

LEGEND	
cdc	- circular drain cover
sqdc	- square drain cover
re	- rodding eye
cp	- catchpit
CL	- Cover Level
IL	- Invert Level
TP	- Top of Pipe
IP	- Invert of Pipe
⊙	- Survey Station

Ref: 1) Co-ordinate System WGS 84/19°
 2) Height Datum : M.S.L (TSM)
 3) S. G. Noting 900

dh&a
david hellig & abrahamse
 professional land surveyors
 258 Main Street
 PAARL 7646

Telephone : 021-8724086 web site : www.dhale.co.za
 email : david@dhale.co.za

project	
PLAN OF SUBDIVISION	
Erf 31371 Paarl	
Scale	1 / 500@A3
Date	April - October 2022
File No	P3402/10(A)
Plan No	7 REV2

Note :
 Control points to be checked and verified before use

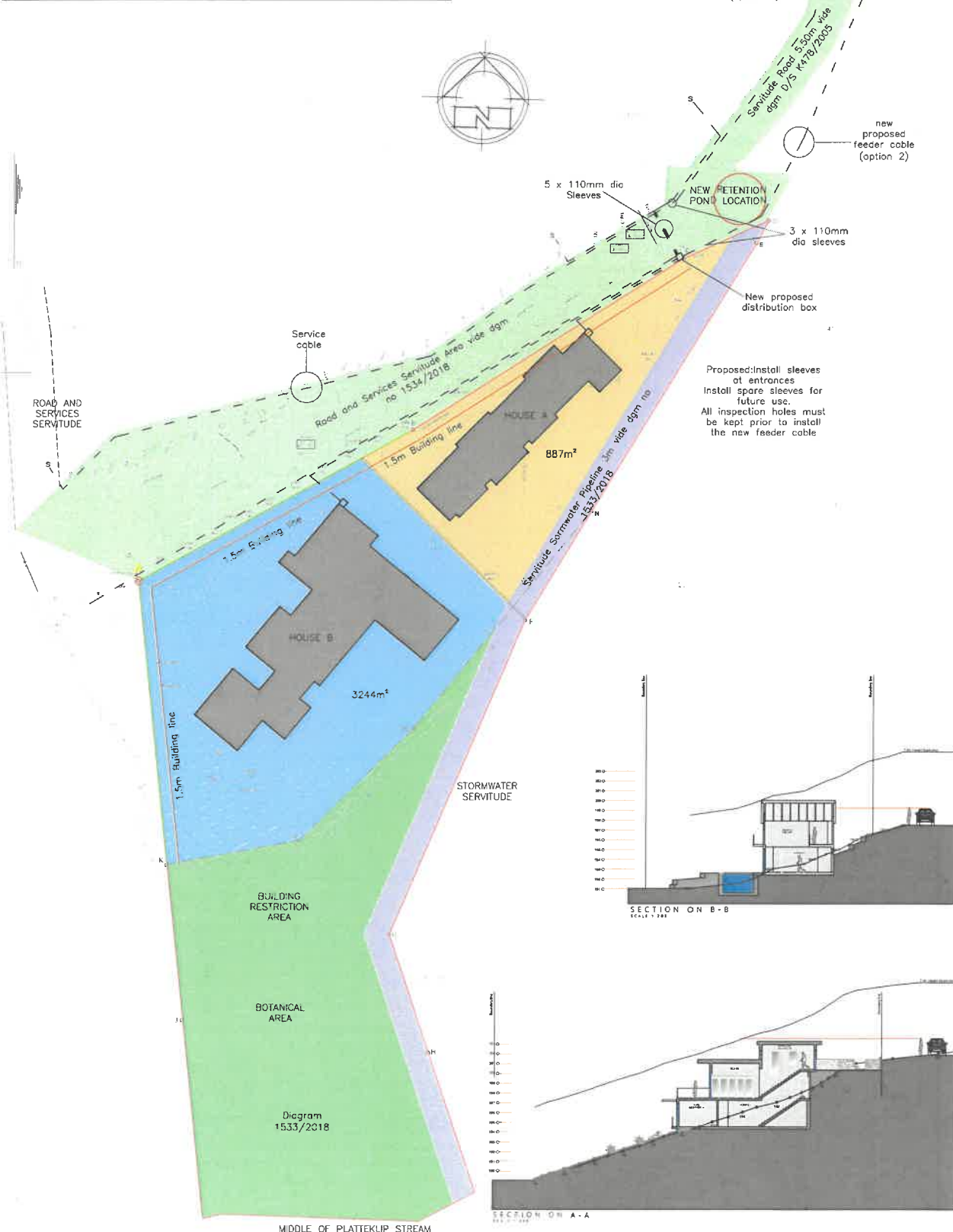
CONTROL POINTS			
	Y System WG19*	X	Z
TT1	+4 257,08	+33 476,08	201,06
TT2	+4 205,97	+33 498,72	193,63
TT3	+4 256,90	+33 498,22	184,21
TT4	+4 228,80	+33 471,74	193,08

MAIN FIGURE DATA			
SIDES Metres	ANGLES OF DIRECTION	CO-ORDINATES Y System WG19*	
		Y	X
	Constant	± 0,00	±3 700 000,00
AB	39,88	240 59 30	A
BC	40,85	237 34 00	B
CD	11,62	245 53 00	C
DE	3,18	27 38 40	D
EF	56,33	31 16 00	E
FG	43,74	23 07 00	F
GH	15,97	341 33 50	G
HJ	31,58	97 33 00	H
JA	56,50	174 05 20	J
HH		341 33 50	
JJ		354 05 20	

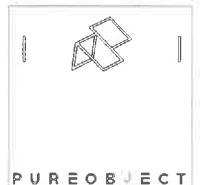
SERVIDUTE DATA			
KL	17,18	259 34 40	K
LM	20,41	225 04 00	L
MN	35,85	219 10 00	M
NF	16,37	31 16 00	N
JK	20,01	174 05 20	

Note :
 Erf 31371 Paarl is to be subdivided into :
 a) Ptn A ± 887m²
 b) Ptn B ±3244m²

Site Development Plan Erf 31371 Paarl		
Size	41331m ²	
Subdivision	Portion A: 887m ² Portion B: 3244m ²	
Zoning	Conventional Housing Zone	
Coverage	60%	Portion A: 12% Portion B: 23%
Density*	Main dwelling only	In order
Floor area *	300m ²	Portion A: 381m ² Portion B: 402m ²
Height *	7.5m	7.5m – refer to elevation plan
Street Building line	4.5m	N/A (access via right of way servitude)
Common Building line	1.5m	1.5m
Servitudes *	Building restriction servitude area of 1752m ²	Portion A & B: As indicated SG 1533/2018
	3m stormwater servitude	Portion A & B: As indicated SG 1533/2018
*Note	Refer to restrictions: Conditions of Approval: 16-31-2017	



Dwg info: Scale
 Locality Plan: 1:200 / 1:250
 Drawn by: Dwg no. 2023/LP/108
 PC





Memo

To:	EXECUTIVE DIRECTOR: PLANNING & ECONOMIC DEVELOPMENT (ATTENTION: C. VAN DER BANK)
From:	MANAGER: INFRASTRUCTURE DEVELOPMENT
Enquiries:	L. PIENAAR
Collaborator number:	
Reference number:	15/4/1 (31371) P (1594)
Date:	18 January 2023
Subject:	APPLICATION FOR SUBDIVISION AND AMENDMENT OF CONDITIONS OF APPROVAL, ERF 31371, PAARL

Time Limit on Conditions: These conditions will be limited to a period of 2 (two) years from the date as on the covering memo from this department. If after this period no construction has commenced (this excludes any preparatory work or site clearance) all the studies carried out for the proposed development need to be updated and revised accordingly, this shall include compliance with the latest legislation, amended legislation, latest or amended standards and revised master planning.

NOTE: This comment covers a number of disciplines, and each section needs to be dealt with by a competent specialist in that field co-ordinated by the consultant managing the application. No correspondence will be entered into with individual consultants

THE FOLLOWING CONDITIONS WILL APPLY

1 STREETS & TRAFFIC

- 1.1 Any new roads/streets and accesses will be the responsibility of the developer, including all internal and bulk connectors; and
- 1.2 Any alterations to the existing road network will be the responsibility of the developer which includes design, approval, and construction of any additional traffic control and or traffic calming measures.

2 STORMWATER

- 2.1 Any new stormwater networks will be the responsibility of the developer, including all internal and bulk connectors;
- 2.2 Only pre-development run-off of a 1:2 year storm event will be accepted into the existing system. Provision must be made to accommodate the detention of run-off for a 1:50 year storm event; and
- 2.3 Provision must be made for an effective rainwater harvesting system to be planned and designed for all roof water. The volume of the storage facilities should be based on 0.02m³/m² roof area.

3 WATER

- 3.1 *A metered water connection is available from the servitude road at actual cost;*
- 3.2 *There is not enough pressure in the water reticulation system to the area, both properties must be equipped with individual water tanks fitted with boosters for provision of fire water supply;*
- 3.3 Each individual portion must be provided with a separate water connection and a separate water meter to municipal specifications;
- 3.4 All the metered connections must be installed one meter inside the erf boundary of each portion;
- 3.5 Water saving devices shall be installed in toilets, bathrooms and basins; and
- 3.6 Any existing system that is to remain shall be upgraded to minimum municipal standards.

4 WASTEWATER SERVICES

- 4.1 All individual portions must be provided with a separate wastewater connection;
- 4.2 All the connections must be installed one meter inside the erf boundary of each portion; and
- 4.3 Any existing system that is to remain shall be upgraded to minimum municipal standards.

5 SOLID WASTE

- 5.1 The Municipality undertakes, after the proclamation of the development, to remove household refuse in accordance with its by-laws and shall make its own arrangements with the occupants of erven/home owner's organisation in the development, for the removal of such household refuse; and
- 5.2 A waste recovery/recycling initiative has been implemented in Drakenstein and the development will have to be prepared to comply with any requirements as the project is rolled out.

6 DEVELOPMENT CHARGES

- 6.1 Based on the information provided in the application, the Development Charge payable by the developer is **R50 585 (Excl VAT)**. The levy is valid until **30 June 2023** where after a new calculation is required. The value has been calculated as follows:
 - 6.1.1 Water = R12262.00
 - 6.1.2 Sewer = R7556.00
 - 6.1.3 Roads = R25534.00
 - 6.1.4 Stormwater = Nil
 - 6.1.5 Solid Waste = R5233

7 GENERAL

- 7.1 *When at any stage in future the municipality is required to take over ownership and maintenance of civil infrastructure, it will be the responsibility of the property owners to ensure all water and waste water connections adhere to municipal standards and by-laws;*

- 7.2 When any service is to be taken over by Drakenstein Municipality, any damage caused due to the construction of houses or any other construction activity shall be repaired by the Developer. Failure to do so will result in clearances and occupation certificates being withheld and remedial works shall be done by Drakenstein Municipality for the cost of the developer;
- 7.3 The developer is responsible for the payment of a Developers Charge (water, sewer, stormwater, solid waste and roads) which can be discounted against the bulk service cost needed for the development;
- 7.4 The developer is responsible for the funding of all connections to the bulk services and all internal works;
- 7.5 All of the works, including but not limited to; roads, stormwater, water, sewers, landscaping, irrigation, etc. shall be designed by a suitably registered (ECSA registration for the civil works and SACLAP registration for the landscaping) person and any such works shall be constructed under supervision of such registered person. All such design plans shall be submitted to the Civil Engineering Services Department of Drakenstein Municipality for approval prior to the commencement of construction;
- 7.6 All works where applicable shall be constructed to at least the minimum standards as set out in, Engineering Services: Municipal Standards;
- 7.7 Where applicable all water network, (downstream of the valve immediately upstream of the bulk water meter, upstream of the connection to the existing system or intersection point with the existing road), sewer network, stormwater network and road network components shall be a private combined system and shall be indicated as such on all documents and plans;
- 7.8 All private combined systems (including but not limited to water, sewer, stormwater, roads, irrigation, etc.) shall be the joint and several responsibility (including but not limited to the administration of the joint account and operation and maintenance of the system) of the members of the homeowners association/body corporate and must be noted as such in any constitution of any such body and any such constitution must be submitted for approval by council. This constitution shall be notarially linked to each separate title deed;
- 7.9 The above conditions are to be complied with in stages.
- 7.9.1 Requirements associated with the preparation of plans, drawings, permits, agreements and approvals, shall be complied with prior to construction;
- 7.9.2 Requirements associated with the completion of construction, development charges, as-built drawings, maintenance management plans, agreements, etc. These will be complied with prior to the transfer of any property or occupation of any property/building in the phase; and
- 7.9.3 Proof of compliance for the requirements associated with long term operations must be available on request.



LP PIENAAR (Pr. Eng)

MANAGER: INFRASTRUCTURE DEVELOPMENT

I:\DEVELOPMENT APPLICATIONS\15 town planning\15-4-1\2022\comments\Erf 31371, Paarl - Subdivision and amendment of conditions of approval.docx

LP/Is

Memo

To: Senior Manager: Land Development Management
For attention: H Strijdom/C van der Bank/E Cyster

From: Manager: Planning and Customer Services

Enquiries: L Laing

Reference number: 31371

Date: 3 May 2023

Subject: APPLICATION FOR A SUBDIVISION, ERVEN 31371, PAARL

Time Limit on Conditions: These conditions will be limited to a period of one (1) year from the date as on the covering memo from this department. After this period a re-application must be submitted for approval by this department.

1. INFORMATION REQUIRED/OUTSTANDING

1.1. None.

2. THE FOLLOWING CONDITIONS WILL APPLY

- 2.1. Only one service cable connection per erf is allowed.
- 2.2. No trees or any type of structures may be erected under or near any new or existing electrical infrastructure.
- 2.3. All electrical equipment shall comply with Drakenstein Municipality standards and have twenty-four-hour access for maintenance purposes.
- 2.1. In the case where existing services crosses the adjacent proposed erven, it will have to be removed or relocated at the cost of the owner, as such that each erf must have its own cable connection from the Street boundary or communal road servitude. The previous mentioned may further require a services servitude where the existing service cable route is located within another owner's erf boundary, subject to the approval of the rightful owner of the respective erf.
- 2.2. A low-tension feeder cable must be installed from Monte Cristo Avenue along the communal road servitude to a preferred location for a council distribution box. The previous mentioned is prior to reroute the service cables of erven 31369, 31370, 11956, 41458 and the proposed subdivision erf 31371 to the council distribution box. The owner or developer shall be responsible for the excavation and installation of sleeves according to Drakenstein Municipal standards.

2.3. A service level agreement between the municipality and the owner or developer of the development has to be arranged at Electro-Technical department (Planning and Design division - Chief Engineering Technician).

3. GENERAL

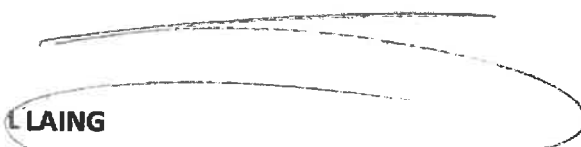
- 3.1. NRS069 Network recovery cost will apply for any additional load requirement for this development and will be calculated according to the following as indicated in approved tariffs: **R 3 750.79 x per KVA (V.A.T. included)**. The cost as mentioned above is valid until 30 June 2023 and will escalate thereafter for each upcoming financial year which is between 1 July and 30 June.
- 3.2. The developer will be responsible to carry all cost of the electrical installation including the linkage to the infrastructure as determined by the Manager: Planning and Customer Services.
- 3.3. All upgrade and service costs must be paid at the finance section in cash before any service connection may be rendered.

A private registered installation electrician shall be used to do all installations and alterations according to SANS 10142, Occupational Health and Safety Act (Act 85 of 1993) and Drakenstein Municipal by-laws prior to the proposed development.

A certificate of compliance and occupational certificate must be handed over to the Electro-Technical Services Department (Service section) on the day the service is rendered or as the case may be.

The Manager: Planning and Customer Services with reference to the services and conditions has no objection to this application.

Yours faithfully



L LAING
MANAGER: PLANNING AND CUSTOMER SERVICES
I:BEPLAN_3\Sub_Divisions_Rezoning\202223\31371

**Botanical Compliance Statement for
the proposed subdivision of Erf
31317,
Paarl, Drakenstein Municipality
Western Cape Province**



Dr David J. McDonald
Bergwind Botanical Surveys & Tours CC.
14A Thomson Road, Claremont, 7708
Tel: 021-671-4056
Mobile: 082-876-4051

Prepared for Mr Roelof van Wyk

June 2022

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1. Appointment and Declaration

As the appointed botanical specialist for the proposed subdivision of Erf 31317, Paarl, Drakenstein Municipality, Western Cape Province.

I hereby verify that:

- (a) I conducted a site visit on 22 April 2022
- (b) Erf 31317, Paarl, was investigated with respect to the vegetation and flora.

a. **Specialist:** Dr David J. McDonald, Bergwind Botanical Surveys & Tours CC, 14A Thomson Road, Claremont. Telephone: 021-671-4056; mobile – 082-876-4051.
SACNASP Reg. No. 400094/06 Ecological Science (Curriculum Vitae appended)

b. Declaration of independence:

I David Jury McDonald, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that I, in terms of the general requirement to be independent, other than fair remuneration for work performed in terms of this application:

- (i) 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.
- (ii) in terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all the requirements.
- (iii) 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
- (iv) am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (as amended).



Dr David J. McDonald Pr. Sci. Nat.
Botanical Specialist
Owner/ Director: Bergwind Botanical Surveys & Tours CC

2. Background

Bergwind Botanical Surveys and Tours CC (Dr D.J. McDonald) ('Bergwind') was appointed in April 2022 to conduct a botanical assessment for the proposed subdivision of Erf 31317, Paarl, Drakenstein Municipality, Western Cape Province. The reason for the appointment was since the erf is located close to the Paarl Mountain Nature Reserve and the possible high sensitivity of the vegetation on the site indicated the necessity for specialist botanical input to verify any potential impact on natural plant communities and / or plant species of conservation concern.

3. Locality

The 'target area' (Figure 1), Erf 31317, is in the suburb of Lemoenkloof, Paarl, Drakenstein Municipality (Figure 1). Access is via Ou Meul Street.



Figure 1. Topographic map indicating the location of Erf 31317, Paarl on the lower eastern slopes of Paarl Mountain.

4. Terrain

4.1 Topography and Aspect

Erf 31317 is located on the southeast-facing lower slopes of Paarl Mountain (Figure 2), outside the boundary of the Paarl Mountain Nature Reserve (PMNR). There is no intended expansion of the boundary of the PMNR in an easterly direction. The erf, although being on the slopes of the Paarl Mountain is relatively flat, with a slight fall off to the south where there is a mountain stream.

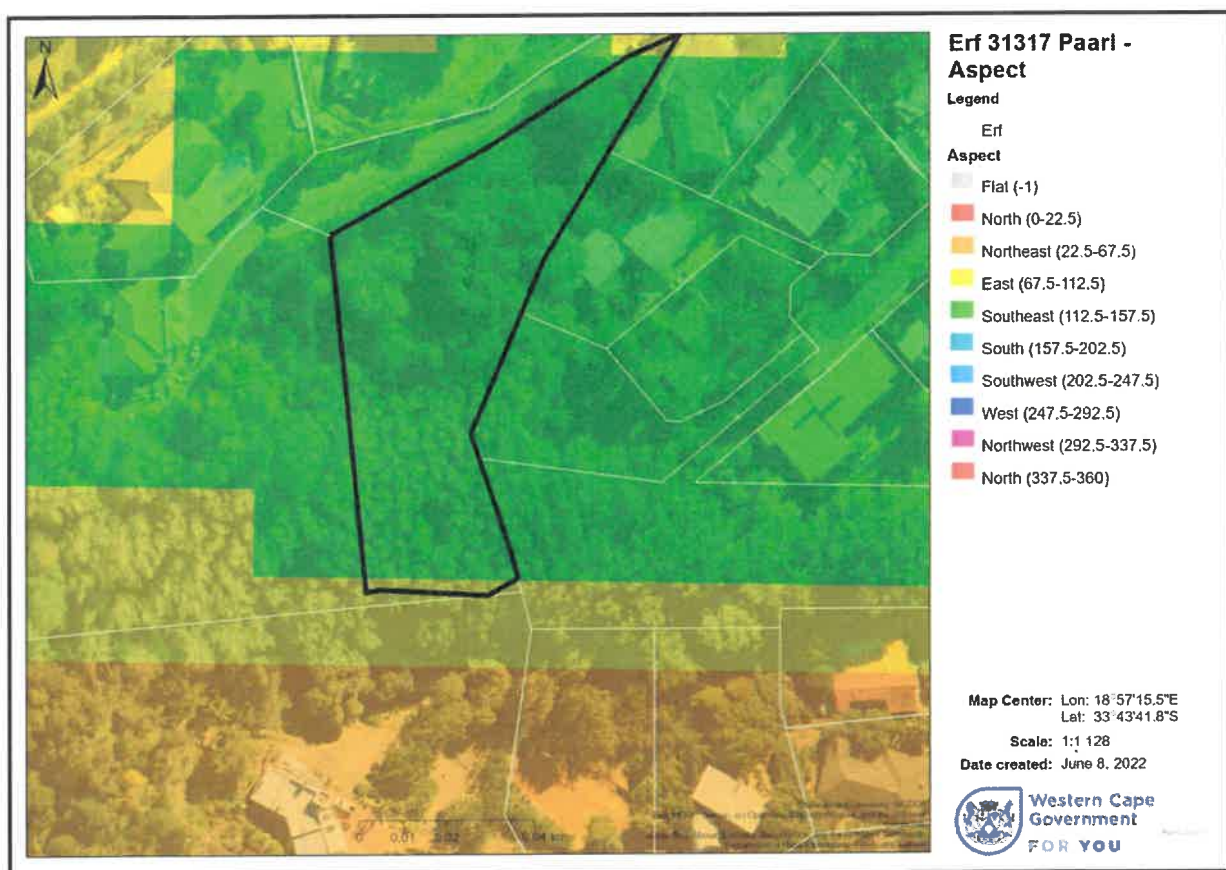


Figure 2. The aspect of Erf 31317, Paarl , facing south-east.

4.2 Geology and Soils

The erf is underlain by rock of the Cape Granite Suite and the soil on the erf is a product of weathering of the granite and colluvial movement of erosion material downwards on the slopes of Paarl Mountain. The soils of the Glenrosa Form have a strong texture contrast, are deep, have a yellow-brown colour and are freely draining.

5. Climate

The target area falls within the Winter Rainfall Region as shown by the climate diagram for Boland Granite Fynbos (Figure 3). The mean annual precipitation (MAP) is 984 mm with a peak from May to August. February is the hottest month with mean daily maximum of 29.6°C and July is the coldest month with mean daily minimum temperature of 6.3°C. Frost seldom occurs in winter but mists are frequent prior to the arrival of winter cold fronts that bring rain.

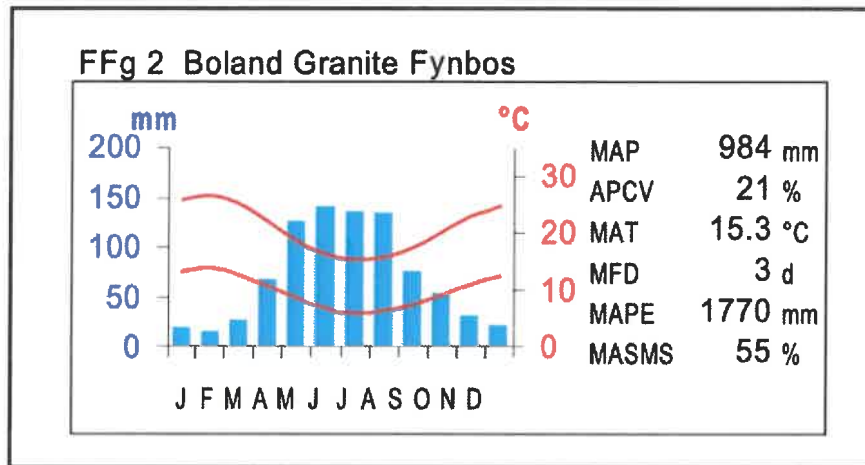


Figure 3. Climate diagrams for Boland Granite Fynbos (from Rebelo *et al.*, 2006 in Mucina & Rutherford, 2006) showing MAP – Mean Annual Precipitation; ACPV = Annual Precipitation Coefficient of Variance; MAT = Mean Annual Temperature; MFD = Mean Frost Days; MAPE = Mean Annual Potential Evaporation; MASMA = Mean Annual Soil Moisture Stress.

6. Methods

6.1 Site Visit

Erf 31317 was visited on 22 April 2022 in the company of the owners and photographs were taken of the site to inform the assessment.

6.2 Desk-top analysis and reporting

The photographs obtained in the field as well as available literature, Google Earth Pro™ and Cape Farm Mapper were used for description of the vegetation of the erf. The National Vegetation Map (Mucina *et al.* 2005; SANBI, 2012; 2018) (referred to as VEGMAP) was used to determine the vegetation type.

7. Limitations and Assumptions

The weather at the time of the survey was fine with no rain or wind. No plant species of conservation concern (SCC) were expected, since it was apparent from aerial satellite images that the property had numerous trees on it in the recent past.

8. Disturbance regime

The satellite images (Figures 4--7) show the 'land cover' from early 2005 to March 2022, shortly before the site visit was undertaken. There were many trees on the property in 2005 and that they increased in cover until early 2022 when many were removed to make way for development of the erf. There is little doubt that these trees were mostly alien species, probably Poplar (*Populus x canescens*), Syringa (*Melia azedarach*) and Australian Cheesewood (*Pittosporum undulatum*) with a few indigenous Wild Olive (*Olea europaea* subsp. *africana*) trees.



Figure 4. Aerial satellite image (Google Earth Pro™) of Erf 31317, Paarl (yellow boundary) in February 2005; note the tree cover.



Figure 5. Areal satellite image (Google Earth Pro™) of Erf 31317, Paarl (yellow boundary) in January 2014; note the increase in tree cover since 2005.



Figure 6. Areal satellite image of Erf 31317, Paarl (Google Earth Pro™) (yellow boundary) in February 2018; note the increase tree cover since 2014.



Figure 7. Areal satellite image of Erf 31317, Paarl (Google Earth Pro™) (yellow boundary) in July 2021; note the increase tree cover since 2018.



Figure 8. Areal satellite image of Erf 31317, Paarl (Google Earth Pro TM) (yellow boundary) in March 2022, shortly before the site visit. The erf was in the process of being cleared.

Prior to March 2022, clearing of the erf commenced and many of the trees on the northern part of the erf were felled, leaving only the desirable indigenous Wild Olive trees. The other vegetation in the understorey was also removed. In the process, a platform was created, as seen on 22 April 2022 (Figures 9--11) on which it is proposed the dwellings on the subdivided erf would be built.



Figure 9. View south-westwards along the main axis of Erf 31317, Paarl, showing the soil platform that had been created.



Figure 10. View southwards across part of the soil platform at erf 31317, Paarl on 22 April 2022



Figure 11. Stumps of large trees that had been removed prior to the site visit on 22 April 2022.

It was also apparent that the erf had been cultivated with vines at some time in the past. The remnants of vines that have grown from rootstock were noted on the site (Figure 12).



Figure 12. The weedy vegetation remaining on Erf 31317, Paarl on 22 April 2022. The red arrows indicate remnant grapevines; the blue arrows indicate *Solanum mauritianum* and the white arrow indicates *Melia azedarach*.

9. The Vegetation

9.1 The vegetation in context

Boland Granite Renosterveld is a leptophyllous shrubland that originally occurred on granite-derived soils of the South-western Cape. This renowned for its endemic fynbos species, both shrubs, geophytes and annuals that appear in the winter and spring after the rains, particularly in burnt areas (Rebelo *et al.* 2006 in Mucina & Rutherford, 2006). However, Boland Granite Fynbos is now confined to small areas on farms in in nature reserves, with much it having been transformed (cleared) for agriculture, particularly vineyards (Figure 12).

9.2 The vegetation at Erf 31317, Paarl

Originally the vegetation on Erf 31317, Paarl would have been Boland Granite Fynbos. However, the original natural vegetation was obviously removed a long time ago, after which the site was cultivated and then left to go fallow. It did not regenerate to Boland Granite Fynbos, with only the Wild Olive trees representing the former granite fynbos vegetation.

The vegetation remaining on the erf after the clearing of the large trees is a collection of weedy exotic species, notably Syringa (*Melia azedarach*), Bugweed (*Solanum mauritianum*) and West Indian Lantana (*Lantana camara*), as well as the wild grapevines as mentioned above. No fynbos vegetation is now present on the erf, and none was cleared during the tree-clearing and earthworks early in 2022.

10. Conservation status

10.1 Species of Conservation Concern (SCC)

No Red List species (i.e., species of conservation concern [SCC]) were found on the site.

10.2 Conservation Status of Vegetation Type and Critical Biodiversity Areas

Boland Granite Fynbos is listed as Vulnerable in the National List of Threatened Terrestrial Ecosystems (Government Gazette, 2011), however, none was found so development of the erf would not result in any further loss of this vegetation type.

An overlay on Google Earth™ imagery of the map Critical Biodiversity Areas from the Western Cape Biodiversity Plan [WCBSP] (Pence, 2017; Pool-Stanvliet *et. al.* 2017) is presented in Figure 13. Erf 31317, Paarl does not have any Critical Biodiversity Areas present, only an Ecological Support Area 2. Such areas serve an ecological support role, mainly along watercourses, but at Erf 31317, Paarl, the vegetation mapped as an ESA 2 actually consisted of exotic trees and weedy shrubs.

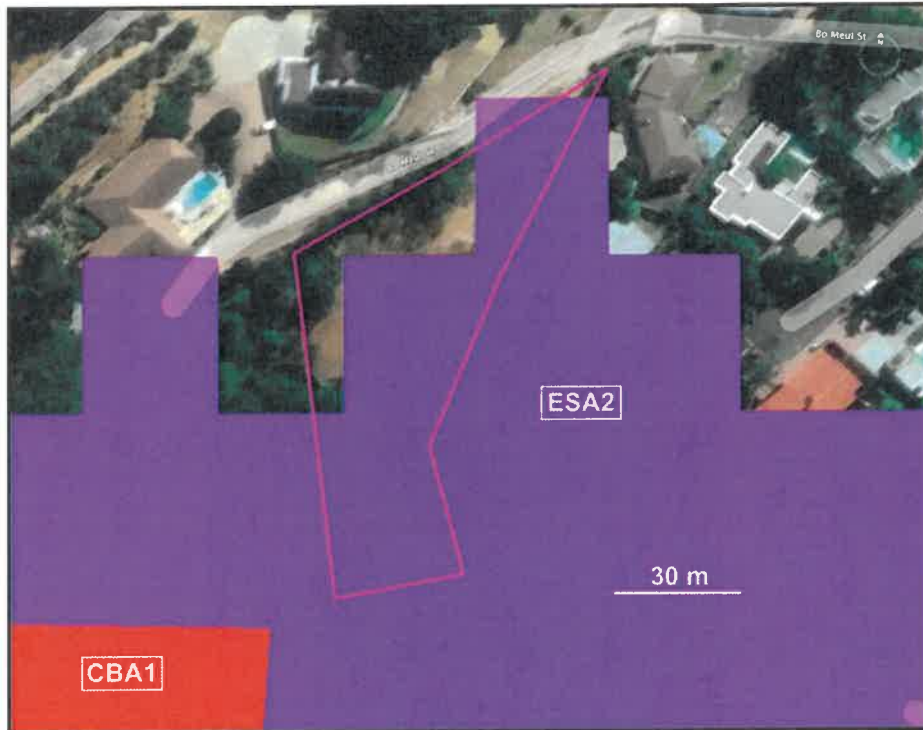


Figure 13. The WCBSP map for Drakenstein Municipality overlaid on a Google Earth Pro™ image. Erf 31317, Paarl is indicated by the pink boundary. The erf is partly mapped as ESA2 (purple shading).

11. Site sensitivity

11.1 Site sensitivity as determined in the field

It was concluded from the site visit that the vegetation on Erf 31317, Paarl had very low sensitivity before it some of it was cleared. The remaining weedy vegetation also has very low sensitivity. No species of conservation concern were recorded and there are no species assemblages that indicate anything other than **Very Low** sensitivity.

11.2 Site sensitivity as determined using the National Web-based Environmental Screening Tool.

The National Web-based Environmental Screening Tool was applied to Erf 31317, Paarl, the target area. According to this tool, the target area has **Very High Sensitivity** for the Relative Terrestrial Biodiversity Theme (Figure 14) and **Medium** sensitivity for the Relative Plant Species Theme (Figure 15).

In the case of the sensitivity rating given for the Relative Plant Species Theme, the findings of the field survey **do not** agree with the **Medium** sensitivity classification. The observations at the site indicate nothing more than **Very Low Sensitivity** of the plant species. The long list of plant species given in Figure 15 pertains to undisturbed Boland Granite Fynbos (as a whole) and is not applicable at the scale of one that is highly disturbed.

With respect to the **Very High** sensitivity given for the Relative Terrestrial Biodiversity Theme, I completely disagree with this classification. There is no indication in the field that the receiving environment has such a high biodiversity sensitivity.

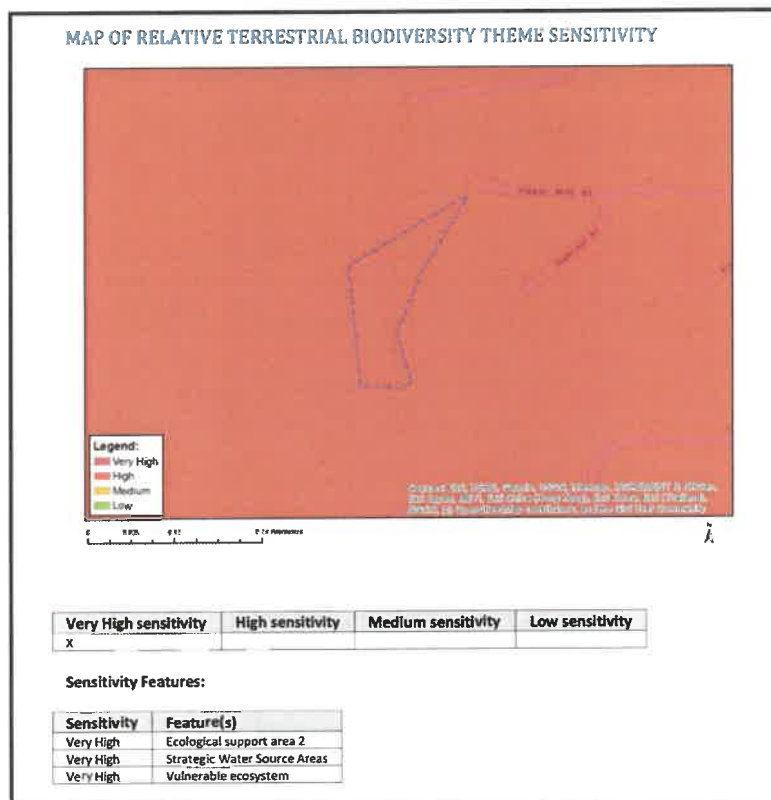


Figure 14. The output of the National Web-based Screening Tool for Erf 31317, Paarl (blue dotted boundary), showing terrestrial biodiversity sensitivity.

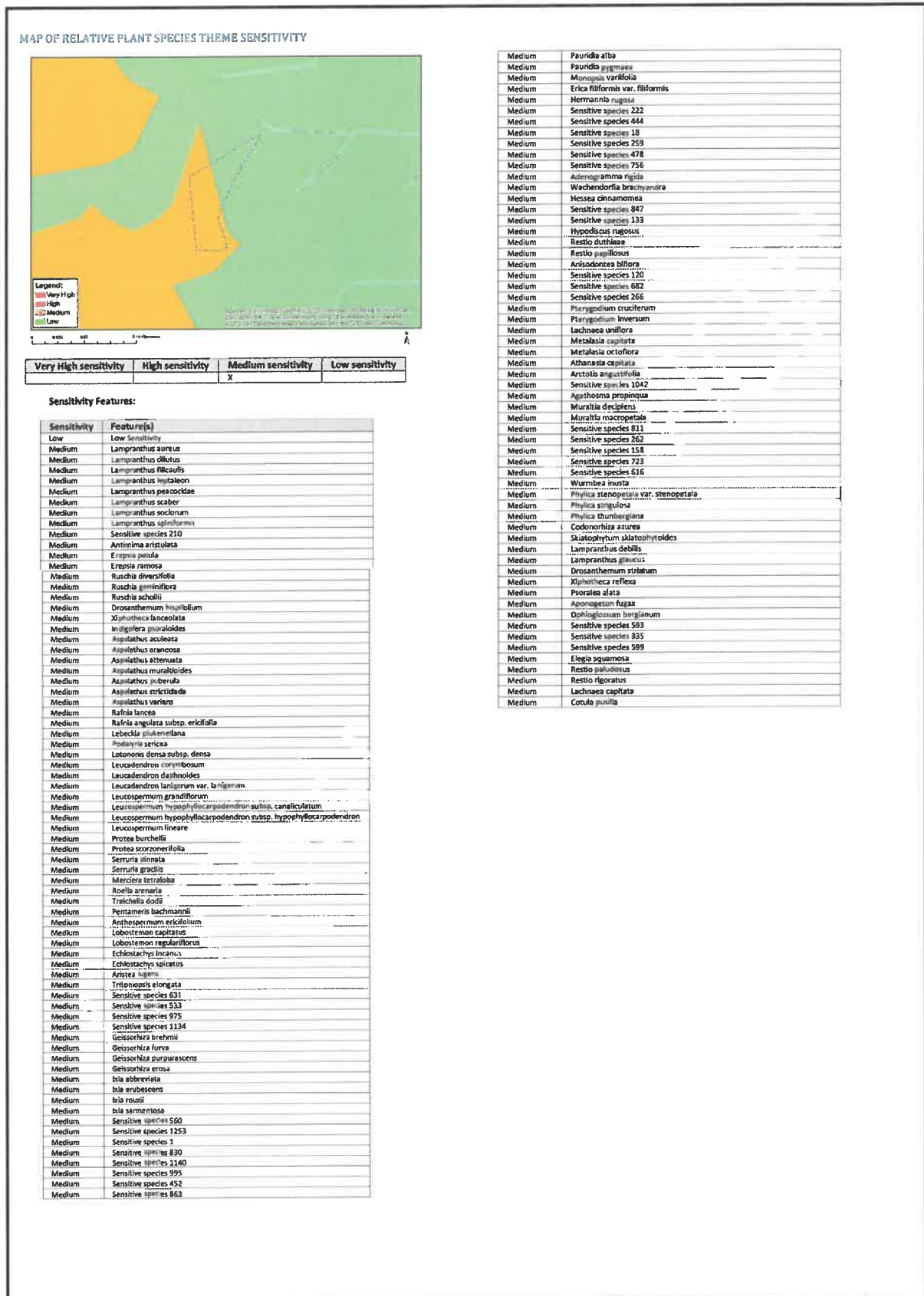


Figure 15. The output of the National Web-based Screening Tool for Erf 31317, Paarl (blue dotted boundary), showing relative plant species theme sensitivity.

12. Comment on potential impacts

Since the vegetation remaining on Erf 31317, Paarl consists of exotic weeds and trees, with a few indigenous trees, the direct impact of the proposed subdivision and future dwellings would be **Very Low Negative**. No mitigation would be necessary. Indirect impacts would not occur and there would be no cumulative impacts on the status of Boland Granite Fynbos.

13. General Assessment and Recommendations

- According to the National List of Threatened Ecosystems (Government Gazette, 2011) the originally occurring vegetation, Boland Granite Fynbos, on Erf 31317, Paarl, is Vulnerable. However, none of this vegetation type was found (remains) on the property.
- Erf 31317, Paarl, has **Very Low Botanical Sensitivity** and **Very Low Terrestrial Biodiversity** sensitivity.
- No rare or threatened plant species were found during the site visit. The level of probability of such species occurring is extremely low.

14. Conclusions

Based on the findings of the botanical survey, there are no constraints on the proposed subdivision and future construction of dwellings on the subject property.

15. References

Government Gazette No. 34809. 2011. Threatened Terrestrial Ecosystems in South Africa.

Mucina, L., Rutherford, M.C., & Powrie, L.W. (Eds.). 2005. Vegetation map of South Africa, Lesotho, and Swaziland 1:1 000 000 scale sheet maps. South African National Biodiversity Institute, Pretoria. ISBN 1-919976-22-1.

Mucina, L. & Rutherford, M.C. 2006. (eds.) The Vegetation of South Africa. Lesotho & Swaziland. *Strelitzia* 19. South African National Biodiversity Institute, Pretoria.

Pence, G.Q.K. 2017. The Western Cape Biodiversity Spatial Plan: Technical Report. Unpublished report. Western Cape Nature Conservation Board (CapeNature), Cape Town.

Pool-Stanvliet, R., Duffell-Canham, A., Pence, G., Smart, R. 2017. Western Cape Biodiversity Spatial Plan Handbook. Stellenbosch: CapeNature.

Rebelo, A.G., Boucher, C., Helme, N., Mucina, L. & Rutherford, M.C. 2006. Fynbos Biome. In: Mucina, L. & Rutherford, M.C. (eds.) *The Vegetation of South Africa, Lesotho & Swaziland. Strelitzia 19*. South African National Biodiversity Institute, Pretoria.

South African National Biodiversity Institute (SANBI) 2018, Vegetation Map of South Africa, Lesotho and Swaziland [vector geospatial dataset] 2018 Beta version. Available from the Biodiversity GIS website <http://bgis.sanbi.org>.

Report submitted: 14 June 2022

Appendix 1: Curriculum Vitae

Dr David Jury McDonald Pr. Sci. Nat.

Name of Company: Bergwind Botanical Surveys & Tours CC. (Independent consultant)

Work and Home Address: 14 A Thomson Road, Claremont, 7708

Tel: (021) 671-4056 **Mobile:** 082-876-4051 **Fax:** 086-517-3806

E-mail: dave@bergwind.co.za

Website: www.bergwind.co.za

Profession: Botanist / Vegetation Ecologist / Consultant / Tour Guide

Date of Birth: 7 August 1956

Employment history:

- Nineteen years with National Botanical Institute (now SA National Biodiversity Institute) as researcher in vegetation ecology.
- Five years as Deputy Director / Director Botanical & Communication Programmes of the Botanical Society of South Africa
- Sixteen years as private independent Botanical Specialist consultant (Bergwind Botanical Surveys & Tours CC)

Nationality: South African (ID No. 560807 5018 080)

Languages: English (home language) – speak, read and write
Afrikaans – speak, read and write

Membership in Professional Societies:

- South Africa Association of Botanists
- International Association for Impact Assessment (SA)
- South African Council for Natural Scientific Professions (**Ecological Science, Registration No. 400094/06**)
- Field Guides Association of Southern Africa

Key Qualifications:

- Qualified with a M. Sc. (1983) in Botany and a PhD in Botany (Vegetation Ecology) (1995) at the University of Cape Town.
- Research in Cape fynbos ecosystems and more specifically mountain ecosystems.
- From 1995 to 2000 managed the Vegetation Map of South Africa Project (National Botanical Institute).
- Conducted botanical survey work for AfriDev Consultants for the Mohale and Katse Dam projects in Lesotho from 1995 to 2002. A large component of this work was the analysis of data collected by teams of botanists.
- **Director: Botanical & Communication Programmes** of the Botanical Society of South Africa (2000—2005), responsible for communications and publications; involved with

conservation advocacy particularly with respect to impacts of development on centres of plant endemism.

- Further tasks involved the day-to-day management of a large non-profit environmental organisation.
- **Independent botanical consultant** (2005 – to present) over 600 projects have been completed related to environmental impact assessments in the Western, Southern and Northern Cape, Karoo and Lesotho. A list of reports (or selected reports for scrutiny) is available on request.

Higher Education

Degrees obtained

and major subjects passed:

B.Sc. (1977), University of Natal, Pietermaritzburg
Botany III
Entomology II (Third year course)

B.Sc. Hons. (1978) University of Natal, Pietermaritzburg
Botany (Ecology /Physiology)

M.Sc. - (Botany), University of Cape Town, 1983.
Thesis title: 'The vegetation of Swartboschkloof, Jonkershoek, Cape Province'.

PhD (Botany), University of Cape Town, 1995.
Thesis title: 'Phytogeography endemism and diversity of the fynbos of the southern Langeberg'.

Certificate of Tourism: Guiding (Culture: Local)
Level: 4 Code: TGC7 (Registered Tour Guide: WC 2969).

Employment Record:

January 2006 – present: Independent specialist botanical consultant and tour guide in own company: **Bergwind Botanical Surveys & Tours CC**

August 2000 - 2005 : Deputy Director, later Director Botanical & Communication Programmes, Botanical Society of South Africa

January 1981 – July 2000 : Research Scientist (Vegetation Ecology) at National Botanical Institute

January 1979—Dec 1980 : National Military Service

Further information is available on my company website: www.bergwind.co.za