

## TERRESTRIAL BIODIVERSITY COMPLIANCE STATEMENT

NIEUWE RUST HOUSING PROJECT ON ERF 182 AND 184 ON  $\pm 3.45$ HA. AREA A =  $\pm 0.92$ HA AND AREA B  $\pm 2.52$ HA. PROPOSED LAYOUT = 91 UNITS (10M X 15M =  $\pm 150$ M<sup>2</sup>)  
A = 31 UNITS AND B = 60 UNITS.



**Report Author:** Mr Nicolaas Willem Hanekom

A handwritten signature in black ink that reads "N.W. Hanekom".

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**JANUARY 2026**



## 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) 004415**

**20 JANUARY 2026**

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Signature of the EAP/ Specialist:

Date:

**Enviro-EAP (Pty) Ltd**

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Name of company (if applicable):



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**1. INTRODUCTION**

**Proposed development and area assessed.**

Nieuwe Rust Housing project on erf 182 and 184 on ±3.45ha. Area A = ±0.92ha and Area B ±2.52ha. Proposed Layout = 91 units (10m x 15m = ±150m<sup>2</sup>) A = 31 units and B = 60 units.

**Water**

Portions A & B will require new internal reticulation networks, which will be 90mm diameter uPVC Class 12 pipes and will connect to the existing water mains in Olyf Street (Portion A) and Arcarcia Street (Portion B). Valves and hydrants will be provided at suitable positions.

**Sewer**

The internal network will be 160 mm diameter class 34 uPVC pipes with 110 mm diameter erf connections.

**Stormwater**

Stormwater from Erf 184 will all be collected in stormwater pipe infrastructure in road reserves and connected to Jakaranda street stormwater infrastructure in a southern direction towards existing town stormwater infrastructure. The southern section of Erf 182 will all be collected in stormwater pipe infrastructure in road reserves and connected to Jakaranda street stormwater infrastructure in a southern direction towards existing town stormwater infrastructure. A small area of the development stormwater will be collected in stormwater pipe infrastructure in road reserves and release to the north east in a stormwater pond with a 1:50 year flood overflow release into the surrounding area which will allow for when stormwater is release to seep through the cultivated land towards the non-perennial river.



## Roads

The new roads for Portions A and B will connect to the existing Olyf Street and Arcarcia Street respectively. The new internal roads will consist of a combination of premix and paved surfaces and will be 10m and 8 m wide, but not longer than 1km.

The Department of Environmental Affairs screening report from the national web based environmental screening tool reported a “Very High sensitivity for terrestrial biodiversity” sensitivity due to the presence of ESA 2 mapped in the northeastern corner. The site sensitivity verification and the specialist assessment does not agree with the designation of “very high” terrestrial biodiversity designation in terms of the national web based environmental screening tool and therefore a terrestrial biodiversity impact assessment was not conducted. A non-perennial river and its catchment was mapped in the desktop study originating in the north-eastern corner of erf 182 flowing through the cemetery and agricultural lands in a northeastern direction (mapped ESA). No natural aquatic features were observed on the site during the time of the survey. The correctly delineated non-perennial river is outside the development area. The non-perennial river has a very poor Present Ecological State as a result of the farming and ploughing activities through it (Refer to Aquatic Compliance Statement for more details and photographs). This compliance statement report presents the findings of the terrestrial biodiversity verification and site survey that was conducted by Nicolaas Hanekom.

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

- Contact details and curriculum vitae of the specialist including SACNASP registration number and field of expertise; - **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.**
- Where required, proposed impact management actions and outcomes or any monitoring requirements for inclusion in the EMP; **Refer to section 4.**
- A description of the assumptions made and any uncertainties or gaps in knowledge or data; **Refer to section 5.**
- The mean density of observations/ number of samples sites per unit area; and **Refer to section 6.**
- Any conditions to which the compliance statement is subjected. **Refer to section 7.**

### **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”), Pri Sci Nat (Reg. No. 004415) Ecological Science (Pri.Sci.Nat); Aquatic Science & Conservation Science (Cand.Sci.Nat) 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. Scope and Objectives**

The protocol<sup>1</sup> provides the criteria for the reporting of requirements for the assessment and reporting of impacts on terrestrial biodiversity for activities requiring environmental authorisation.

### **General Information**

An applicant intending to undertake an activity identified in the Scope of this Protocol, on a site identified as being of “very high or high sensitivity” for terrestrial biodiversity on the national web based environmental screening tool must submit a Terrestrial biodiversity Impact Assessment Report. However, where the information gathered from the Initial Site Sensitivity Verification and the specialist assessment differs from the designation of “very high or high” terrestrial biodiversity sensitivity from the national web based environmental screening tool and it is found to be of a “medium or low” sensitivity, then a terrestrial biodiversity impact assessment is not required. Should this apply, a Biodiversity Compliance Statement is to be provided.

The site visit and verification concluded that the site has very low terrestrial biodiversity.

## **1.3. Terms of Reference**

The Terrestrial Biodiversity Compliance Statement, must be prepared by a suitably qualified

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<sup>1</sup> Published in Government Notice No. 320 GOVERNMENT GAZETTE 43110 20 MARCH 2020. This gazette is also available free online at [www.gpwonline.co.za](http://www.gpwonline.co.za)



specialist, on the site being submitted as the preferred development site and must verify:

- That the site is of “low” sensitivity for terrestrial Biodiversity; and
- Whether or not the proposed development will have any impact on the biodiversity feature.

## **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**

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). According to *The Vegetation Map of South African, Lesotho and Swaziland* (VEGMAP), (SANBI, 2018) the vegetation of study area used to be Namaqualand Heuweltjieveld and Southern Namaqualand Quartzite Klipkoppe Shrubland, which are categorised as Least Concern in terms of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) List of Threatened Ecosystems in Need of Protection (dated 2022).

### **SKn 4 Namaqualand Heuweltjieveld**

VT 31 Succulent Karoo (88%) (Acocks 1953). LR 57 Lowland Succulent Karoo (79%) (Low & Rebelo 1996).

**Vegetation & Landscape Features** Undulating plains leading up to the Escarpment with a mosaic of communities on heuweltjies (slightly raised, rounded termite mounds up to 10 m in diameter) and in between the heuweltjies. Low shrubland (canopy cover 20–45%) dominated by leaf-succulent shrubs.

**Important Taxa** Succulent Shrubs: *Drosanthemum hispidum* (d), *Euphorbia ephedroides* var. *ephedroides* (d), *Jordaaniella cuprea* (d), *Lampranthus otzenianus* (d), *Ruschia leucosperma* (d), *R. robusta* (d), *Salsola namibica* (d), *Antimima compacta*, *Aridaria noctiflora* subsp. *noctiflora*, *Didelta carnosus* var. *carnosus*, *Eberlanzia parvibracteata*, *Lycium cinereum*, *Manochlamys albicans*, *Salsola aellenii*, *S. aphylla*, *Sarcocaulon flavescens*, *Tetragonia fruticosa*, *T. spicata*. Low Shrubs: *Galenia fruticosa* (d), *Lebeckia halenbergensis* (d), *Anthospermum aethiopicum*, *Berkheya fruticosa*, *Galenia africana*, *Hermannia trifurca*, *Hirpicium alienatum*, *Limeum africanum*, *Pelargonium praemorsum*, *Pentzia globosa*, *Pteronia glabrata*, *Tripteris oppositifolia*, *Zygophyllum retrofractum*. Herbs: *Arctotis fastuosa* (d), *Dimorphotheca sinuata* (d), *Leysera tenella* (d), *Oncosiphon suffruticosum* (d), *Osteospermum pinnatum* (d), *Tripteris microcarpa* (d), *Amellus microglossus*, *A. strigosus* subsp. *pseudoscabridus*, *Emex australis*, *Felicia bergeriana*, *F. tenella* subsp. *longifolia*, *Pharnaceum croceum*, *Plantago cafra*, *Rhynchopsidium pumilum*, *Ursinia cakilefolia*, *Zaluzianskya villosa*.



Geophytic Herb: *Oxalis annae* (d). Succulent Herbs: *Mesembryanthemum guerichianum* (d), *Psilocaulon junceum* (d), *Tetragonia microptera* (d). Graminoids: *Ehrharta calycina* (d), *E. longiflora* (d), *E. pusilla*, *Pentaschistis airoides*, *Tribolium echinatum*, *T. utriculosum*.

Southern Namaqualand Quartzite Klipkoppe Shrubland vegetation is a low-to-medium height shrubland, often dominated by leaf-succulent or deciduous-leaved woody shrubs. It forms part of the "broken veld," where vegetation is denser in rocky areas, providing shelter and specialized habitats, rather than on open sandy flats. The shrubland is heavily populated by Mesembryanthemaceae (vygies) such as *Ruschia* (e.g., *Ruschia viridifolia*) and *Leipoldtia laxa*. Common woody shrubs include *Zygophyllum morgsana* and *Lycium ferocissimum*. The quartz-dominated areas (Klipkoppies) are known for high levels of endemism in dwarf succulent shrubs. These include specialized, tiny succulents such as *Crassula spp.*, *Adromischus spp.*, *Pelargonium spp.*, and various stapeliads.

Only pioneer species with a sparsely vegetated cover were recorded on site as a result of the historical cultivation of the area as well as community impacts and small farm animal grazing of the site. The following species could be recorded during the survey: *Cyanella hyacinthoides*, *Lapeirousia silenoides*, *Ruschia muelleri*, *Tribolium utriculosum*, *Augea capensis*, *Tetraena simplex*, *Galenia africana* and *Galenia fruticosa*.



**Photograph 1:** Status and habitat condition on erf 182.



**Photograph 2:** Status and habitat condition on erf 184.



**Photograph 3:** Status and habitat condition on erf 184.



**Photograph 4:** View of typical Southern Namaqualand Quartzite Klipkoppe Shrubland and Namaqualand Heuweltjieveld vegetation structure.

No Terrestrial CBA or ESA was mapped on the site. It is clear from the photographs that the vegetation structure of the mapped vegetation types are not represented on the site. This confirm that the impact areas are not a priority biodiversity site and therefore correctly not mapped as a CBA or ESA (priority conservation area).

No Freshwater Ecosystem Priority Area (FEPA) are present inside or close to the study area.

The development will have a low Site Ecological Importance on the Project Area Of Influence.

This compliance statement report presents the findings of the biodiversity, including plants and animal species verification and site survey that was conducted by Nicolaas Hanekom.

The information gathered from the site sensitivity verification does differs from the Environmental Screen report classification of very-high sensitivity. The development of the site would have a **Low Negative** impact with no mitigations required. The proposed development is therefore supported from a terrestrial biodiversity perspective.



### **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. Utilising 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 will be 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 differing 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 species growing in the greater study area were noted. The site was walked to cover the area. Particular attention was paid to potential fauna and flora Species of Conservation Concern that could have been present.

The botanical conservation value of this entire area is Low, and hence no map of the constraints on this site is provided.

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

No management, mitigation or monitoring requirements for inclusion in the Environmental Authorization and its conditions, or the Environmental Management Plan is required.



## **5. A DESCRIPTION OF THE ASSUMPTIONS MADE AND ANY UNCERTAINTIES OR GAPS IN KNOWLEDGE OR DATA**

The site visit was carried 15 August 2024. The peak flowering time in this region is spring, which occurs from August to October. The survey was done in the optimal period and the information gathered was sufficient to do the assessment due to the transformed nature of the site. A fairly accurate idea of the priority conservation areas and botanical species was gained, due to the use of a combined habitat and species-based approach, and confidence in the accuracy of the findings is fairly high. The overall confidence in the completeness and accuracy of the terrestrial biodiversity findings at this point in time is considered to be good. A follow-up survey is not considered essential for decision-making.

## **6. THE MEAN DENSITY OF OBSERVATIONS/ NUMBER OF SAMPLES SITES PER UNIT AREA**

Standard methods of evaluation were used. A hand-held Garmin ® GPSMap 64s was used to record 'sample' waypoints and the 'sample track'. At the 'sample waypoints' specific details of the surrounding vegetation and features of habitat were recorded, and photographs taken to support the general observations made on the site.

## **7. ANY CONDITIONS TO WHICH THE COMPLIANCE STATEMENT IS SUBJECTED**

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.

## **8. REFERENCES**

CapeNature. 2024. 2023 Western Cape Biodiversity Spatial Plan and Guidelines Overview V2.0. Unpublished Report.

Mucina, L., Rutherford, M.C. and Powrie, L.W. 2018. The Vegetation Map of South Africa, Lesotho and Swaziland. South African National Biodiversity Institute (2006-2018).



## APPENDIX A SPECIALIST CV

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### CURRICULUM VITAE – NICOLAAS WILLEM HANEKOM

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**Profession:** Environmental Scientist and Environmental Assessment Practitioner

**Date of Birth:** 01/02/1967

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### BIOGRAPHICAL SKETCH

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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 Hanekom is a registered Professional Natural Scientist in the ecological science field with the South African Council for Natural Scientific Professions ("SACNASP"), Pri Sci Nat (Reg. No. 004415) Ecological Science (Pri.Sci.Nat); Aquatic Science & Conservation Science (Cand.Sci.Nat). 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.

<p><b>Areas of specialisation:</b></p>	<ul style="list-style-type: none"> <li>• Ecosystem (terrestrial and aquatic) monitoring and assessments</li> <li>• Design of monitoring programmes for ecosystems (terrestrial and aquatic)</li> <li>• Environmental Impact Assessments</li> <li>• River classification and environmental water requirements</li> <li>• Wetlands Delineation</li> <li>• River and Wetlands management</li> <li>• Water Use Authorization Applications</li> <li>• Water quality management</li> <li>• River Health Assessments</li> </ul>
<p><b>Countries of Work Experience:</b></p>	<p>South Africa (Northern Cape, Western Cape, Free State, Mpumalanga, Gauteng)</p>
<p><b>Employment Record</b></p>	<ul style="list-style-type: none"> <li>• Student at Bontebok National Park (1992)</li> <li>• Assistant Reserve Manager at Gariep Dam Nature Reserve, Free State (1993 - 1998)</li> <li>• Reserve Manager, Conservation Services Manager for Western Cape Nature Conservation Board (1998 - 2006)</li> <li>• External Lecturer at Cape Peninsula University of Technology (2003 - 2005)</li> <li>• Director: Environmental Management at Cape Lowlands Environmental Services (2006 – 2010)</li> <li>• Director, Environmental Management and lead Environmental Impact Assessment Practitioner at Eco Impact (Pty) Ltd (2010 – to August 2019)</li> <li>• Director, Environmental Management and lead Environmental Impact Assessment Practitioner at Enviro-EAP (Pty) Ltd (September 2019 – to date)</li> </ul>
<p><b>Professional membership, accreditations and courses</b></p>	<ul style="list-style-type: none"> <li>• South African Council for Natural Scientists Professions Pri.Sci.Nat (Ecological Science)</li> <li>• Riparian vegetation identification and health assessment. Internal Western Cape Nature Conservation short course presented by Dr C Boucher (Stellenbosch University) in 2000.</li> <li>• SASS5 Aquatic Biomonitoring Training Course. 2 to 5 September 2013. Ground Truth Water and Environmental</li> </ul>



	<p>Engineering consultancy in partnership with the Department of Water Affairs.</p> <ul style="list-style-type: none"><li>• 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).</li></ul>
<b>Summary of experience</b>	<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, Wadriif 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>
<b>Publications and assessment reports</b>	<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"><li>• 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.</li><li>• Cape Solar Energy Electricity Generation Facility. Farm 187/3 &amp; 187/13 Kenhardt. Biodiversity And Ecological Baseline Survey. January 2011. (Included Terrestrial and aquatic ecological assessments and water use authorization applications)</li><li>• 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)</li><li>• Witteklip Erf 123 Extension, Vredenburg. Biodiversity Baseline Survey. Updated - October 2012 (Included Terrestrial and</li></ul>



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 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)
- 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

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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 004415