative impacts on any indigenous animal present on the site or surrounds:

- At least three bird species of conservation concern are known to occur in the general area and habitat present on site (cultivated grainlands with renosterveld patches), namely Blue Crane (*Anthropoides paradiseus*), Denham's Bustard (*Neotis denhami*) and Black Harrier (*Circus maurus*). Mining activity should not proceed if there are Blue Cranes or Denham's Bustard breeding within the footprint or immediate surroundings. If a breeding pair is encountered, the mining should only proceed after the chick fledging.

- Mining activities must be limited to identified and demarcated annually cultivated agricultural land and only existing roads may be used.
- Remove and conserve topsoil layer and overburden material for rehabilitation after mining activities have ceased
- Invasive vegetation to be removed during mining activities to be disposed of at landfill site in such a manner that seeds must not be able to spread from the disposal site or during transportation.
- No trapping or hunting of any fauna or avifauna species may take place on the property.
- Any tortoises or fauna or avifauna species present on the site when excavations are taking place must be safely moved to adjacent areas not to be impacted by the mining activities.
- No disturbance should be allowed within the remaining indigenous vegetation areas outside of the proposed mining activity areas and existing access roads. This includes no excavations; no storage of topsoil, overburden or bentonite stockpiles, no new or widened roads, and all forms of temporary disturbance. If indigenous vegetation areas are disturbed they must be immediately rehabilitated with indigenous vegetation areas under guidance of suitably qualified rehabilitation specialist.
- No natural vegetation areas edges may be cleared or impacted upon by the proposed mining activities.
- Implement erosion and storm water runoff management measures to prevent (or if prevention is not possible limit) any erosion from occurring on the mining activity areas and surrounds.
- Backfill mined areas as soon as possible after mining completion with onsite excavated material.
- Only use topsoil and excavated material as derived and conserved from the proposed mining site to backfill and rehabilitate impacted areas.
- Monitor rehabilitated areas for signs of erosion for at least a year after rehabilitation and implement erosion rectification and prevention measures as and if required.
- Alien invasive and weed vegetation monitoring and removal must be undertaken for at least a year after mining activities have ceased and the site has been rehabilitated This must be done by the applicant, landowner or their appointed contractor, using CapeNature approved methodology.

6. A DESCRIPTION OF THE ASSUMPTIONS MADE AND ANY UNCERTAINTIES OR GAPS IN KNOWLEDGE OR DATA

An accurate idea of the priority indigenous habitat areas and sensitive ecological features was gained by inspecting the proposed development sites and surrounds and recording distribution and/or presence of indigenous habitats and animal species (if present), and confidence in the accuracy of the findings is very high. The overall confidence in the completeness and accuracy of the terrestrial animal species findings is considered to be very good.

A follow-up survey is not considered essential for decision-making.

7. ANY CONDITIONS TO WHICH THE COMPLIANCE STATEMENT IS SUBJECTED

It was concluded that should the proposed mitigation measures as listed under point 5 above be implemented that the overall significance of the impacts on animal sensitivity of the site and surrounds will be of overall low negative significance. All of the mitigation and monitoring

measures as listed under point 5 above must be included as part of the Environmental Management Programme conditions to be adhered to before, during and after the proposed mining activities.

8. REFERENCES

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APPENDIX A SPECIALIST CV

CURRICULUM VITAE – NICOLAAS WILLEM HANEKOM

Profession: Environmental Scientist and Environmental Assessment Practitioner

Date of Birth: 01/02/1967

BIOGRAPHICAL SKETCH

Nicolaas Hanekom is a qualified Environmental Assessment Practitioner ("EAP") who holds a Masters Technologiae, Nature Conservation ("Vegetation Ecology and Biodiversity Assessment") degree from the Cape Peninsula University of Technology. Nicolaas is certified in terms of section 20(3)(a) of the Natural Scientific Professions Act, 2003 (Act 27 of 2003), as a Professional Natural Scientist (Ecological Science) Registration Number: 4008274/11. He further qualified in Environmental Management Systems ISO 14001:2004, at the Centre For Environmental Management, North-West University, as well as Environmental Management Systems ISO 14001:2004 Audit: Internal Auditors Course to ISO 19011:2003

level, from the Centre for Environmental Management, North-West University qualifying him to execute audits to ISO/SANS environmental compliance and EMS standards.

He has also completed the suite of Greener Governance courses with certificates in;

- An Overview of Environmental Management at the Local Government Level, Centre for Environmental Management, North-West University;
- Greener Governance for Local Authorities, Centre for Environmental Management, North-West University;
- Tools for Integrated Environmental Management and Governance, Centre for Environmental Management, North-West University.

He further attended and obtained a certificate on Integrated Protected Area Planning at the Centre for Environmental Development, University of Kwa Zulu Natal and a certificate in Project Management (Theory and Practical), through CS Holdings. Nicolaas has lectured in two subjects at the Cape Peninsula University of Technology. He has 26 years of environmental planning experience, working for Free State and Western Cape departments of environmental affairs, where he reviewed and commented on development (EIA) applications, in the West Coast Region.

He has, as practising EAP been responsible for many environmental impact assessments and EIA applications, waste license and atmospheric emission license applications.

He has also been involved in the implementation of several environmental management systems. He has engaged successfully with various clients as set out below.

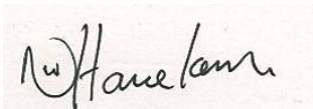
Areas of specialisation:	<ul style="list-style-type: none"> • Ecosystem (terrestrial and aquatic) monitoring and assessments • Design of monitoring programmes for ecosystems (terrestrial and aquatic) • Environmental Impact Assessments • River classification and environmental water requirements • Wetlands Delineation • River and Wetlands management • Water Use Authorization Applications • Water quality management • River Health Assessments
Countries of Work Experience:	South Africa (Northern Cape, Western Cape, Free State, Mpumalanga, Gauteng)
Employment Record	<ul style="list-style-type: none"> • Student at Bontebok National Park (1992) • Assistant Reserve Manager at Gariiep Dam Nature Reserve, Free State (1993 - 1998) • Reserve Manager, Conservation Services Manager for Western Cape Nature Conservation Board (1998 - 2006) • External Lecturer at Cape Peninsula University of Technology (2003 - 2005) • Director: Environmental Management at Cape Lowlands Environmental Services (2006 – 2010) • Director, Environmental Management and lead Environmental Impact Assessment Practitioner at Eco Impact (Pty) Ltd (2010 – to August 2019)

	<ul style="list-style-type: none"> • Director, Environmental Management and lead Environmental Impact Assessment Practitioner at Enviro-EAP (Pty) Ltd (September 2019 – to date)
Professional membership, accreditations and courses	<ul style="list-style-type: none"> • South African Council for Natural Scientists Professions Pri.Sci.Nat (Ecological Science) • Riparian vegetation identification and health assessment. Internal Western Cape Nature Conservation short course presented by Dr C Boucher (Stellenbosch University) in 2000. • SASS5 Aquatic Biomonitoring Training Course. 2 to 5 September 2013. Ground Truth Water and Environmental Engineering consultancy in partnership with the Department of Water Affairs. • Workshop on “Section 21(c) and (i) Water Use Training: Understanding Watercourses and Managing Impacts to their Characteristics”. 10 May 2017. Presented by Dr Wietsche Roets of the Department of Water and Sanitation (Sub-Directorate: Instream Water Use).
Summary of experience	<p>1992: South African National Parks. Student at Bontebok National Park with management and monitoring actions related to the Breede River.</p> <p>1993 -1998: Free State Nature Conservation. Ecological management and monitoring actions related to the Gariep Dam, Orange and Caledon Rivers.</p> <p>1998 -2006: CapeNature. Ecological management and monitoring actions related to the Berg River Estuary, Verlorenvlei, Lamberts bay's Jackalsvlei, Wadrift Soutpanne, Oliphant's River mouth, Rocherpan Nature Reserve, etc. Review and assessment of EIA applications, inclusive of Freshwater ecology. Did some site visits with Department of Water Affairs and Forestry (Hester Lyons) to confirm the presence of aquatic ecological features during EIA water use registration applications.</p> <p>2006 to date: Cape Lowland Environmental Services, Eco Impact Legal Consultant and Enviro-EAP. Ecological (Freshwater and aquatic) Specialist input, assessment, monitoring and reports.</p>
Publications and assessment reports	<p>Just to name a few. Was involved in many Ecological Assessments, monitoring and inputs in EIA applications.</p> <ul style="list-style-type: none"> • Elandskloof Farm 475 Citrusdal Biodiversity Baseline Survey. August 2010. This Biodiversity Assessment Covering Terrestrial and Aquatic Aspects to Inform Decisions Regarding The Proposed Elandskloof Weir Flood Damage Project On Farm 475, In The Citrusdal Area. • Cape Solar Energy Electricity Generation Facility. Farm 187/3 & 187/13 Kenhardt. Biodiversity And Ecological Baseline Survey. January 2011. (Included Terrestrial and aquatic ecological assessments and water use authorization applications) • Prieska Photovoltaic Power Generation Project. Prieska Commonage Northern Cape. Biodiversity And Ecological Baseline Survey. July 2011. (Included Terrestrial and aquatic ecological assessments and water use authorization applications) • Witteklip Erf 123 Extension, Vredenburg. Biodiversity Baseline Survey. Updated - October 2012 (Included Terrestrial and aquatic ecological assessments and water use authorization applications) • Baseline Biodiversity Survey And Wetland Delineation for ECCA Holdings: Cape Bentonite Mine on Erf 1412 Near Heidelberg. Prepared for: Shangoni Management Services Pry (Ltd). October 2014. • Freshwater Impact Assessment Laingsburg Flood Damage Repairs & Storm Water Infrastructure. 18 February 2016. • Ecological Assessment for Swartland Municipality - Upgrades To

	<p>Voortrekker/Bokomo Road And Voortrekker/Rozenburg Road Intersections and Upgrade to the Diep River Bridge, Malmesbury on A Portion Of Erf 327, Malmesbury (Road) Erf 1530, Diep River Bridge Crossing, and Erf 1528, Property South of Diep River where Road Widening and Turning Circle Will Be Constructed. March 2016. (Freshwater Ecology Inputs and Water Use Registration)</p> <ul style="list-style-type: none"> • Freshwater Impact Assessment. McGregor Bridge, Robertson Bridge and Willem Nels River Maintenance Management Plan. 24 June 2016. (Freshwater Ecology assessment and input as well as Water Use Registration) • Water Use Authorization Application Risk Matrix. Orange Grove Trust Vegetation Clearing and Agricultural Development on Portion 4 of Farm Glen Heatlie No 316, Worcester. 12 June 2017. (Freshwater ecological inputs in EIA process and Water Use Registration). • Water Use Authorization Application Risk Matrix Prepared For: Witzenberg Municipality Sand Mine Farm 1 Prince Alfred Hamlet. 28 March 2017. (Freshwater ecological inputs in EIA process and Water Use Registration). • Proposed Hartmanshoop Agri Vegetation Clearing Project and Irrigation on Erf 686, Laingsburg. 12 August 2017. (Freshwater ecological inputs in Water Use Registration). • County Fair: Hocraft Abattoir And Rendering Facility Waste Water Treatment Works "CF Hocraft WWTW" Mosselbank River Second Quarter 2018 Biomonitoring Report. June 2018. (Done quarterly biomonitoring for the last three years).
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CERTIFICATION

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe my qualifications, my experience, and me.



Nicolaas Hanekom Pri Sci Nat (Ecology).
Registration number 400274/11