

## APPENDIX C: FLOOD PROTECTION

Refer Drawing C5960 / 05 / 01 Rev G included overleaf.



## APPENDIX D: WATER LINK INFRASTRUCTURE

Refer Drawing C5960 / 06 Rev B included overleaf.

## **5 APPENDIX E : INTERIM POTABLE WATER RETICULATION**

Refer Drawing 5960/07 Rev A included overleaf



- NOTES :**
1. NO DIMENSIONS TO BE SCALING. ANY DISCREPANCIES TO BE BRING TO THE ATTENTION OF THE ENGINEER.
  2. TOPOGRAPHICAL SURVEY BY BURGER & VOLKMAN OF FEBRUARY 2021.
  3. SURVEY EXTENDED BY FRIEDRICH VOLKMAN OF MARCH 2021.
  4. FINAL ARRANGEMENT OF BUILDINGS TO BE CONFIRMED BY ARCHITECT.
  5. FINAL ARRANGEMENT OF EXTERNAL LANDSCAPING TO BE CONFIRMED BY LANDSCAPE ARCHITECT.
  6. EXISTING BULK SERVICES & CONNECTIONS TO BE EXPOSED PRIOR TO WORKS COMMENCING.



REV	DESCRIPTION	DATE
A	ISSUED FOR INFORMATION	08 OCT 2021

**MH&A** M. HURWORTH & ASSOCIATES  
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 Empowerment through engineering

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CLIENT : BERTHA FOUNDATION

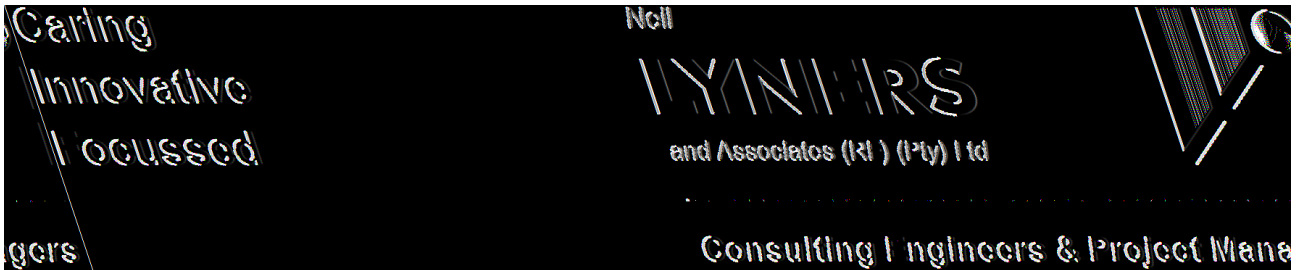
PROJECT : BERTHA RETREAT  
 PTN 11 OF FARM 1674

DRAWING TITLE : TEMPORARY MAIN WATER

THIS DRAWING IS TO BE USED FOR INFORMATION PURPOSE ONLY

DRAWN	DATE	SCALE
GLYNIS	JANUARY 2021	A1 AT 1 : 500
JOB No C5960	DRG No / CAD REVISION C5960 / 07	A

**LAYOUT PLAN**  
 SCALE 1:500



Our reference : C20087/COR/RS/rs/03

Your reference :

12 August 2020

Boschendal (Pty) Ltd  
PO Box 25  
**GROOT DRAKENSTEIN**  
7680

**ATTENTION: Mr William George**

Sir,

**PROPOSED DEVELOPMENT OF THE RETREAT ON THE FARM BOSCHENDAL, FRANSCHHOEK:  
AVAILABILITY OF ENGINEERING SERVICES (Rev 2)**

Your request for an engineering report on the availability of engineering services for the proposed development of The Retreat on the farm Boschendal, Paarl Division, refers:

**1. BACKGROUND**

The Retreat is situated on the farm Boschendal between Franschhoek and Stellenbosch. There are eight (8) existing structures on the site, and the intention is to refurbish/upgrade the dilapidated structures as a retreat for the Bertha Foundation comprising overnight guest accommodation, a conference facility and dining facilities. The proposed layout and accommodation schedule are shown in Annexure A

The following development is earmarked:

- Reception area;
- Communal area (library and ablution facility);
- Accommodation units;
- Conference facilities;
- Dining facilities;
- Operation facilities.

**2. ROAD INFRASTRUCTURE**

ITS Engineers had been appointed as the traffic engineers for the proposed development and will prepare a traffic impact study to determine the effect of the development on the proposed road network.

**3. WATER RETICULATION**

**3.1 Water Demand**

The water demand for the proposed development is shown in the table below using the guidelines for each facility.

	<b>Unit Demand</b>	<b>Number of Units</b>	<b>Total AADD (L/day)</b>
School	60 L / student	40	2 400
Guest House	0.6 kL / double room	17	10 200
Conference Facilities	20 L / seat	16	320
Security Booth	0.3 kL / unit	1	300
Private Open Space	12 kL / ha	0.015	180
<b>TOTAL</b>			<b>13 400</b>

The average daily flow is 0.16L/s. With a peak factor of 2.4, the network should be designed for a flow of 0.38 L/s.

This development is classified as a medium risk in terms of fire, and provision must be made for a flow of 15L/s at the fire hydrant at a minimum head of 15m

The abovementioned water demand does not include irrigation water. Irrigation water supply for this development will be from the irrigation network on the farm.

There are no water networks in the vicinity of the development, and the following options for water supply are under investigation:

## **3.2 Municipal Supply Options**

### **3.2.1 Connection to rising main to Pniel reservoir**

There is an existing municipal water booster pump station near Thembaletu on the Boschendal farm that pumps water from the Wemmershoek water main to the municipal reservoir in Pniel. This water main is located between the proposed development and the existing gravel road ("Ou Wapad") An application will be made at Stellenbosch Municipality for a metered water connection from this pump main to a higher lying reservoir on the farm. The estimated position of this reservoir is further south of the development towards the mountain to ensure that sufficient pressure will be available for a gravity main to The Retreat. Storage capacity of at least twice the Average Annual Daily Demand (AADM) is required at the reservoir. It is envisaged that 3 x 10 000 L storage tanks will be required to comply with storage and fire requirements.

### **3.2.2 Supply from Lanquedoc**

The Retreat is located approximately 1.25km from Lanquedoc and the possibility exists to get a connection from the internal reticulation network in the town. An application for this option will also be made with Stellenbosch Municipality. A bulk water meter will be installed at the municipal connection.

Available flows and pressure, as well as costs will determine which of the municipal supply options, if approved, will be implemented.

### **3.2.3 Borehole Supply**

The possibility exists to drill a borehole in the vicinity of The Retreat that can be used for the water supply of the development. This supply option forms part of the larger water supply strategy for the Boschendal farm and is under investigation.

The supply from a borehole will depend on the following:

- Drilling a borehole with sufficient supply/yield for the development
- Testing quality of ground water to establish whether any treatment is required to achieve potable water standard
- Registration of borehole for domestic use

### 3.2.4 Supply from dam on farm

There is a large dam to the south of The Retreat. Discussions with the management of the farm revealed that this dam has a reliable inflow to ensure constant supply to the development but will need treatment to potable standard. Application must be made to use the dam water for domestic use and the necessary permits obtained.

If this option is selected, water will be pumped to a higher lying reservoir (as described in paragraph 3.2.1), treated, and feed The Retreat by means of a gravity main

### 3.3 **Recommended Supply**

The recommended water supply will depend on whether a supply from either of the municipal networks can be made available and the capital costs of the supply. The advantage of the municipal supply is that water of a potable quality will be available and will not require any treatment or operation and maintenance from the farm management.

### 3.4 **Internal Water Network**

The internal network will connect to the external supply after the bulk water meter. A ring main will be provided around the buildings with a connection to each building. It is envisaged that one fire hydrant will be required for the development and will be provided in the domestic water network.

The internal reticulation network consisting of a 110 mm dia reticulation main around the buildings with valves and a fire hydrant is shown on drawing no 20087-C-Figure A rev D in Annexure B

## 4. **SEWER RETICULATION**

### 4.1 **Sewer Flows**

Sewer flows are normally calculated at 75% of water demands to make provision for irrigation and other uses. As irrigation water for the development will most probably be supplied from other sources, it is recommended that sewer flows be calculated as 90% of water demands.

Based on the water demand calculations in paragraph 3.1, the Peak Day Dry Weather Flow (PDDWF) is calculated at 12,1k /day.

### 4.2 **Sewer Drainage and Treatment Options**

There is no formal sewer reticulation network or treatment facility in the proximity of The Retreat. The pumping of effluent to the Lanquedoc municipal network is not considered to be an economical option.

It is recommended that an on site treatment package plant be installed at the development. HWT is extensively involved in the investigation of the treatment of effluent on the greater Boschendal farm and will also provide inputs for The Retreat. A low energy biological treatment process will most probably be recommended, comprising of a solids interceptor, flow balancing and a multi-media biological (SOG) filter. Typical details of the SOG trickling filter are shown in Annexure C.

It is recommended that effluent gravitate to the solids separator outside the ecological buffer zone of the river on the northern side of the development as shown on drawing no 20087-C-Figure A rev D in Annexure B. A two track environmentally sensitive road will be provided to the solids separator for maintenance purposes. The effluent will be pumped from the solids separator to the SOG trickling filter located south of the access road to the development (see drawing no 20087-C-Figure A rev D in Annexure B).

The standard to which the effluent is treated and where it is irrigated must be in accordance with national standards and legislation. Irrigation close to boreholes, streams or wetlands will not be allowed. The treated effluent can then be used in a sustainable manner, i.e. to supplement irrigation water.



## **5. STORMWATER MANAGEMENT**

The site drains in a northerly direction towards the Dwars River. The increase of stormwater run-off is minimal as the footprint of the overnight guest accommodation being upgraded is the same. Downpipes from the buildings will discharge on surface and dissipate into the ground

Flood lines of the Dwars River were obtained from a drawing by Kwezi V3 Engineers dated September 2005, The 1:50 and 1:100 flood lines are indicated on the services layout drawing no 20087-C-Figure A rev D in Annexure C

A marginal increase in run-off is expected from the new road and parking area surface. It is recommended that stormwater be accommodated in a sustainable manner and to the landscape architect's landscape plan.

## **6. TELECOMMUNICATION**

Ducts will be placed at road crossings for a future telecommunication network. The selected service provider will install further ducts and manholes as per their design.

## **7. REFUSE REMOVAL**

Refuse will be collected at the development by the management of the farm and disposed of with the refuse generated on the farm. Collection of refuse is done by a private company and dumped at a registered site.

## **8. ELECTRICITY SERVICES**

### **8.1 External Electrical Services**

#### **8.1.1 Supply Area**

The area of the proposed development falls within the Eskom area of supply.

Eskom supplies the surrounding customers and it is therefore logical, technically feasible and economically advantageous to supply the development from the nearest Eskom electricity network with adequate capacity.

#### **8.1.2 Maximum Demand**

The intention is that a rooftop PV system will be implemented to reduce the energy consumption (kWh) of the development.

Based on the accommodation schedule provided by the Architect and limited capacity allowance for street/area lighting and other amenities the maximum demand of the development is estimated at 100Kva.

It is therefore proposed that application for a 100Kva (150 Amp three phase) low voltage connection is submitted to Eskom.

#### **8.1.3 Supply Point**

The development will be supplied from the existing Eskom overhead line running next to the gravel farm road as shown on Figure E1 below.

**Figure E1: Route of Existing Eskom Overhead Line**

Eskom confirmed that sufficient capacity is available on the 11Kv overhead line to supply the development (Eskom capacity letter to follow).

A new low voltage bulk supply point will be taken off the 11Kv overhead line to supply the development.

**8.1.4 Scope of Work**

To supply the development with adequate and reliable bulk electricity supply, the following preliminary scope of work is proposed:

- i) Installation of a new 11Kv T-off overhead line across the road from the existing Eskom 11Kv overhead line.
- ii) Installation of a new 11Kv/420Volt 100Kva pole mounted transformer at the development.
- iii) Installation of a new 150Amp (100Kva) three phase low voltage Eskom bulk supply point at the development.

Shared Network Costs (SNC's) will be payable to Eskom based on the size of the electricity supply applied for.

**8.2 Internal Electrical Services****8.2.1 Low Voltage Internal Network**

The reticulation network within the development boundaries will be a private network and will be designed to comply with the standards and requirements of SANS 10142.

An underground internal low voltage network will be installed from the Eskom bulk supply point to each of the refurbish/upgrade cottages, conference facility and dining facilities.

The operation and maintenance of the private internal reticulation services will be the responsibility of the Retreat Management. The Retreat will receive a monthly bulk account for the electricity consumption of the retreat.

### 8.2.2 Street and Area Lighting Network

Street and area lighting of internal private roads, private open spaces and parking bays and the lighting of features, walls, entrances, water features etc will be provided to the Architect's requirements.

Energy efficient lighting technology will be used as far as possible to reduce the energy requirements of the development.

## 9. **DEVELOPMENT CONTRIBUTIONS**

Development Contributions (DC's) and Eskom Shared Network Costs (SNC) will be payable for the development. The levies/contributions will be based on the applicable rates of the year in which clearance of the erven are requested. If no bulk services are obtained from municipal sources, DC's should not be payable.

## 10. **CONCLUSION**

Although the proposed development is situated outside the normal municipal supply area. Preliminary discussions with Stellenbosch Municipality indicated that they will consider a municipal water connection from their bulk supply to Pniel, but an official application with water demands must be lodged.

Wastewater treatment will be on site with the construction of a package plant that will treat effluent to the applicable standard that can be used for irrigation.

Please do not hesitate to contact us should you require any additional information.

---

**Rudolph Schoonwinkel Pr Eng**  
**For Lyners**

## **ANNEXURE A**

**DRAWING NO**  
**C1-100 REV A**

**DESCRIPTION**  
**Site Development Plan**



Item	E' D' (x, F, -) / (x)	A/SO 1+(1) F- / (x)	A/SO 02(1) F- / (x)	T-01 A/SO	A/SO C40+, \$	E' S/01 C-55/S1 A/SO
dAliv/Re/ption	#5884 A°	#5884 A°		#5884 A°		570 A°
*lelela	#5888 A°	#5888 A°		#5888 A°		570 A°
11oA Aodation )ottage #	#517 A°	#517 A°		#517 A°		039 A°
11oA Aodation )ottage 0	#5817 A°	#5817 A°	58 A°	#5817 A°	58 A°	058 A°
11oA Aodation )ottage 3	#5717 A°	#5717 A°		#5717 A°		058 A°
)ore/enle	#510 A°	#510 A°	#51 A°	#849 A°	#51 A°	
&inning C'ouage	#518 A°	#518 A°	#519 A°	#97 A°	519 A°	#833 A°
/R/then and (tbl)	#5888 A°	#5888 A°	58 A°	#5817 A°	58 A°	788 A°
total	#7319 A°	#7319 A°	#7888 A°	#3307 A°	#788 A°	3657 A°

**KS%**

[Red dashed line]	Existing Building Footprint
[Light grey]	Paving
[Dark grey]	Main Road (Ou Wapad)
[Medium grey]	Footpath
[Light green]	Parking/ New 1 less
[Dark green]	New 1ands/ape
[Light green]	Existing 1ands/ape

# SITE DEVELOPMENT PLAN  
SCALE = 1:500

**GENERAL NOTES**

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NATIONAL BUILDING REGULATIONS AND ALL APPLICABLE CODES.

2. THE CLIENT SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE RELEVANT AUTHORITIES.

3. THE DESIGNER SHALL NOT BE RESPONSIBLE FOR ANY CONSTRUCTION DEFECTS OR DAMAGES ARISING FROM THE USE OF THIS PLAN.

4. THE CLIENT SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AND PUBLIC INFRASTRUCTURE AT ALL TIMES.

5. ALL UTILITIES SHALL BE IDENTIFIED AND PROTECTED PRIOR TO CONSTRUCTION.

6. THE DESIGNER HAS CONDUCTED VISUAL IMPACT ASSESSMENT AND THE DEVELOPMENT IS FOUND TO BE VISUALLY INTEGRATED WITH THE SURROUNDING ENVIRONMENT.

7. THE CLIENT SHALL ENSURE THAT THE DEVELOPMENT COMPLIES WITH ALL APPLICABLE ENVIRONMENTAL REQUIREMENTS.

8. THE DESIGNER HAS CONDUCTED SOIL AND WATER TESTING AND THE RESULTS HAVE BEEN USED TO INFORM THE DESIGN.

9. THE CLIENT SHALL MAINTAIN RECORDS OF ALL CONSTRUCTION ACTIVITIES AND MATERIALS USED.

10. THE DESIGNER SHALL NOT BE RESPONSIBLE FOR ANY CHANGES TO THE DESIGN MADE AFTER THE ISSUANCE OF THIS PLAN.

11. THE CLIENT SHALL ENSURE THAT ALL CONSTRUCTION WORK IS COMPLETED WITHIN THE SPECIFIED TIMEFRAME.

12. THE DESIGNER SHALL NOT BE RESPONSIBLE FOR ANY DELAYS OR COST OVERRUNS ARISING FROM CHANGES TO THE DESIGN.

13. THE CLIENT SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AND PUBLIC INFRASTRUCTURE AT ALL TIMES.

14. THE DESIGNER SHALL NOT BE RESPONSIBLE FOR ANY CONSTRUCTION DEFECTS OR DAMAGES ARISING FROM THE USE OF THIS PLAN.

15. THE CLIENT SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AND PUBLIC INFRASTRUCTURE AT ALL TIMES.

NO.	DATE	DESCRIPTION
1	10/01/2023	ISSUE FOR PERMITTING
2	10/15/2023	ISSUE FOR PERMITTING



BERNARD REIS  
BOYER FLEMING RICHARDS  
PARNELL

11/11/2023  
BOYER FLEMING RICHARDS  
PARNELL

11/11/2023  
BOYER FLEMING RICHARDS  
PARNELL

## **ANNEXURE B**

<b>DRAWING NO</b>	<b>DESCRIPTION</b>
<b>20087-C-Figure A Rev D</b>	<b>Proposed Civil Engineering Services Layout</b>



LEGEND	
<b>EXISTING SERVICES</b>	
— X —	FENCE
[---]	BUILDING FOOTPRINT
[---]	1: 50 YEAR FLOODLINE
[---]	1: 100 YEAR FLOODLINE
[---]	RIVER EDGE
[---]	RIVER CENTRELINE
[---]	SEASONAL STREAMS
[---]	15m RIVER BUFFER
[---]	DWARS RIVER FLOODPLAIN
[---]	23m BUFFER ZONE
[---]	WETLANDS
[---]	12m BUFFER ZONE
<b>PROPOSED SERVICES</b>	
[---]	BUILDING FOOTPRINT
[---]	EXTERNAL STRUCTURES
[---]	160mmØ PVC-U CLASS 34
[---]	FLOW DIRECTION
[•]	MANHOLE
[•]	SOLIDS SEPARATOR AND P
[•]	SOG TRICKLING FILTER
[---]	RISING MAIN FROM SOLIDS
[---]	PLANTED SWALE AREA FOR TREATMENT AND RETENTION
[---]	90mmØ PVC-U CLASS 12 W
[---]	VALVE
[•]	FIRE HYDRANT
[•]	WATER METER
[←]	CONNECTION TO EXISTING

The reference made to Engineer will also refer

**SCALE BAR**  
0 15 30  
Meters 1: 500

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All dimensions must be verified on site before the works commence. Refer any discrepancies to the Engineer.

REV	DESCRIPTION	DATE	REV BY	CHKD
D	ARTIFICIAL ZONES REMOVED	20-08-07	NL	BS
C	BUFFER ZONES INDICATED	20-08-07	NL	BS
B	SERVICES ADDED AND AMENDED	20-08-07	NL	BS
A	FOR INFORMATION	20-08-07	NL	BS

REVISIONS

DESIGNED	DP	20-08-07
DRAWN	NL	20-08-07
CHECKED	DRS	20-08-07

CONSULTING ENGINEERS

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APPROVED	ENGINEERS:
DATE:	2020-08-05
APPROVED	CLIENT:
DATE:	

CLIENT

**BOSCHENDAL (PTY) LTD BOSCHENDAL**

PNIEL ROAD  
GROOT DRAKENSTEIN  
7680

PROJECT

**THE NEW RETREAT**

TITLE

**PROPOSED CIVIL ENGINEERING SERVICES LAYOUT**

SCALE	1: 500
SHEET	1 OF 1
CONTRACT	20087
PROJECT NO.	20087
DRAWING No.	20087-C-01
REV	1
COORDINATE	SWCSM: /

**ANNEXURE C**  
**SOG Trickling Filter**





# SOG Tricking Filter™



*Saving the world,  
one trickle at a time.*

# IDEAL FOR EFFLUENT AND SEWAGE TREATMENT

Sewage treatment has never been easier. And not just sewage treatment. **The SOG Trickling Filter™** can also purify biodegradable industrial effluents.

**The SOG Trickling Filter™** is a South African innovation, developed to suit the needs and budgets of any serious environmentalist. Not so long ago, the DWS (Department Water & Sanitation) made a plea to Sanitation Engineers; *"Please make sewage treatment easy"*.

**The SOG Trickling Filter™** is a waste water treatment process that makes sewage treatment easier, especially if you are off-the-grid. Unlike most conventional sewage treatment plants, **The SOG Trickling Filter™** makes use of a multitude of organisms - **THE FIVE KINGDOMS**. By spreading the type of organism activity, a larger range of variable flow and load is possible.

The range in size of treatment organism also facilitates the conversion of sewage to heat and gas as opposed to mere biomass. In the **The SOG Trickling Filter™** there are pockets of aerobic, anoxic and anaerobic zones. Organisms live in the various zones performing selective functions including dissolved organic material degradation (COD reduction), conversion of ammonia to nitrate (nitrification) and removal of nitrate

In conjunction with the presence of various habitats, the **The SOG Trickling Filter™** makes use of media that has absorptive properties. Portions of dissolved organic material are trapped in the media. In times of low or no flow, the trapped material becomes available as a food source (substrate) for organisms that thrive on sewage. If no flow conditions persist, the organisms will consume all available and trapped substrate.

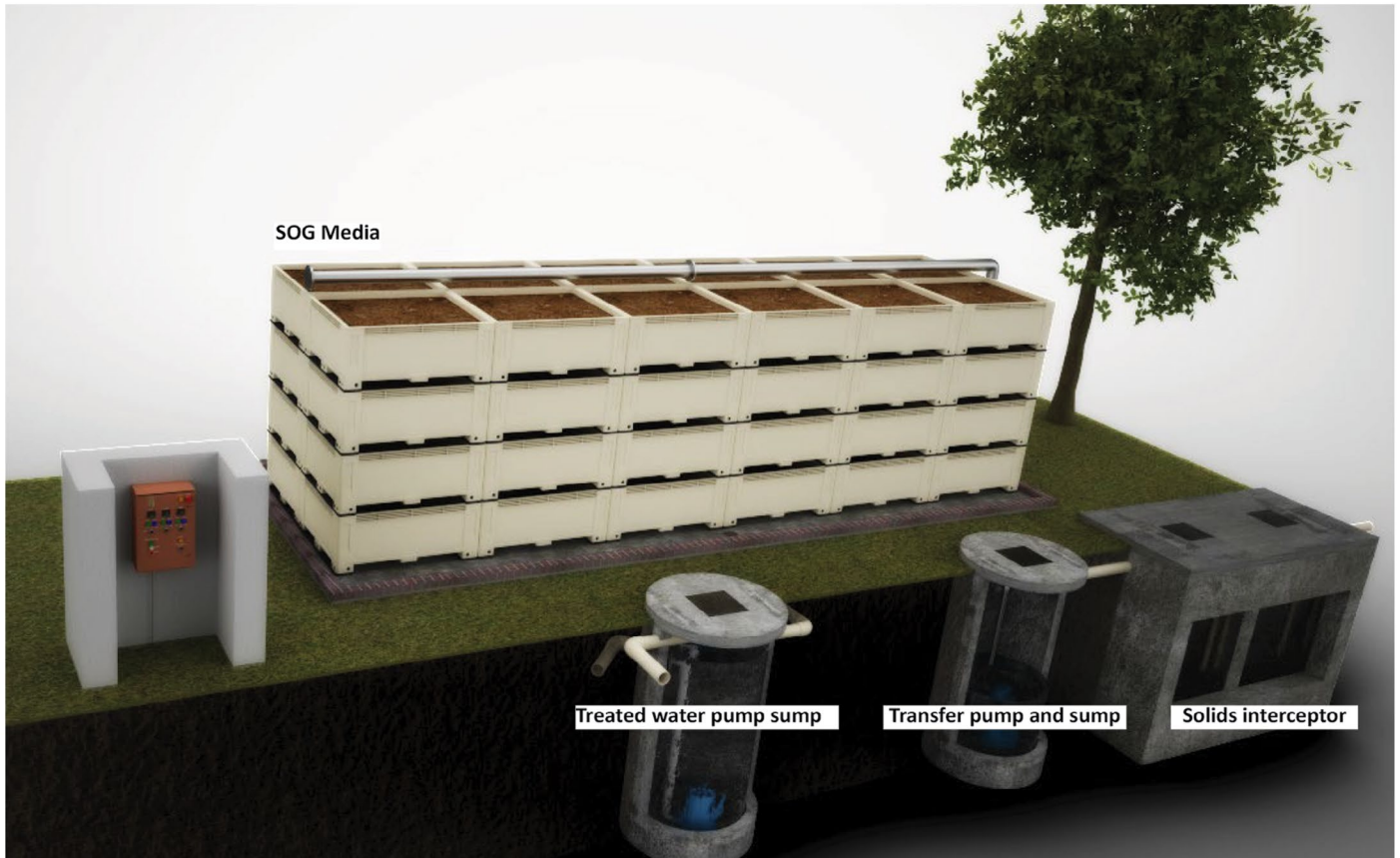
When flow recommences, the media will absorb the substrate and allow the concomitant regrowth of organisms. Sewage treatment using **The SOG Trickling Filter™** is a passive process. Raw sewage is collected in a septic tank / solids separation arrangement. The settled sewage is collected in a pump sump and simply discharged to the top of **The SOG Trickling Filter™**. Sewage works its way through the filter media, which is housed in layers, and is collected at the base of the filter. From this point, the treated water can be directed to a re-use option such as irrigation pump or gravity discharge arrangement.



## 360 SOG FILTRATION SYSTEM BACK TO POTABLE WATER



# TYPICAL INSTALLATION OF THE SOG TRICKLING FILTER™ INSTALLED POST SOLIDS INTERCEPTOR



## BENEFITS

### Proven Technology

SOG trickling filtration and treatment of sewage has been used for many years in various parts of the world.

### Low Energy

If the site allows, gravity can transfer the water or only one pump is required to transfer water **The SOG Trickling Filter™**.

### Low Visual Impact

**The SOG Trickling Filter™** is tastefully covered with shrubbery. Fencing is an option as is a ventilated

### Low Maintenance

The treatment plant design centres on ease of use and simplicity.

### Upgrade Considerations

A key feature of the design is the provision for upgrade in the event of future growth. **The SOG Trickling Filter™** geometry is chosen to allow for simple increase in size.

### Minimal Solids Handling

Inert solid material in the wastewater is collected in a solids interceptor. This is a robust and hygienic solids material collection device. Actual design is site dependent.

### HWT

The company was founded in 1994 and has successfully designed, built, commissioned and services in excess of 100 treatment plants.



# BIOLOGICAL WASTE WATER TREATMENT

## WASTE WATER DESCRIPTION

Domestic sewage tends to have a variable flow and organic load. The organic content is similar to sugar in coffee, which cannot be filtered out with conventional filtration. Like sugar it is biodegradable and can be easily removed in a carefully designed biological environment.

*The South African National Water Act of 1999 (Currently under review) currently makes distinction between discharge to a water resource and disposal via kikuyu irrigation. For both disposal routes emphasis is placed on sustainable reuse of the water. Irrigation is therefore a primary objective in the treatment of waste water.*

## TREATMENT PROCESS

Waste water is collected at a sump positioned downstream of a solids separation tank. Solids free effluent is pumped to a distribution manifold attached to the top of the SOG trickling filter. The distribution manifold is designed to ensure even hydraulic loading of the **The SOG Trickling Filter™** which comprises multiple stacked SOG layers.

Organic treatment of the solids free waste water takes place in a mixed media biological filter. The size of the SOG filter is determined by the hydraulic and organic loading rate. Waste water percolates through the media and takes approximately 48 hours to flow from top to base.

This type of waste water treatment has been widely used by numerous blue chip clients and local authorities.



Samples. After inert solids interceptor on left and after **The SOG Trickling Filter™** on the right.



**The SOG Trickling Filter™** - low energy and highly effective. This unit treats up to 1000 litres per day.



**Uva Mira Mountain Vineyards, Stellenbosch**  
Domestic sewage and wine cellar effluent treatment  
Treated water used for irrigation



**Clover Production Facility, Gauteng**  
Treated water used for irrigation

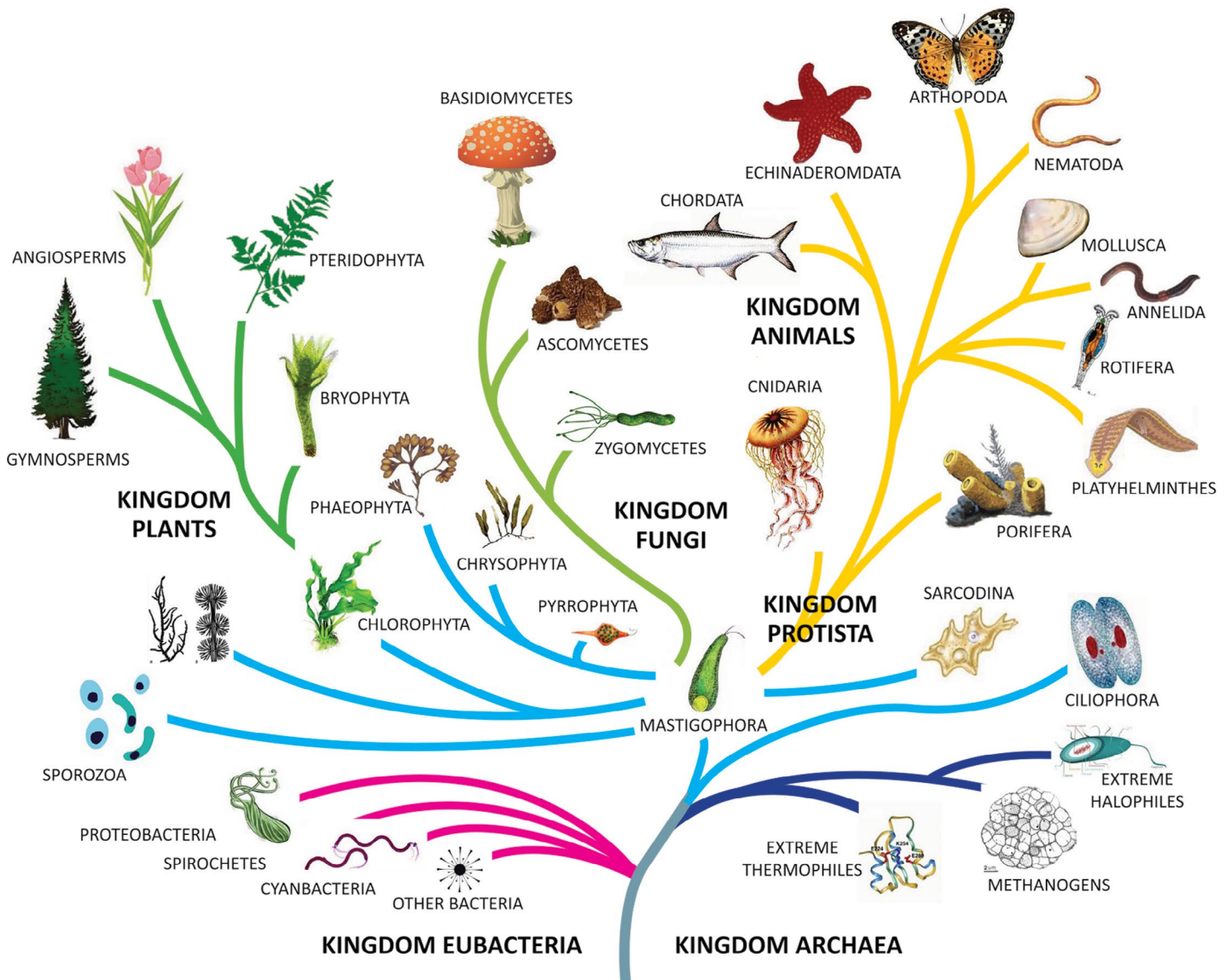


**Old Mutual, The Estuaries, Century City, Cape Town**  
Office block waste water recycled via The SOG Trickling Filter™.  
Additional RO reverse osmosis ensures potable water quality.



**Coffee Shop & Brewery, Contermanskloof**  
Domestic sewage and wine cellar effluent treatment  
Treated water used for irrigation

# THE 5 KINGDOMS APPROACH



## THE WHOLE IS GREATER THAN THE SUM OF IT'S PARTS ARISTOTLE

In **The SOG Trickling Filter™** there is diversity, spanning 5 of the known kingdoms of life.

**The SOG Trickling Filter™** mimics a mountain seep or bog. It is exposed on the upper layer, shady and moist in the lower layers. The media is never completely water logged and for this reason a range of organisms are attracted to **The SOG Trickling Filter™**.

Biodegradable waste water is trickled over the top layers of **The SOG Trickling Filter™** and percolates through several layers of media. Waste water is the energy that drives life in **The SOG Trickling Filter™**.

A host of organisms interact with one another, their synergy, symbiosis and biodiversity maintaining an energetic and biomass equilibrium.

# TECHNICAL SPECIFICATIONS

<b>Waste water types</b>	Sewage Industrial	Domestic, small communities, catering Food processing Beverage production
<b>Treatment capacity</b>	Minimum flow rate Maximum	1 000 litres per day Fully scalable, no limit
<b>Treated effluent quality</b>	Legislative compliance	DWS general standard DWS irrigation standard
<b>Dimensions</b>	Solids interceptor and sumps <b>The SOG Trickling Filter™</b>	Below ground, variable in volume Height: 2100mm, above ground Width and Length varies
<b>Materials of construction</b>	Solids interceptor and sumps SOG filter Foundation	HDPE, concrete, composite materials UV resistant, polypropylene Reinforced concrete 25 MPa Brick on edge perimeter wall with epoxy sealant
<b>Pumps</b>	Untreated feed pump Treated effluent	Submersible vortex Submersible vortex
<b>Control panel</b>	HWT standard	Control circuit protection Thermal overload protection Hour and ammeter on motors





# SOG Trickling Filter™



- 📍 PO Box 28, Lynedoch, Stellenbosch, 7603,
- ☎ +27 (0)21 881 3014
- ✉ info@hwt.co.za
- 🌐 www.hwt.co.za



**HWT**  
WATER TREATMENT



## **APPENDIX P**

Public Participation Plan and DEA&DP Approval

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# PROPOSED NEW RETREAT, PORTION 11 OF FARM 1674 AT BOSCHENDAL: PUBLIC PARTICIPATION PLAN

11/16/2021

Revised v 2: Proposed Public Participation Plan as Part of the Basic Assessment Process for the Proposed Development of a “New Retreat” and Associated MMP on a portion of Portion 11 of Farm 1674, Paarl, and Associated Infrastructure (NOI Ref: 16/3/3/6/7/1/B4/12/1086/20)

Prepared by:  
**Chand Environmental Consultants**  
P.O Box 238, Plumstead, 7801  
Tel: 021 762 3060  
Fax: 021 762 3240  
[www.chand.co.za](http://www.chand.co.za)



Prepared for:  
**Boschendal (Pty) Ltd**  
Helshoogte Road, Pniel  
[www.boschendal.com](http://www.boschendal.com)

**BOSCHENDAL**  
FOUNDED IN 1685



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## Acronyms and Abbreviations

<b>BAR</b>	Basic Assessment Report
<b>BID</b>	Background Information Document
<b>DBAR</b>	Draft Basic Assessment Report
<b>DEA&amp;DP</b>	Department of Environmental Affairs and Development Planning
<b>DHSWS</b>	Department of Human Settlements, Water and Sanitation
<b>EA</b>	Environmental Authorisation
<b>EAP</b>	Environmental Assessment Practitioner
<b>EIA</b>	Environmental Impact Assessment
<b>FBAR</b>	Final Basic Assessment Report
<b>HWC</b>	Heritage Western Cape
<b>I&amp;AP</b>	Interested and Affected Party
<b>NOI</b>	Notification of Intent
<b>NEMA</b>	National Environmental Management Act (No. 107 of 1998), as amended
<b>NHRA</b>	National Heritage Resources Act (No. 25 of 1999)
<b>NWA</b>	National Water Act (No. 36 of 1998), as amended
<b>PPP</b>	Public Participation Process

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# Proposed New Retreat, Portion 11 of Farm 1674 at Boschendal: Public Participation Plan

**REVISED V 2: PROPOSED PUBLIC PARTICIPATION PLAN AS PART OF THE BASIC ASSESSMENT PROCESS FOR THE PROPOSED DEVELOPMENT OF A “NEW RETREAT” AND ASSOCIATED MMP ON A PORTION OF PORTION 11 OF FARM 1674, PAARL, AND ASSOCIATED INFRASTRUCTURE (NOI REF: 16/3/3/6/7/1/B4/12/1086/20)**

## 1. INTRODUCTION

The Applicant proposes to convert existing derelict worker cottages into tourist accommodation and tourist facilities for the establishment of a Retreat for the Bertha Foundation on a portion of Portion 11 of Farm 1674 on the Boschendal Estate. The Department of Environmental Affairs and Development Planning (DEA&DP) has confirmed that Environmental Authorisation through a Basic Assessment process is required for the proposed development. The following Listed Activities of the Environmental Impact Assessment (EIA) Regulations, 2014 (as amended) may be relevant (noting that final applicability will be confirmed in the Application Form):

Activities 19, 12 and 48 of Listing Notice 1; and  
Activities 6, 12, and 17 of Listing Notice 3.

The DEA&DP acknowledged receipt of the Notification of Intent (NOI) submitted by Chand in their letter dated 3 June 2020 and referenced 16/3/3/6/7/1/B4/12/1086/20.

The DEA&DP’s latest State of Disaster-related Circular dated 30 September 2020 (No. 0024/2020) still requires that a Public Participation Plan be submitted to the DEA&DP prior to the commencement of any public participation in order to ensure that reasonable notice is given to potential interested and affected parties (I&APs).

The Department of Environment, Forestry and Fisheries (DEFF) published revised EIA Directions for conducting EIAs and other permitting processes under the National State of Disaster and association lockdown conditions (i.e. the “revised EIA Directions”) on 5 June 2020, but the period in which they were effective has passed and no directions are currently in place. Therefore, no extensions under these directions are contemplated in this report and no extensions would be applied to post-application timeframes.

Relevant to this Basic Assessment process, there is also a Standard Operating Procedure (SOP), dated December 2015, between DEA&DP and Heritage Western Cape (HWC) which also advises on the process to be followed, with a lot of guidance on the PPP, for applications that trigger Section 38 (1) of the National Heritage Resources Act (No. 25 of 1999) (NHRA). It should be noted that the Department of Water and Sanitation (DWS) has confirmed that the proposed development can be authorised under a General Authorisation, therefore the One Environmental System would not apply as a Water Use License is not necessary. Note that a General Authorisation does not require a public participation process.

This PPP Plan is, therefore submitted to the DEA&DP in terms of the abovementioned Circular and SOP for feedback and advice.

On a general note, the municipality within which the proposed development is located has a Gini coefficient of 0.62<sup>1</sup>, which indicates a large degree of income inequality and, therefore, access to resources and information. The local nearby communities of Pniel, Kylemore, and Lanquedoc are relatively small communities with an estimated 497 households in Pniel<sup>2</sup>, 944 households in Kylemore<sup>3</sup> and 946 households in Lanquedoc<sup>4</sup> (as per the 2011 census, so numbers would likely be somewhat higher today). Most residents in the nearby local communities do not have access to the internet, but the large majority (averaging about 89%) has access to cellphones. Given that this data is from the 2011 census, there may be an improvement in the access to internet since then, but it is still important to make use of community structures to accommodate those potential I&APs who may not. All State Departments, registered heritage conservation bodies, and community leadership do, however, have access to the internet and are also able to receive emails and documents for download.

By way of an update, the application has now been submitted and the post-application Draft Basic Assessment Report (BAR) will be published for public review following the receipt of an application reference number from the DEA&DP. In terms of the programming of the Basic Assessment process, a draft Gantt chart is included in **Appendix B**.

This public participation plan has furthermore been updated to include the additional scope of the proposed interim (temporary) potable water supply pipeline and the final (long-term solution) pipeline to Lanquedoc.

## 2. ASSUMPTIONS AND LIMITATIONS

This report has been compiled with the following assumptions and limitations:

This PPP Plan has been devised at the beginning of the Basic Assessment process and, although certain issues and I&APs can be predicted, others will emerge through the process which may necessitate departure from this PPP Plan. Those departures would, however, be discussed with the DEA&DP prior to implementation and would relate to additional activities beyond those required in terms of Regulation 41 of the EIA Regulations, 2014 (as amended).

Additional meetings/engagement with certain I&APs or groups thereof may be required, however this would come to light through the process. Should any meetings be necessary, these would be done via video conference for as long as lockdown persists, or a site meeting with any authorities where any social distancing requirements applicable at the time would be observed (at the moment, this would entail wearing of face masks, sanitising hands on site with a sanitizer that is 80% alcohol or more and maintaining a physical distance of 1.5m between people, with all attempts to be made to meet outdoors rather than indoors).

Public comment periods for documents associated with this process have been devised to adhere to the minimum statutory timeframes as contemplated in the EIA Regulations 2014 (as amended) as well as to provide an additional days (where applicable) in order to accommodate the various lockdown scenarios in terms of the COVID-19 State of Disaster. However, it is understood that the revised EIA Directions of 5 June 2020 are no longer in effect and no other directions are currently in place, therefore all post-application timeframes would comply with the minimum statutory commenting periods as contemplated in the EIA Regulations, 2014 (as amended).

It is assumed that all relevant State Departments, surrounding farm representatives, and Heritage Conservation bodies can receive emails and documents for download.

It is assumed that community leaders would pass on any relevant information to their constituents, particularly the I&APs/ constituents who may not have access to the internet for download of documents.

It is assumed postage can occur under all Alert Levels apart from Level 4.

All notification letters, adverts, and site notices published and distributed as part of this PPP would refer to a "combined PPP in terms of NEMA, the NHRA and the NWA", as well as making specific reference to the availability of the Heritage Impact Assessment Report, in order to make it clear that there are environmental, heritage and water use aspects incorporated into a single process.

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<sup>1</sup> [https://www.westerncape.gov.za/assets/departments/treasury/Documents/Socio-economicprofiles/2017/wc024\\_stellenbosch\\_2017\\_socio-economic\\_profile\\_sep-lq\\_-\\_22\\_december\\_2017.pdf](https://www.westerncape.gov.za/assets/departments/treasury/Documents/Socio-economicprofiles/2017/wc024_stellenbosch_2017_socio-economic_profile_sep-lq_-_22_december_2017.pdf)

<sup>2</sup> [http://www.statssa.gov.za/?page\\_id=4286&id=100](http://www.statssa.gov.za/?page_id=4286&id=100)

<sup>3</sup> [http://www.statssa.gov.za/?page\\_id=4286&id=110](http://www.statssa.gov.za/?page_id=4286&id=110)

<sup>4</sup> [http://www.statssa.gov.za/?page\\_id=4286&id=102](http://www.statssa.gov.za/?page_id=4286&id=102)

Where posting of notifications/documentation is mentioned, this refers only to regular mail and **not registered mail**. Chand does not believe it is prudent to force I&APs to queue in a post office to collect a letter during a global pandemic.

### 3. PROPOSED PRE-APPLICATION PUBLIC PARTICIPATION ACTIVITIES

#### 3.1 Identification of I&APs

A preliminary database of I&APs has been compiled and included in **Appendix A**. Chand has conducted research in the area and has also used the I&AP database for the recent Agterdam development (Environmental Authorisation was granted in March 2020, so it is a recent database) as a base because the Agterdam development is similar to the proposed development in that it is also a redevelopment of existing structures to tourist accommodation on Boschendal Estate. As a result, the following parties as required in Regulation 41 (2) (b) of the EIA Regulations, 2014 (as amended) are included in the preliminary I&AP database:

Owners and Occupiers of the site where the activity is to be undertaken (noting that the Applicant is the landowner and that there are no occupiers of the site);

Owners and Occupiers of the land adjacent to the site where the activity is to be undertaken. This includes Boschendal (Pty) Ltd, Applemint Properties 99 (Pty) Ltd (there is a physical and postal address), and Transnet SOC Ltd (there is a postal and email address);

The Municipal Ward Councillor and Sub-Council Manager (the latest contact information has been obtained from the Agterdam Basic Assessment I&AP database, the Ward Councillor would also serve as the point of contact with the local community, particularly those who may not have access to internet/documents for download);

Organs of the State having jurisdiction in respect of any aspect of the activity (these include Stellenbosch Municipality, Department of Human Settlements, Water and Sanitation-DHSWS, HWC, Department of Agriculture, and CapeNature);

Registered Heritage Conservation Bodies (i.e. Stellenbosch Interest Group, Stellenbosch Heritage Foundation, Stellenbosch Municipality, Pniel Heritage and Cultural Trust, the former York Farm residents who were interviewed by Bertha, Heritage Western Cape, and the Pniel Museum- note the relevant bodies have been included on the advice of the Heritage Practitioner who is conducting the Heritage Impact Assessment);

Local Ratepayers' Associations (i.e. the Stellenbosch Ratepayers Association);

Boschendal Worker Forum (in order to ensure farm workers on Boschendal are aware of projects on the farm); and

Local groups which could facilitate community engagement (i.e. Groot Drakenstein Community Policing Forum, Dwars River Valley Community Development Trust, the Community Advice Office, the Pniel Museum) (in order to reach I&APs who may not have access to email, but to also adhere to social distancing requirements to slow the spread of the COVID-19 virus).

During the public review period for the post-application draft BAR, the following local community organisations were identified, and their representatives added to the I&AP database:

Pniel Community Development Forum; and

Kylemore Community Development Forum.

Furthermore, the Berg River Irrigation Board has been added to the I&AP database for comment on the MMP (which was requested by the DEA&DP in their comment on the pre-application BAR). The I&AP database would be updated as comments are received from I&APs during the Basic Assessment process.

#### 3.2 Public Review of Pre-Application Draft Basic Assessment Report



Notification of the Pre-Application Draft BAR, with a cover letter which also clearly states that the Heritage Impact Assessment (HIA) Report is included in the DBAR, would be distributed to the preliminary I&AP database via email to those I&APs who have email addresses (this includes state departments, as well as the DEA&DP) and via post (note, regular post, **not** registered post) to those who do not have email addresses. The report itself would be made available for download from Chand's website. No hardcopies would be delivered to I&APs, as the documentation would be available for download. Exceptions would be if state Departments (or I&APs with reasonable requests) specifically request hardcopies.

There would also be a detailed executive summary, which would contain sufficient information for I&APs to achieve a fair idea of the project for commenting purposes, without needing to review the entire BAR. This would be devised in order to allow for I&APs with minimal data to access the information. The executive summary will also be available on Chand's website for download.

Hard copies of the DBAR would be left at the Pniel Museum, as well as the Pniel and Stellenbosch Public Libraries. The Pniel Museum and Pniel Public Library are both located within the affected community and, to improve commenting opportunity for those I&APs who do not have access to the internet, hardcopies of the executive summary, comment sheets and a comment box will be left at these locations. I&APs would be able to take an executive summary and would be able to deposit their written comment in the comment box. The comment boxes would be collected from the Pniel Museum and the Pniel Public Library at the end of the comment period and comments and registrations would be captured as part of the Basic Assessment process.

Notices of the project and availability of information for review would also be distributed/ put up at key public places in the community such as clinics and shops. These notices would encourage I&APs to visit the Pniel Museum and Pniel Public Library to collect an executive summary and deposit a comment in the comment box.

The suggested comment period for the BAR would be **35 days** (i.e. the typical legislated comment period with an additional 5 days to accommodate lockdown).

Registrations resulting from the DBAR distribution would be added to the I&AP Database and comments from the DBAR distribution would be included in an updated Comments and Response Report and updated DBAR.

This step is particularly important in terms of the SOP between HWC and DEA&DP, such that it would allow for registered heritage conservation bodies to provide their comments during the pre-application PPP and therefore, HWC would be able to review those comments and the responses thereto during the post-application DBAR public review period.

## 4 PROPOSED POST-APPLICATION PUBLIC PARTICIPATION ACTIVITIES

The BAR would be updated following the pre-application PPP and all specialist and project team inputs. Then the application form would be completed and submitted (and application fee paid) to the DEA&DP. It is anticipated that the formal application for a WUL (if required) would be made to the DHSWS at the same time.

### 4.1 Public Review of Post-Application Draft Basic Assessment Report

Notification of the Post-Application DBAR would be distributed to the preliminary I&AP database via email to the I&APs which have email addresses (this includes state departments, as well as the DEA&DP) and via standard post (i.e. **not** registered post) to those who do not. No hardcopies would be delivered to I&APs, as the documentation would be available for download, unless specifically requested by a state department (or reasonable request made by I&APs). Hard copies of the post-application DBAR would, however, be left at the Pniel Museum, as well as the Pniel and Stellenbosch Public Libraries, or a combination thereof, whatever is most accessible and permitted under lockdown.

A comprehensive executive summary would also be provided for download (to provide those I&APs with limited data access to still achieve a fair idea of the project for comment) and would be left at the Pniel Museum and Pniel Public Library for I&APs to take home. In addition, comment sheets and a comment box will be left at these locations. I&APs would be able to take an executive summary and would be able to deposit their written comment in the comment box. The comment boxes would be collected from the Pniel Museum and the Pniel Public Library at the end of the comment period and comments (as well as any new I&AP registrations) would be captured as part of the Basic Assessment process.

The report itself as well as the comprehensive executive summary would be made available for download from Chand's website (noting that the executive summary would have a separate link). Notification of the availability of the Post-Application DBAR would also be done through the following:

Distribution of a notification letter to the preliminary I&AP database (which includes parties required in terms of Regulation 41 (2) (b) of the EIA Regulations, 2014 (as amended)) via email to those who have email addresses and standard post to those who only have postal addresses;

Placement of one notice board on the site where the proposed activities are to be undertaken on the site boundary, as well as a second notice board at the main entrance to the farm, facing Helshoogte Road, with further site notices also being placed at the approximate mid-points and end-points of the proposed potable water pipeline routes (noting that contents and size would adhere to requirements of Regulations 41 (3) and (4) of the EIA Regulations, 2014 (as amended));

Written notification via a mail-out, email and knock-and-drop exercise to occupiers/owners adjacent to the boundary of the site (noting that the Applicant is the landowner and there are no occupiers of the site);

Compilation and placement of one advertisement (in English) in the Eikestad Nuus (which is a local newspaper) and the Cape Times (which is a regional newspaper) (noting that contents would adhere to requirements of Regulation 41 (3) of the EIA Regulations, 2014 (as amended)); and

Notices of the project and availability of information for review would also be distributed/ put up at key public places in the community such as clinics and shops. These notices would encourage I&APs to visit the Pniel Museum and Pniel Public Library to collect an executive summary and deposit a comment in the comment box

The above means of notification (as well as notification of the decision described in section 4.2) would provide for adherence to Regulation 41 of the EIA Regulations 2014 (as amended). The above documentation would also refer to a "combined PPP in terms of NEMA and the NHRA", as well as making specific reference to the availability of the Heritage Impact Assessment Report. Given the change in scope through addition of the proposed potable water lines to service the site, it is suggested that additional site notices be published at four strategic points along the routes.

The permanent pipeline route to Lanquedoc is within the road and road reserve and the Stellenbosch Municipality has required this as one of the conditions of approval in the town planning process. They are also then, by virtue of it being their requirement, aware of it as the "landowner" given that roadways and road reserves are within their mandate. There are no homes along the route and so it is believed that the additional site notices would be an adequate form of notification, along with the remaining initially planned notification such as newspaper adverts, notification letters and report distribution.

The suggested comment period for the BAR would be 30 days (i.e. the typical legislated comment period).

If possible, the post-application DBAR would be submitted to HWC before other I&APs in order to afford HWC more time to review. If this can be achieved, it would likely occur at the time the Application Form is submitted to the DEA&DP, but this cannot be guaranteed at this stage.

Registrations resulting from the Post-Application DBAR distribution would be added to the I&AP Database and comments from the Post-Application DBAR distribution would be included in an updated Comments and Response Report and Final Basic Assessment Report (FBAR) for submission to the DEA&DP.

Should the Post-Application DBAR require substantive amendments as per S19(1)(b) of the EIA Regulations, 2014 (as amended), the update DBAR would be distributed to the Registered I&APs for a further 30 days (as per EIA Regulations, 2014, as amended). It is not anticipated that this would be likely, given the extensive public review proposed for the BAR.

## 4.2 Notification of DEA&DP Decision

Once the DEA&DP has reviewed the FBAR and issued their decision, the decision, date, reasons for decision, means to access the decision, and an explanation regarding the way the decision may be appealed, as well as any further requirements stipulated therein would be distributed to the I&AP database via email for those who have email addresses and post for those who have only postal addresses. It would also be uploaded onto Chand's website so it would be accessible for download. The applicable appeal period would be explained in accordance with that included in the decision.

## 5 CONCLUSION

The proposed PPP is summarized in Table 1 and indicates which activities would meet minimum statutory requirement in terms of Regulation 41 of the EIA Regulations, 2014 (as amended) and those which are additional.

TABLE 1 SUMMARY OF PROPOSED PPP PLAN RELATIVE TO STATUTORY REQUIREMENTS

PPP: Task/Activity	Regulatory Requirements	Additional
<b>Compilation of Preliminary I&amp;AP Database</b>	X <sup>5</sup>	
<b>Public Review of Pre-Application DBAR (30 + 5 days)- report and executive summary on Chand's website and via email to the I&amp;APs which have email addresses and via post to those who do not. Leave hardcopies of the report at Pniel Museum, as well as the Pniel and Stellenbosch Public Libraries, or a combination thereof. Executive summaries, comment sheets and comment box for deposit of written comments to be left at Pniel Museum and Pniel Public Library.</b>		X <sup>6</sup>
<b>Public Review of Post-Application DBAR (30 days)- report on Chand's website and via email to the I&amp;APs which have email addresses and via post to those who do not, site notice at site boundary, newspaper advert (local), hardcopies only delivered to state departments if requested, Where possible and allowable under lockdown, leave hardcopies of the report at Pniel Museum, as well as the Pniel and Stellenbosch Public Libraries, or a combination thereof. Executive summaries, comment sheets and comment box for deposit of written comments to be left at Pniel Museum and Pniel Public Library.</b>	X	
<b>As part of the public review above, an additional regional newspaper advert would be placed, and an additional site notice would be put up at the farm entrance along Helshoogte Road, mid-points and endpoints of the two proposed potable water line routes</b>		X
<b>Notification of Decision to Registered I&amp;APs via email, and post to those who do not have email addresses, decision would be uploaded to Chand's website</b>	X	

<sup>5</sup>

<sup>6</sup>

## APPENDICES

### APPENDIX A: PRELIMINARY I&AP DATABASE

REFERENCE: 16/3/3/6/7/1/B4/12/1086/20  
DATE: 13 October 2020

The Board of Directors  
Boschendal (Pty) Ltd  
PO Box 35  
PNIEL  
7681

Attention: Mr Stephen Groenewald

Tel: (021) 870 4249  
Email: [Stephen@Boschendal.co.za](mailto:Stephen@Boschendal.co.za)

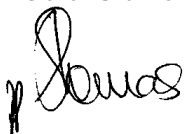
Dear Sir

IN TERMS OF CIRCULAR: DEA&DP NO

0024/2020 FOR THE PROPOSED  
BOSCHENDAL, FRANSCHHOEK

1. The electronic copy of the amended PPP Plan, as received by the Department on 6 October 2020, refers.
2. The Department hereby approves the PPP Plan dated 6 October 2020, submitted in terms of the 0024/2020). All of the measures highlighted in the PPP Plan must be implemented to meet the requirements of Regulations 41 of the NEMA EIA Regulations 2014 (as amended) as specified in the abovementioned circular.
3. The approved PPP Plan must be included with the submission of the formal application for Environmental Authorisation and should also form part of the draft report that will be distributed as part of the Public Participation Process.
4. Kindly quote the abovementioned reference number in any future correspondence concerning the proposed development.
5. This Department reserves the right to revise or withdraw its comments and request further information based on any information received.

Yours faithfully



HEAD OF COMPONENT  
ENVIRONMENTAL IMPACT MANAGEMENT SERVICES: REGION 1  
DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING

Cc: (1) M Penwarden (Chand Environmental Consultants cc) Email: [marielle@chand.co.za](mailto:marielle@chand.co.za)  
(2) S van der Merwe (Stellenbosch Municipality) Email: [Schalk.VanderMerwe@stellenbosch.gov.za](mailto:Schalk.VanderMerwe@stellenbosch.gov.za)

APPENDIX Q

Information Document for Maintenance Management Plan for a  
watercourse

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**Request for the relevant Competent Authority to define or adopt a Maintenance Management Plan for a watercourse in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), Environmental Impact Assessment Regulations, 2014 (as amended).**

File Reference Number:  
Date Received by Department:  
Date Received by Component:  
Form Duly Signed and Dated:

(For official use only)	
	Yes No

**PROJECT TITLE**

**PROPOSED DEVELOPMENT OF A NEW RETREAT AND ASSOCIATED MAINTENANCE MANAGEMENT PLAN ON A PORTION OF PORTION 11 OF FARM 1674, PAARL, AND ASSOCIATED INFRASTRUCTURE**

**A. SCOPE AND IMPORTANT INFORMATION**

- 1) This document is to be used to ensure that the request for adopting or defining a Maintenance Management Plan (MMP) in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), Environmental Impact Assessment (EIA) Regulations, 2014 (as amended) is undertaken to the sufficient standard and requirements as defined by the competent authority, the Department of Environmental Affairs and Development Planning of the Western Cape Government (henceforth the Department). It is advised that the determination of applicability regarding the scale of the proposed maintenance/management activity(ies) be undertaken through a pre-application consultation with the Department.
- 2) The geographical scope of the MMP is limited to watercourses as defined in the EIA Regulations, 2014(as amended). The document does not relate to coastal activities or activities to be undertaken in an estuary.
- 3) The use of this document for the development of a MMP for a watercourse **will only** be considered when the proposed maintenance activities constitute any one of the following listed activities identified in terms of the NEMA EIA Regulations, 2014 (as amended):

*EIA Regulations Listing Notice 1 of 2014 (as amended)*

- Activity 19, Listing Notice 1: The infilling or depositing of any material of more than 10 cubic meters into, or the dredging, excavation, removal or moving of soil, sand, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse; but excluding where such infilling, depositing, dredging, excavation, removal or moving-

- (a) will occur behind a development setback;
  - (b) is for maintenance purposes undertaken in accordance with a maintenance management plan;
  - (c) falls within the ambit of activity 21 in this Notice, in which case that activity applies;
  - (N.B. Points (d) and (e) does not apply as these activities fall within the coastal zone)
- Activity 27, Listing Notice 1: The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for-
    - i. The undertaking of a linear activity; or
    - ii. Maintenance purposes undertaken in accordance with a MMP.

*EIA Regulations Listing Notice 2 of 2014 (as amended)*

- Activity 15, Listing Notice 2: The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for-
  - I. The undertaking of a linear activity; or
  - II. Maintenance purposes undertaken in accordance with a MMP.
- Activity 24, Listing Notice 2: The extraction or removal of peat or peat soils, including the disturbance of vegetation or soils in anticipation of the extraction or removal of peat or peat soils, but excluding where such extraction or removal is for the rehabilitation of wetlands in accordance with a MMP.

*EIA Regulations Listing Notice 3 of 2014 (as amended)*

- Activity 12, Listing Notice 3: The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a MMP.

**i. Western Cape**

- i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;
  - ii. Within critical biodiversity areas identified in bioregional plans;
  - iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning; or
  - v. On land designated for protection or conservation purposes in an Environmental Management Framework adopted in the prescribed manner, or a Spatial Development Framework adopted by the MEC or Minister.
- (NB. Point iii does not apply as this activity falls within the coastal zone)

- 4) In deciding the request, the competent authority may define conditions related to auditing compliance with the MMP; monitoring requirements; reporting requirements, review; updating and amending the document and period for which the MMP is defined/adopted.
- 5) The purpose of the MMP is to maintain both man-made and ecological infrastructure in a manner that either improves the current state of, and/or reduces the negative impacts on a



watercourse to ensure that ecosystems services are preserved/improved and to prevent further deterioration of the watercourse.

- 6) Notwithstanding the MMP possibly being defined or adopted by the Competent Authority, any other applicable statutory requirement must still be complied with (e.g. any obligations under the National Water Act, 1998 (Act 36 of 1998) or the Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983)).
- 7) The proponent must note that a MMP for a watercourse **must** be undertaken through consultation with the Department of Water and Sanitation and/or the relevant Catchment Management Agency (responsible water authority). This is to ensure compliance in terms of a Permissible Water Use as set out in the National Water Act, 1998 (Act No. 36 of 1998). It is recommended that this process for authorisation in terms of the National Water Act be clarified prior to the drafting and submission of the MMP.
- 8) The development of this document has been done in such a way so as to meet the requirements of both this Department as the competent authority in terms of the NEMA EIA Regulations, 2014 (as amended), as well as the requirements of the delegated water authority, regarding general authorisation considerations for sections 21(c) and (i) of the National Water Act, 1998 (Act No. 36 of 1998), to ensure alignment between the two authorities when defining or adopting the MMP.
- 9) In situations where a Water Use Licence Application (WULA) is required by the water authority regarding the proposed activities within a MMP, this will not prevent the proponent from submitting a request for a MMP to be defined or adopted by the Department.
- 10) Unless protected by law, all information contained in, and attached to this document, shall become public information on receipt by the competent authority.
- 11) A duly dated and originally signed copy of this document together with one hard copy and one electronic copy of the MMP must be posted, to the Department at the postal address given below, or delivered to the Registry Office of the Department.
- 12) A copy of the final defined/adopted MMP and cover letter **must** be submitted to the responsible water authority.
- 13) **NOTE: Adopting or defining the MMP does not absolve the proponent from complying with any applicable legislation or the general “duty of care” set out in Section 28(1) of the NEMA that states, “Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment.” (Note: When interpreting this “duty of care” responsibility, cognisance must be taken of the national environmental management principles contained in Section 2 of the NEMA.**
- 14) **NOTE: This document can be used as a template to assist in the information required and is to be filled out in full. The Department reserves the right to request any additional information during the initial development and submission of the draft MMP.**

- 15) **NOTE: The Department reserves the right to not adopt the MMP and require that an application be submitted to obtain Environmental Authorisation for the respective activities. Furthermore, consideration for the review should also be aligned to the periodic reviews of the General Authorisation for sections 21 (c) and (i) of the National Water Act, 1998 (Act No. 36 of 1998) to ensure continued alignment and compliance.**

## B. MAINTENANCE MANAGEMENT PRINCIPLES

- 1) The following are overarching principles to be used by landowners and managers when considering the development and implementation of a MMP:
  - a. The anticipation and prevention of negative impacts and risks, then minimisation, rehabilitation or 'repair', where a sequence of possible mitigation measures to avoid, minimize, rehabilitate and/or remedy negative impacts is explicitly considered;
  - b. Avoid and reduce unnecessary maintenance;
  - c. Maintenance and management of a watercourse must be informed by the condition of the physical and ecological processes that drive and maintain aquatic ecosystems within a catchment, relative to the desired state of the affected system;
  - d. Management actions must aim to prevent further deterioration to the condition of affected watercourses and, overall, be guided by a general commitment to improving and maintaining ecological infrastructure for the delivery of ecosystem services;
  - e. Managers and organs of state must identify, address and, where feasible, eliminate the factors that necessitate intrusive, environmentally-damaging maintenance; and
  - f. A process of continuous management improvement be applied, namely Planning; Implementing; Checking (monitoring, auditing, determine corrective action) and Acting (management review).
  
- 2) The following table provides a simple overview for the determination of the need for a MMP:

	<b>Question</b>	<b>If the answer to any of the questions is YES, then a MMP may be applicable.</b>
2.1	Is there a watercourse on or adjacent to the property?	Yes
2.2	Has there been a history of flood damage or vandalism to the existing infrastructure or watercourse – erosion and/or sedimentation?	Not that the EAP is aware of
2.3	Is there infrastructure or any community at risk of being damaged by flooding?	Yes, but this is for a 1:100 year flood event and no community would be affected, only the proposed development
2.4	Is the design of infrastructure considered inadequate in terms of managing the risk of flooding, erosion and/or sedimentation?	The current infrastructure is inadequate, however the proposed flood management measures are considered adequate to contain a 1:100 year flood (Obree, 2021)
2.5	Would you consider an improved design to existing infrastructure to reduce maintenance needs?	Yes, this would contain the 1:100 year flood to the stream 10
2.6	Are there specific incidences where the watercourse is obstructed or blockages occur that alter the flow of the river during floods?	Yes, during high rain/flood events, the overtopping of the dam to the east of the site contributes to flooding. The Hoof Road crosses over the watercourse at the upstream corner of the development site (Obree,

		2021). Twin box culverts of approximately 1.5m x 1.5m are provided at this crossing (Obree, 2021). These box culverts restrict flow, causing a build-up of water on the upstream side (Obree, 2021). Flows in excess of about 8m <sup>3</sup> /s will result in overtopping of the road on either side of the culvert, since the level of the road has been raised at this point (Obree, 2021). Due to the topography of the area on either side of the crossing, excess flows (that do not pass through the culverts) will move overland in an uncontrolled manner, with some of this water passing through the site of the proposed development (Obree, 2021).
2.7	Is there an existing obstruction in the watercourse that has changed the flow of the river under normal conditions?	No, only for flows in excess of about 8m <sup>3</sup> /second
2.8	Is there a marked increase in the rate of erosion/sedimentation being experienced which threatens operations and assets?	No
2.9	Is there a presence of alien or bush encroachment vegetation within the watercourse and/or the presence of woody debris after flooding?	Yes, to a degree

- 3) It is important to consider that the type of maintenance required will impact on the level of assessment needed in terms of the impact the activity will have on the system and how best to mitigate the impact. Types of maintenance can broadly be classified in the following categories, with recognition that maintenance activities vary across the rural and urban context:

Maintenance Category	Types of maintenance activities
<b>Category A:</b> Sediment removal as a result of deposition or sediment deposition as a result of erosion	Clearing sediment from culverts and the associated drift. After these are constructed as part of the proposed development.
<b>Category B:</b> Emergency repairs – urgent action required to manage risk and damage to assets	Construction of the flood management measures. These measures comprise the conversion of the existing culvert crossing on Hoof Road to an engineered low level road crossing to contain flood flow safely under and over the new culverts, within the river corridor. The existing berm on the development side of the watercourse would also be formalised to be continuous, reprofiled and raised. The existing head-cut within the stream would be “flooded” (i.e., water would be allowed to pool therein) so that the erosive cut is less likely to move upstream and there would be some low retaining of the channel side embankments in gabions, as well as floor armouring throughout the structure. This also includes any temporary construction access pathways needed to the stream and culverts.

<p><b>Category C:</b> Managing alien invasive and bush encroachment plant species</p>	<p>Removal of invasive alien plant species to reduce maintenance requirements as they relate to erosion and sedimentation and to improve hydrological flow and reduce associated flooding impacts. This must be removed from the stream 10 corridor and from wetlands and associated ecological buffers within site limits.</p>
<p><b>Category D:</b> Rehabilitation and restoration activities for maintaining ecological infrastructure</p>	<ul style="list-style-type: none"> <li>• Head-cut at contour 203.5: install small weir at the site of the head-cut, tied into the banks, followed by a steep but stepped waterfall structure and a short section of armouring on the base of the channel downstream of the “waterfall” to prevent down-cutting (Snaddon, 2021) as part of the stream and wetland rehabilitation plan.</li> <li>• A stepped gabion weir structure will achieve stabilisation of the channel and head-cut (Snaddon, 2021). This proposes the construction of a series of gabion weirs along the stretch of river below the head-cut (Snaddon, 2021).</li> <li>• Snaddon (2021) confirms other stabilisation measures can be used elsewhere on the site, in order to prevent erosion in and around planted areas. Stabilisation materials include: <ul style="list-style-type: none"> <li>○ Ecologs (dry woody material or sand contained in a hessian and chicken wire roll;</li> <li>○ Biodegradable netting/matting;</li> <li>○ Geotextile matting of thick filaments designed to be secured over a vulnerable slope to prevent surface erosion;</li> <li>○ Mulch stabilisation, or</li> <li>○ Compost stabilisation</li> </ul> </li> </ul> <p>Replanting/rehabilitation of stream 10 corridor and wetlands and associated buffers on site- Areas that have been impacted by construction within the wetlands, streams or their buffers must be re-planted with indigenous plant species (Snaddon, 2021). Planting must also be as per the final approved landscape plan.</p> <ul style="list-style-type: none"> <li>• Maintenance of berms, culverts, drift and other flood protection and rehabilitation measures (e.g. gabions, bank stabilisation, etc.) for stream 10.</li> <li>• Maintenance of structures within the wetlands and their ecological buffers. Given that some hard landscaping (like the amphitheatre and pathways/boardwalks) would occur within these areas, there would be a need for some maintenance (although not likely to be frequent).</li> </ul>

- 4) The development of appropriate method statements to mitigate the impact of the maintenance needs, should be aligned within the framework of these considerations:
- a. Watercourses experience a natural process of sedimentation and erosion, with varying rates depending on the geomorphology and the integrity of the land-uses within the catchment;
  - b. Manipulation of the watercourse results in increased erosion and/or deposition being experienced further downstream, perpetuating greater need for manipulation and more drastic and costly maintenance interventions;
  - c. Locally indigenous riparian and wetland vegetation assists in the stabilization of river banks through effective root structures, while contributing to improve in-stream habitat and water quality conditions;
  - d. Invasive alien and bush encroachment vegetation significantly impacts on the functioning of a watercourse, often leading to increased flood associated damage, with further implications and a reduction in water quality and availability;
  - e. Persons undertaking maintenance activities have a responsibility to ensure a sense of duty of care is applied as prescribed within NEMA Section 28(1).
- 5) It is recognized that within urban areas, sedimentation and erosion rates are significantly amplified as a result of development in urban areas and thus systems associated with watercourses in such areas can no longer be considered as 'natural'. In such a context, the drivers of such a process are often located outside the control of the landowner or responsible authority (i.e. Municipality). Therefore, the response taken to address the needs of a maintenance management plan for a watercourse within the urban environment may be limited in mitigating the requirement for maintenance to be undertaken.

### C. REQUEST FOR THE COMPETENT AUTHORITY TO DEFINE OR ADOPT A MAINTENANCE MANAGEMENT PLAN FOR A WATERCOURSE IN TERMS OF THE NEMA, EIA REGULATIONS 2014 (AS AMENDED).

The following information must be submitted as part of the request for the competent authority to define or adopt the MMP:

#### 1. PERSONAL DETAILS

Highlight the Departmental Sub-Region(s) in which the maintenance is to be undertaken. (mark the appropriate box with an 'X'). For Departmental details see Annexure A.

REGION 1 (City of Cape Town Metropolitan and West Coast District) <input type="checkbox"/>	REGION 2 (Cape Winelands District, Overberg District) <input type="checkbox"/>	REGION 3 (Eden & Central Karoo Districts) <input type="checkbox"/>
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Name of person/authority who will undertake responsibility for the activity:	Boschendal (Pty) Ltd represented by Mr. William George		
Contact person (if other):	Mr. William George		
Postal address:	P.O Box 35, Pniel Main Road		
Telephone:	(021) 870 4249	Postal code:	7681
Fax:	Not Applicable	Cell:	082 559 9100
Email:	<a href="mailto:Williamg@alphawealth.co.za">Williamg@alphawealth.co.za</a>		
Name of person who has prepared the MMP:	Chand Environmental Consultants cc represented by Claudette Muller		
Contact Person (if other):	Claudette Muller		
Postal address:	PO Box 238, Plumstead		
Telephone:	(021) 762 3050	Postal code:	7801
Fax:	086 665 7430	Cell:	Not Applicable
E-mail:	<a href="mailto:claudette@chand.co.za">claudette@chand.co.za</a>		
Name of landowner(s) on whose behalf the plan has been developed*:	Boschendal (Pty) Ltd		
Contact person(s):	As above		
Postal address:	As above		
Telephone:	As above	Postal code:	As above
Fax:	Not applicable	Cell:	As above
E-mail:			
Municipality for proposed project:	Stellenbosch Municipality		
Farm name(s), erf(s) and portion number(s) etc*:	A portion of portion 11 of farm 1674, paarl		
Magisterial District or Town:	Pniel		
Name(s) of watercourse(s) in question:	Stream 10, New Retreat seep and Dwars River unchanelled valley-bottom wetland- but only within the limits of the site boundary for the proposed development of the New Retreat		
<b>*In instances where there is more than one landowner, please attach a list of landowners with their full names, contact details, farm name, farm number, portion number, Erf number, coordinates and signed declaration confirming approval for development and responsibility of the MMP</b>			

## 2. DECLARATION

### THE PERSON THAT WILL BE UNDERTAKING THE MAINTENANCE

I William George, in my **personal capacity** or **duly authorised** (please circle the applicable option) by Boschendal (Pty) Ltd (name of legal entity) ~~thereto hereby~~ declare that I/we:

- Request the MMP to be adopted by the Competent Authority;
- Regard the information contained herein to be true and correct for this Maintenance Management Plan;
- Am fully aware of my responsibilities in terms of the National Environmental Management Act of 1998 ("NEMA") (Act No. 107 of 1998) and that, notwithstanding the adoption of this MMP, I/we shall comply with any other statutory requirement applicable, which may include, but not limited to the Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983), the National Water Act, 1998 (Act No. 36 of 1998) and the Environmental Impact Assessment Regulations, 2014 (as amended) ("EIA Regulations"), in terms of NEMA;
- Am fully aware that the proposed maintenance constitutes a listed activity in terms of the NEMA EIA Regulations, 2014 (as amended) and that an environmental assessment for environmental authorisation may be required for any other listed activities not included as part of this MMP;
- Acknowledge that any activity undertaken that does not form part of the defined and adopted MMP, will be subject to the Section 24(F) of NEMA and that appropriate enforcement and compliance requirements will follow;
- Shall undertake only those tasks described in the MMP, failing which environmental authorisation will be required, where applicable;
- Shall provide the competent authorities with access to all information at my disposal that is relevant to this request;
- Shall be responsible for any costs incurred in complying with environmental legislation;
- Hereby indemnify the government of the Republic, the competent authority and all its officers, agents and employees, from any liability arising out of, inter alia, any loss or damage to property or person as a consequence of undertaking this MMP; and
- Am aware that a false declaration is an offence in terms of Regulation 48(1)(a) GN No. R. 982 of 4 December 2014 (as amended).



Signature of the proponent:

16 November 2021

Date:

Boschendal (Pty) Ltd

Name of institution/company:



### 3. BACKGROUND AND INTRODUCTION

*This is indicated in the MMP.*

*The MMP (MMP) must be submitted with the signed declaration (see above) for the MMP to be defined or adopted in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), Environmental Impact Assessment Regulations, 2014 (as amended).*

*Provide a strategic overview of the need for the development of the MMP – what is the need for this plan; how this plan will aim to contribute to furthering sustainable practices and reducing and/or mitigating the need for maintenance.*

*This section must also include details of the responsible party who will implement the MMP, engineers or other specialists appointed and the specifications for their appointment to assess the needs for the maintenance work, the Environmental Assessment Practitioner (EAP) or consultant appointed to compile the MMP. A short portfolio of evidence which indicates the relevant freshwater/ aquatic experience of the EAP/consultant or the person who prepared the MMP is required as supporting information to the introduction.*

*Should sufficient expertise and resources be available for the development of an MMP by the proponent, the process of appointing an EAP for the final compilation and submission of the MMP to the Department is still required.*

#### 3.1 DEFINITIONS OF TERMS AND ACRONYMS

*Acronyms and technical terms used in the MMP must be defined or clarified so that the person(s) who must implement the plan understands the document clearly.*

### 4. ENGAGEMENT PROCESS

#### 4.1 AUTHORITY ENGAGEMENT

Please indicate (with an 'x') which of the following authorities have been consulted to provide input based on the proposed maintenance activities:

- X Department of Water and Sanitation- *(they have been provided with the Freshwater Report and Proposed Plans as part of the GA registration, and have also been provided with the post-application draft BAR and MMP, noting the EMPr is appended to the BAR and contains the MMP for comment- their comment is awaited)*
- Catchment Management Agency (DWS is the custodian of this, as above- no catchment management agency established for the Berg River)
- X CapeNature *(they have been provided with the post-application draft BAR and MMP, noting the EMPr is appended to the BAR and contains the MMP for comment- their comment is awaited)*
- X SANParks *(they have been provided with the post-application draft BAR and MMP, noting the EMPr is appended to the BAR and contains the MMP for comment- their comment is awaited)*
- X Western Cape Department of Agriculture, Directorate: Sustainable Resource Management *(they have been provided with the post-application draft BAR and MMP, noting the EMPr is appended to the BAR and contains the MMP for comment- their comment is awaited)*
- X District Municipality *(they have been provided with the post-application draft BAR and MMP, noting the EMPr is appended to the BAR and contains the MMP for comment- their comment is awaited)*
- X Local Municipality *(they have been provided with the post-application draft BAR and MMP, noting the EMPr is appended to the BAR and contains the MMP for comment- their comment is awaited)*
- X Irrigation Board / Water Users Association *(they have been provided with the post-application draft BAR and MMP, noting the EMPr is appended to the BAR and contains the MMP for comment- their comment is awaited)*
- X Heritage Western Cape *(they have been provided with the post-application draft BAR and MMP, noting the EMPr is appended to the BAR and contains the MMP for comment- their comment is awaited)*

X Department of Agriculture, Forestry and Fisheries (they have been provided with the post-application draft BAR and MMP, noting the EMPr is appended to the BAR and contains the MMP for comment- their comment is awaited)

X Department of Environmental Affairs & Development Planning (they have been provided with the post-application draft BAR and MMP, noting the EMPr is appended to the BAR and contains the MMP for comment- their comment is awaited)

Other (please list):

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For each of the indicated authorities, please provide an explanation as to their required involvement. Details of interactions with each of the respective authorities should be captured by providing an attendance register and minutes of meetings attended with the authority in question. Comments received from the authorities must be submitted and referenced within the final application. Comments will be provided with the final application. All parties were provided with electronic copies of the post-application Draft Basic Assessment Report, which includes the MMP, for comment.

**Not Applicable:** For a MMP where multiple property owners are involved or a plan is developed for members of an association, it is recommended that a Project Liaison Committee is setup, to achieve the following objectives:

- Present the project work plan and objectives for approval;
- Present the initial findings and draft of the plan for discussion and approval;
- Present the final accepted plan for agreement and clarification.

**Not Applicable:** In cases where the Municipality is the proponent, it is advised that the Project Liaison Committee represent the multiple departments involved with the maintenance and management of watercourse, which could include but is not limited to departments of, Stormwater, Water and Sanitation, Environment, Parks and Wastewater. Such an approach seeks to ensure alignment and an understanding of the roles and responsibilities of the varying maintenance requirements within the Municipality.

## 4.2 PUBLIC PARTICIPATION

Refer to the Basic Assessment Report for details regarding the Public Participation Process (noting that a revised Public Participation Plan has been submitted as part of the Application), as well as to Appendix F thereof.

You are required to notify any and all potential interested and affected party(ies) of the proposed activity(ies) and allow them the opportunity to comment on the MMP for a watercourse. The detail required is outlined below, however this can be further discussed and determined as part of the pre-consultative meeting with the Department, which would ensure due diligence and good governance principles are applied.

It is noted, that for the development of MMPs for watercourses within the urban area, by Municipalities, public notice can be undertaken through the advertisement of the development of a MMP within local/community newspapers for the respective areas, with the relevant evidence of such an advertisement included in the final submission.

The following public participation recommendations, regarding the different scale or geographical extent of the request, are as follows. If no, then motivation must be given as to why a particular process was not undertaken.

**Single property / maintenance and management activities along a watercourse occurring along a stretch of no more than 1 kilometer (≤1000 meters):**

<p>(i) Given written notice to the owner or person in control of that land if the person undertaking the maintenance activity is not the owner or person in control of the land.</p>	<p><b>Yes / No/ NA</b>  Not Applicable, applicant is landowner</p>	<p><b>Evidence to be letter from landowner acknowledging development of MMP.</b></p>
<p>(ii) Given written notice to adjacent landowners (up to 500m upstream and downstream from furthest upstream and downstream maintenance site and opposite side of the banks) of the development of the MMP.</p>	<p><b>Yes / No/ NA</b>  Notification letters have been sent to landowners adjacent to the farm portion, but Boschendal/ Applicant owns the land around the site and 500m up- and down-stream.</p>	<p><b>Evidence to be dated letters addressed to landowner and/or manager of adjacent properties.</b></p>
<p>(iii) Stakeholder meeting held for adjacent landowners, in which MMP is presented. This must include an opportunity for adjacent landowners to provide comment.</p>	<p><b>Yes / No</b>  Not required, see note above regarding adjacent landowners</p>	<p><b>Evidence will consist of meeting requests, attendance register of said meeting, minutes / notes of the meeting, and comments provided.</b></p>
<p>(iv) Given written notice to any organ of state having jurisdiction in respect of any aspect of the activity(ies) proposed within the development of the MMP.</p>	<p><b>Yes / No</b>  Yes, notification of availability of the BAR and MMP will be provided to the state departments as indicated above.</p>	<p><b>Evidence will include relevant dated letters to the relevant government agencies and departments.</b></p>
<p>(v) Provided written notice and confirmation to the relevant Water Users Association (WUA) or Irrigation Board (IB) of the Berg River</p>	<p><b>Yes / No</b>  Berg River</p>	<p><b>Evidence to be dated letter(s) to management</b></p>

development of the MMP, if applicable.	Irrigation Board to be notified of availability of the BAR and MMP for comment	<b>body (secretary and chairperson) for the WUA/IB.</b>
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**Single or Multiple properties / WUA / IB / local authority applying for a single MMP to cover a stretch of a watercourse longer than 1 kilometer (>1000 meters) OR a catchment or sub-catchment area**  
**Not Applicable**

(i) Given written notice to the owner(s) or person(s) in control of the land if the person(s) undertaking the maintenance activity(ies) is not the owner or person in control of the land.	<b>Yes / No</b>	<b>Evidence to be letter from landowner acknowledging development of MMP.</b>
(ii) Given written notice to non-participating adjacent landowners (up to 1km upstream and downstream from furthest upstream and downstream maintenance site and opposite side of the river banks) of the development of the MMP. <i>This must also include general notice to adjacent WUA or IB of the proposed MMP development if application is made by a WUA or IB.</i>	<b>Yes / No</b>	<b>Evidence to be dated letters addressed to landowner and/or manager of adjacent properties.</b>
(iii) Stakeholder meeting held for all participating and non-participating landowners, in which details and methodology of MMP is presented. A minimum of two meetings are required, to present on the development of the plan and a final draft version of the plan.	<b>Yes / No</b>	<b>Evidence will consist of meeting requests, attendance register of said meeting, minutes/ notes of the meeting, and comments provided.</b>
(iv) Given written notice to any organ of state having jurisdiction in respect of any aspect of the activity(ies) proposed within the development of the MMP.	<b>Yes / No</b>	<b>Evidence will include dated letters to the relevant government agencies and departments.</b>
(v) Provide written notice and confirmation to the relevant Water Users Association (WUA) or Irrigation Board (IB), of the development of the MMP <i>(if a MMP is not requested and managed through a WUA/IB).</i>	<b>Yes / No</b>	<b>Evidence to be dated letter(s) to management body (secretary and chairperson) for the WUA/IB.</b>
(vi) Describe any other measures taken to inform the public about this MMP. A complete list of measures that are in place to deal with interactions with the public, if it becomes necessary and required by the competent authority during implementation of the project, must be provided for.	<b>Yes / No</b>	<b>Evidence to be referenced accordingly based on the measures taken and/or developed.</b>

Kindly note, the Department may request further or allow reduced requirements for public participation, noting the specific circumstances applied to each request to define or adopt an MMP. Please include or delete the respective sections as agreed to with the Department in the pre-consultative meeting, with supporting evidence of this agreement included.

Please circle the appropriate answer above to indicate the public participation process that has been followed to give notice of this request to potential interested and affected parties and attach any comments and/or objections received, with evidence provided and referenced.

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## 5. DATA COLLECTION AND ASSESSMENT

*[This section is intended to provide the required information on the needs for the scientific content and methodology statements of a MMP. It provides headings for the various sections that a MMP must contain, as well as a brief description of typical content and the level of detail required under each heading]*

**Note:** Information relating to the specifications and Terms of Reference used for the appointment of all specialist inputs must be provided.

**Information required for maintenance and management activities for a single/ multiple owner along a watercourse.** This is indicated in the MMP.

- 5.1 Provide a map (at an appropriate scale) of the watercourse or stretch of watercourse being applied for within the stretch where maintenance activities will take place being clearly defined – consideration must be made to mapped features relating to Critical Biodiversity Areas (CBAs) and National Freshwater Ecosystem Priority Areas (NFEPAs).
- 5.2 GPS coordinates must be provided for all site(s) at which maintenance activities will take place and included on the map which defines the stretch of watercourse. Coordinates must be provided in degrees, minutes and seconds using the Hartebeesthoek94 WGS84 coordinate system. Where numerous properties/sites are involved (e.g. linear activities), you may attach a list of property descriptions and co-ordinates to this form.
- 5.3 Specialist assessment to be undertaken to determine (NOTE: information relating to the specifications and Terms of Reference used for the appointment of all specialist inputs must be provided):
  - Hydrological (incl. flood hydrological data etc.) and geomorphological assessment of watercourse functioning;
  - The relevant Present Ecological Status (PES) of the stretch of watercourse in question, if not available an assessment is to be done to determine PES in accordance with the Department of Water and Sanitation (DWS) guidelines;
  - What is the reason/cause for the maintenance activities based on an ecological and hydrological assessment of the watercourse within the context of the larger catchment;
  - What are the drivers of system functioning within the watercourse and what is the ecological objective – based on historical condition and PES;
  - What is the management objective given the ecological status of the watercourse based on historical and PES data; as set out in agreement with the person(s) responsible for undertaking the maintenance activities;
  - What is the impact on the watercourse/river system (resource quality characteristics: flow regime, geomorphology, water quality, habitat and biota) for a minimum of 500m both up and downstream of the proposed maintenance activities, with the mitigation measures included;
  - An appropriate assessment for risk for each of the proposed types of maintenance activities and linked management actions in terms of the risk matrix for General Authorisations (GA) of Section 21 (c) and (i) by the DWS (GN 509 of 2016) or where applicable.

- 5.4 Mapped biodiversity features such as Critical Biodiversity Area, Ecological Support Area, National Freshwater Ecosystem Priority Area (NFEPA), and the National list of Ecosystems that are threatened and in need of protection (2011) gazetted in terms of Section 52 of the National Environmental Management: Biodiversity Act (Act No. 10 of 2004) (NEMBA), the Western Cape Biodiversity Spatial Plan 2017, as well as relevant provincial specific plans and classifications etc. Please consult the website [www.bgis.sanbi.org.za](http://www.bgis.sanbi.org.za) to determine mapped features.
- 5.5 Include a description of existing or previous protection measures or reinforcements (eg. gabions or groynes etc.) and infrastructure. Describe any evidence of erosion and/or siltation at the various sites and outlining possible causal factors and maintenance practices.
- 5.6 Provide historical maps and data (images/flow/water quality/land use) of the river channel (if available) in order to assess the natural to changing flow patterns of the watercourse to determine cause of maintenance and possible impact of the maintenance activities, to inform mitigation measures.
- 5.7 Provide a photographic record for the condition of the riparian habitat around maintenance sites, with the presence of important and/or sensitive habitat/species noted.
- 5.8 For sites prone to flood damage, a description regarding the history and effect of past floods and include dates of most recent events must be provided. This must inform the process to understand what actions are required along the stretch of the watercourse to reduce such impacts to the resource quality characteristics.
- 5.9 Explain the risks associated with the no-go option for the MMP i.e. the risk of not undertaking the maintenance activities as stated in the MMP.
- 5.10 Reference must be made to any strategic plan where available, for example, a Catchment Management Strategy, with the objectives of the MMP shown to be in alignment with such plans.

## **6. METHOD STATEMENT**

[Method Statements are provided in the MMP.](#)

- 6.1 The method statement must provide a step-by-step plan (which may include a schematic diagram etc.) to inform the responsible person(s) on the process and actions to take in a sequential and logical manner, which aims to reduce the impact of undertaking the activity within a reasonable timeframe and cost.
- 6.2 A method statement should be compiled for each individual activity given the likely specific circumstances and conditions of a site requiring maintenance. However, in situations whereby uniform conditions and circumstances are evident for multiple sites requiring the same type of activity, a method statement can be given for a specific type of activity to be undertaken at multiple sites given the aforementioned requirements.
- 6.3 The detail of the method statement will be assessed by the Department and other relevant regulatory authorities to ensure actions that are taken are such that they do not perpetuate increased incidences of erosion/deposition of material.

6.4 Time periods must be given within which the maintenance actions contemplated need to be implemented. An indication must be made whether maintenance actions will be repeated, e.g. clearing of silt/debris from under a bridge annually or after flood events.

6.5 The following serves as a general guide required to minimise the spatial impact of the maintenance activity:

- Repairs and maintenance should be undertaken within the dry season, except for emergency maintenance works.
- Where at all possible, existing access routes should be used. In cases where none exist, a route should be created through the most degraded area avoiding sensitive/indigenous vegetation areas.
- Responsible management of pollutants through ensuring handling and storage of any pollutants is away from the watercourse. When machinery is involved, ensure effective operation with no leaking parts and refuel outside of the riparian area, at a safe distance from the watercourse to manage any accidental spillages and pose no threat of pollution.
- At no time should the flow of the watercourse be blocked (temporary diversions may be allowed) nor should the movement of aquatic and riparian biota (noting breeding periods) be prevented during maintenance actions.
- No new berms can be created.
- In circumstances which require the removal of any top soil, this must be sufficiently restored through sustainable measures and practices.
- Concerted effort must be made to actively rehabilitate repaired or reshaped banks with indigenous local vegetation.
- No deepening of the watercourse beyond the original, pre-damage determined thalweg, unless such deepening is directly related to the natural improved functioning and condition of such a watercourse.
- Where at all possible, limit the disturbance to the zone of the thalweg. This is due to the ecological importance of the low flow channel and respective habitat being allowed to re-establish improving the ecological condition.
- The build-up of debris/sediment removed from a maintenance site may:
  - be utilised for the purpose of in-filling or other related maintenance actions related to managing erosion, which form part of an adopted MMP;
  - not be used to enlarge the height, width or any extent of existing berms;
  - not be deposited anywhere within the watercourse or anywhere along the banks of a river where such action is not part of the proposed maintenance activity (ies). Material that cannot be used for maintenance purposes must be removed out of the riparian area to a suitable stockpile location or disposal site. Further action and consideration may be required where the possibility of contaminated material may occur, such as in urban watercourses.
- The use of foreign material, such as concrete, rubble, woody debris and/or dry land based soil, is strictly prohibited from being used in maintenance actions, unless for the specific purpose of repairs to existing infrastructure, coupled with appropriate mitigation measures.



- On completion of the maintenance action, the condition of the site in terms of relative topography should be similar to the pre-damaged state (i.e. the shape of the river bank should be similar or in a state which is improved to manage future damage). This ultimately dictates that the channel, banks and bed cannot be made narrower, higher or deepened respectively. Exceptions are considered for systems involved with the management of stormwater and improvements for water quality within the urban context.

## **7. MONITORING AND REPORTING**

Monitoring and reporting requirements are indicated in the MMP.

It is important to note that any and all activities undertaken outside the scope of the adopted MMP, in terms of the action outlined within the given method statement, the responsible person(s) will be subject to Section 24(F) of NEMA and that appropriate enforcement and compliance requirements will follow.

The specific reporting information required by the competent authority should be discussed during the consultation phase between the proponent and the Department. The relevant information required should be considered on a case-by-case basis.

The following Forms A and B are to be considered as a guideline in terms of the type of information required. It is proposed that Form A below must be completed by the relevant person(s) before maintenance activities are undertaken and Form B after a maintenance activity has been completed. A copy of each completed Form A & B must be sent to the relevant WUA/IB/local authority management if they have undertaken the development of the MMP. For any individual landowner applications, the landowner is responsible to ensure a record of all maintenance activities is recorded as per Form A & B below. Form A and B must also be sent to the Provincial Department of Agriculture, Directorate: Sustainable Resource Management.

The Department may, within a reasonable notice period, request to evaluate the maintenance activities and assess the maintenance sites as per the adopted MMP.

Form A should be completed at least 7 working days before the commencement of any maintenance activity and Form B at least 3 working days following the completion of the maintenance activity(ies). At least two photographs are required from two different points of perspective (A and B) looking at the site (coordinates of these points are required). When listing the type and reference code, this must be done by specifically listing the relevant detail within the adopted MMP.

**REPORTING FOR INTENT TO UNDERTAKE MAINTENANCE ACTIVITIES – FORM A**

**Section A: Landowner Details**

<b>Name</b>	<b>Surname</b>	<b>Farm No.</b>	<b>Erf No.</b>	<b>Today's Date</b>

**Section B: Details of proposed maintenance activity**

<b>WUA/GA reference number and DEA&amp;DP reference number for MMP.</b>	<b>Activity Type:</b>	<b>Reference code (make reference to MMP)</b>	<b>Footprint area (m<sup>2</sup>)</b>	<b>Volume of material (m<sup>3</sup>)</b>
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<b>Equipment to be used:</b>	<b>Description of method for planned activity:</b>	<b>Date when work will commence:</b>
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<b>Date of last flood event for site:</b>	<b>Note any further damage and comments regarding the state of the site</b>
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**Section C: Photographs of activity location before maintenance**

<b>Before A</b>  <b>Coordinates:</b> <b>S</b>  <b>E</b>	
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<b>Before B</b>  <b>Coordinates:</b> <b>S</b>  <b>E</b>   <b>Date of photos taken:</b>	
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**REPORTING FOR COMPLETION OF MAINTENANCE ACTIVITIES – FORM B**

**Section A: Landowner Details**

<b>Name</b>	<b>Surname</b>	<b>Farm No.</b>	<b>Erf No.</b>	<b>Today's Date</b>

**Section B: Details of proposed maintenance activity**

<b>WUA/GA reference number and DEA&amp;DP reference number for MMP.</b>	<b>Activity Type:</b>	<b>Reference code (make reference to MMP)</b>	<b>Footprint area (m<sup>2</sup>)</b>	<b>Volume of material (m<sup>3</sup>)</b>
<b>Equipment that was used:</b>	<b>Description of method for completed activity and if commence date changed</b>			<b>Date activity completed</b>
<b>Date of last flood event for site:</b>	<b>Note any challenges or difficulties experienced in following the MMP method statement</b>			

**Section C: Photographs of activity location after maintenance**

<b>After A</b>  <b>Coordinates:</b> <b>S</b>  <b>E</b>	
<b>After B</b>  <b>Coordinates:</b> <b>S</b>  <b>E</b>   <b>Date of photos taken:</b>	

## DEFINITIONS

**"Activity"** means an activity identified in any notice published by the Minister or MEC in terms of section 24D(1)(a) of the Act as a listed activity or specified activity. Activity in this document refers to the activities as listed in Listing Notice 1, 2 and 3 of the Environmental Impact Assessment Regulations, 2014 (as amended).

**"Bush Encroachment"** means stands of plants of the kinds specified in column 1 of Table 4 of the Conservation of Agricultural Resources Act (Act No. 43 of 1983) where individual plants are closer to each other than three times the mean crown diameter.

**"Diverting"** as defined in the General Authorisation, in terms of section 39 of the National Water Act, 1998 (Act no 36 of 1998) for Water Uses as defined in Section 21(c) and 21(i) (GN. 509 of 26 August 2016), means to, in any manner, cause the instream flow of water to be rerouted temporarily or permanently.

**"Ecological Infrastructure"** refers to naturally functioning ecosystems that deliver valuable services to people, such as water and climate regulation, soil formation and disaster risk reduction.

**"Estuary"** has the meaning assigned to it in the National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008)

**"Flood event"** is the event where land is inundated by the overflowing of water from a river channel and where this event causes significant damage to infrastructure or results in watercourse erosion and/or sediment deposition.

NOTE that flooding can be a natural phenomenon in many river or wetland systems which, due to encroachment and human modification of the form and function of the affected system, may have evolved into a potential hazard to life or property.

**"Flow-altering"** as defined in the General Authorisation, in terms of section 39 of the National Water Act, 1998 (Act no 36 of 1998) for Water Uses as defined in Section 21(c) and 21(i) (GN. 509 of 26 August 2016), means to, in any manner, alter the instream flow route, speed or quantity of water temporarily or permanently.

**"General Authorisation"** in this document refers to the General Authorisation in terms of section 39 of the National Water Act, 1998 (Act no 36 of 1998) for Water Uses as defined in Section 21(c) or Section 21(i) (GN. 509 of 26 August 2016).

**"Impeding"** as defined in the General Authorisation, in terms of section 39 of the National Water Act, 1998 (Act no 36 of 1998) for Water Uses as defined in Section 21(c) and 21(i) (GN. 509 of 26 August 2016), means to, in any manner, hinder or obstruct the instream flow of water temporarily or permanently, but excludes the damming of flow so as to cause storage of water.

**"Indigenous vegetation"** refers to vegetation consisting of indigenous plant species occurring naturally in an area, regardless of the level of alien infestation and where the topsoil has not been lawfully disturbed during the preceding ten years.

**"Maintenance"** means actions performed to keep a structure or system functioning or in service on the same location, capacity and footprint.

**“Maintenance Management Plan”** means a management plan for maintenance purposes defined or adopted by the competent authority.

**“River Management Plans”** as defined in the General Authorisation, in terms of section 39 of the National Water Act, 1998 (Act no 36 of 1998) for Water Uses as defined in Section 21(c) and 21(i) (GN. 509 of 26 August 2016), any river management plan developed for the purposes of river or storm water management in any municipal/metropolitan area or described river section, river reach, entire river or sub quaternary catchment that considers the river in a catchment context.

**“River reach”**, a length of river characterised by a particular channel pattern and channel morphology, resulting from a uniform set of local constraints on channel form. A river reach is typically hundreds of meters in length.

**“Stretch”** a section of watercourse, delineated between two or more mapped coordinates, within which proposed maintenance activities are to take place as guided by a MMP.

**“Thalweg”** refers to the line of lowest elevation within a valley or watercourse.

**“Watercourse”** means:

- (a) a river or spring;
- (b) a natural channel in which water flows regularly or intermittently;
- (c) a wetland, lake or dam into which, or from which, water flows; and  
any collection of water which the Minister may, by notice in the Gazette, declare to be a watercourse as defined in the National Water Act, 1998 (Act No. 36 of 1998); and

a reference to a watercourse includes, where relevant, its bed and banks.

**“Wetland”** means, land which is transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is periodically covered with shallow water, and which land in normal circumstances supports or would support vegetation typically adapted to life in saturated soil.

## ACRONYMS

CBA	Critical Biodiversity Area
DEA&DP	Department of Environmental Affairs & Development Planning
DWS	Department of Water & Sanitation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
GA	General Authorisation, in terms of the National Water Act, 1998 (Act No. 36 of 1998)
GN	Government Notice
IB	Irrigation Board
MEC	Member of Executive Council
MMP	Maintenance Management Plan
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEMBA	National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
NFEPA	National Freshwater Ecosystem Priority Areas
NWA	National Water Act, 1998 (Act No. 36 of 1998)
PES	Present Ecological State
SANParks	South African National Parks Authority
WUA	Water Users Association
WULA	Water Use Licence Application

## REFERENCE GUIDE FOR DRAFTING MMPs FOR A WATERCOURSE

Ecosystem Guidelines for Environmental Assessment in the Western Cape, Edition 2, 2016. Available at: [www.bgis.org.za](http://www.bgis.org.za)

Wetland offsets: A best practice guideline for South Africa, 2016. Available at: <http://www.wrc.org.za>

Preliminary guideline for the determination of buffer zones for rivers, wetlands and estuaries, 2014. Available at: <http://www.wrc.org.za>

National Water Act, 1998 (Act No. 36 of 1998). Available at: <http://www.gov.za/documents/national-water-act>

General Authorisation, in terms of Section 39 of the National Water Act, 1998 (Act No. 36 of 1998) for water uses as defined in Section 21 (c) or Section 21 (i).

## ANNEXURE A

### DEPARTMENTAL DETAILS

<b>CAPE TOWN OFFICE: REGION 1 (City of Cape Town &amp; West Coast District)</b>	<b>CAPE TOWN OFFICE: REGION 2 (Cape Winelands District &amp; Overberg District)</b>	<b>GEORGE OFFICE: REGION 3 (Central Karoo District &amp; Eden District)</b>
<p>Requests for competent authority to adopt an MMP must be sent to the following details:</p> <p>Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 1) Private Bag X 9086 Cape Town, 8000</p> <p>Registry Office 1<sup>st</sup> Floor Utilitas Building 1 Dorp Street, Cape Town</p> <p>Queries should be directed to the Directorate: Development Management (Region 1) at: Tel: (021) 483-5829 Fax (021) 483-4372</p>	<p>Requests for competent authority to adopt an MMP must be sent to the following details:</p> <p>Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 2) Private Bag X 9086 Cape Town, 8000</p> <p>Registry Office 1<sup>st</sup> Floor Utilitas Building 1 Dorp Street, Cape Town</p> <p>Queries should be directed to the Directorate: Development Management (Region 2) at: Tel: (021) 483-5842 Fax (021) 483-3633</p>	<p>Requests for competent authority to adopt an MMP must be sent to the following details:</p> <p>Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 3) Private Bag X 6509 George, 6530</p> <p>Registry Office 4<sup>th</sup> Floor, York Park Building 93 York Street George</p> <p>Queries should be directed to the Directorate: Development Management (Region 3) at: Tel: (044) 805-8600 Fax (044) 8058650</p>

### WESTERN CAPE DEPARTMENT OF AGRICULTURE DETAILS

Francis Steyn  
 Director: Sustainable Resource Management, LandCare Programme  
 Western Cape Department of Agriculture  
 Private Bag X1  
 Elsenburg  
 7607  
 Main Building, Elsenburg, Muldersvlei Road  
 Tel: 021 808 5090  
 Email: [franciss@elsenburg.com](mailto:franciss@elsenburg.com)



## **APPENDIX R**

Service and capacity letters

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## **APPENDIX R (i)**

Refuse collection

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**Seppie's Transport**

15 Williamstr  
Kylemore  
Stbosch  
Seppie (0732606178)



**BILL TO**

Boschendal Pty (Itd)  
Groot Drakenstein.  
P.O.Box.25  
7680  
Att.Naomi

**INVOICE #**

205

**INVOICE DATE**

13/06/2019

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**Invoice Total**

**R1,400.00**

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QTY	DESCRIPTION	UNIT PRICE	AMOUNT
1	W/water at Jaco's house	1,400.00	1,400.00

POSTED

Vendor
G/L 37330
Dept 51-04-02
Block
G/C

**TERMS & CONDITIONS**

Nedbank Current  
L J September t/a  
Seppie's Transport  
Nr.1053767730  
Cde:10711000

250710

Smart Waste Western & Northern Cape cc  
P O Box 2330  
Somerset West  
7130

Accounts: [gayle@smartwaste.co.za](mailto:gayle@smartwaste.co.za)  
076 4725137

CC Reg No: 1998/20497/23  
VAT No: 4760263253

**TAX INVOICE**  
**BOSCHENDAL ESTATE**

TO

INVOICE NO 4197

Boschendal Estate  
Pniel Road, Groot Drakenstein  
Franschoek  
7670  
[jan.arvo@boschendal.co.za](mailto:jan.arvo@boschendal.co.za)

Date: 31-May-18

Due by: 30-Jun-19

CLIENT'S VAT NUMBER: 4170209326

QUANTITY	DESCRIPTION	UNIT PRICE	NET PRICE
1	Hire of 35 cubic metre container (general waste)	R 1 056.11	R 1 056.11
1	Collection charge for 35 cu.m. container (17 May 2019)	R 3 707.91	R 3 707.91
6	Disposal charge per ton per collection (17 May - 6 tons)	R 591.92	R 3 551.52

**POSTED**

**BANKING DETAILS**

Account Name: Smart Waste Western & Northern Cape  
Bank: FNB  
Branch Code: 200512  
Account Type: Business Essential  
Account No: 62328776854



SUB TOTAL R 8 315.54

VAT R 1 247.33

TOTAL DUE R 9 562.87

## **APPENDIX R (ii)**

Portable water demand

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Our Ref/Ons Verw: Farm 1674-11, Boschendal Retreat

Your Ref/U Verw:

19 April 2021

Mr. Marc Middelman  
43B Goldbourne Road  
Kenilworth  
Cape Town

Enquiries: Colin Taylor

By e-mail: [marc@mha-engineers.co.za](mailto:marc@mha-engineers.co.za)

Sir,

**CAPACITY STATUS OF MUNICIPAL CIVIL ENGINEERING INFRASTRUCTURE TO SERVICE THE PROPOSED ACCOMMODATION AND CONFERENCE FACILITIES DEVELOPMENT ON PORTION 11 OF FARM 1674 (THE NEW RETREAT - BOSCHENDAL FARM), DWARS RIVER**

Your enquiry regarding a capacity letter required for the abovementioned development's Environmental Authorisation process refers.

The information provided in this letter is based on the information received in the land use application (Ref: LU/11787) and our comments as per our memo dated 26 January 2021.

**1. WATER RETICULATION (pipes from water source to erf)**

The development will connect to the existing 160mm diameter municipal water line in Lanquedoc. The link water (Item 1 on GLS Figure 1) will be for the Developers cost. The route of the proposed pipeline is schematically shown on Figure 1, but has to be finalized subsequent to a detail pipeline route investigation by the Developer's Consulting Engineer and to be approved by the Municipality. Where the pipeline crosses any private property, a servitude must be registered and the Developer must provide written proof that consent is given by the Owner, prior to any drawings being approved by the Municipality. A bulk water meter must be installed before the line enters private property. The line between the connection point and the bulk water meter will be public (maintained by the Municipality) and the section between just after the bulk water meter and the development will be private (maintained by the Developer).

**2. BULK WATER SUPPLY (Reservoirs and associated infrastructure to reservoirs)**

The existing water system has sufficient capacity to accommodate the proposed development.



### **3. SEWER RETICULATION**

The development will connect to the existing Lanquedoc pumpstation. The new private pumpstation and link sewer line (Items 2 and 3 on GLS Figure 2) will be for the Developers cost. The route of the proposed pipeline is schematically shown on Figure 2, but has to be finalized subsequent to a detail pipeline route investigation by the Developer's Consulting Engineer and to be approved by the Municipality. Where the pipeline crosses any private property, a servitude must be registered and the Developer must provide written proof that consent is given by the Owner, prior to any drawings being approved by the Municipality. The new rising main will be a private line (maintained by the Developer). If it is possible for the rising main to discharge into a manhole once the line enters municipal property, and from there the sewer can gravitate, then the Municipality can consider taking over the gravitation line. Since limited detail regarding the pipe route is available at this stage, further or amended requirements and conditions may be determined at engineering drawing approval stage and will be the Developer's responsibility to implement.

### **4. MAIN OUTFALL SEWER AND WASTE WATER TREATMENT**

The proposed development falls within the catchment area of the existing Pniel WWTW (Waste Water Treatment Works). There is currently insufficient capacity at the WWTW for the proposed development. However, the Municipality is currently busy with the upgrading of the WWTW to create spare capacity. The current estimated completion date for the project is June 2022. Clearance for the five Phase 2 erven will only be given when the WWTW upgrade has been completed.

### **5. STORMWATER DETENTION**

It will be a condition for the development that the difference between the pre- and post-development stormwater run-off will have to be detained on-site. The pre-development run-off will be accommodated in the existing municipal stormwater system without any major impact on the surrounding areas.

### **6. SOLID WASTE**

It is confirmed that Stellenbosch Municipality will handle all solid waste as per the normal waste removal policy. Limited but sufficient capacity is available at the Stellenbosch waste disposal site for spoil as well as construction and demolition wastes. Whilst the landfill is not accepting domestic or commercial municipal solid waste sufficient airspace is available at the alternative site being used by the Municipality for disposal, until airspace at the Stellenbosch landfill has been authorised and constructed. Garden waste and recyclables are unaffected. If the construction phase entails generating large spoil volumes, the Developer must identify and give proof of an alternative disposal site, as the municipality will not be able to accept large spoil volumes, due to capacity constraints at the landfill site.

### **7. CONCLUSION**

In-principle, the Directorate: Engineering Services will support the proposed development subject to compliance of development conditions to be stipulated during the assessment of the land-use application. Such conditions will entail that no physical construction and or implementation of the development will be



**STELLENBOSCH**

STELLENBOSCH • PNIEL • FRANSCHHOEK

MUNISIPALITEIT • UMASIPALA • MUNICIPALITY

allowed until such time that the bulk infrastructure as discussed above, is in place and able to accommodate the proposed development.

Feel free to contact our Colin Taylor, Principal Technician: Development, on 021 – 808 8205 for any further enquiries.

Yours faithfully

**Colin Taylor Pr Techni Eng**

**Principal Technician: Development**

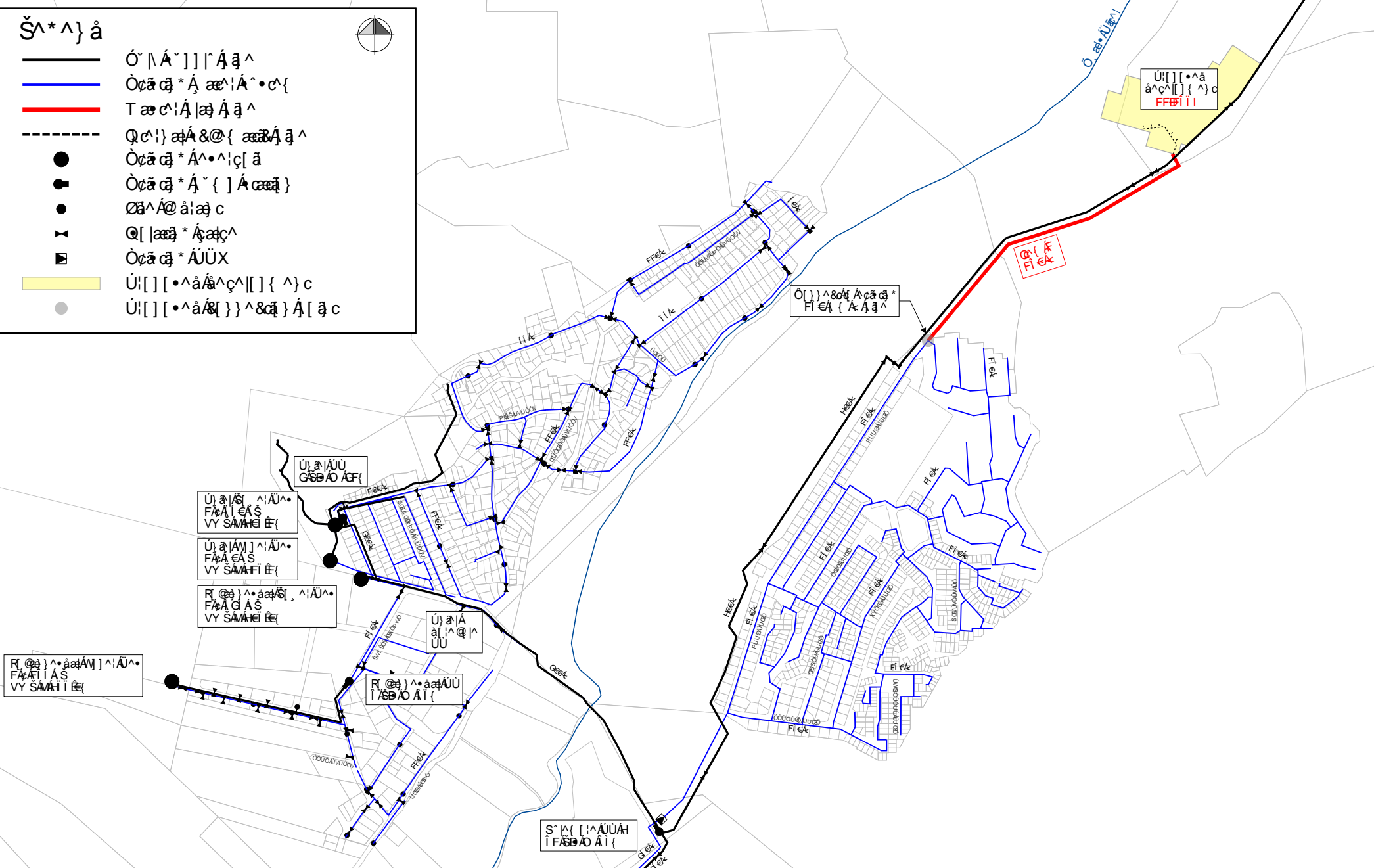
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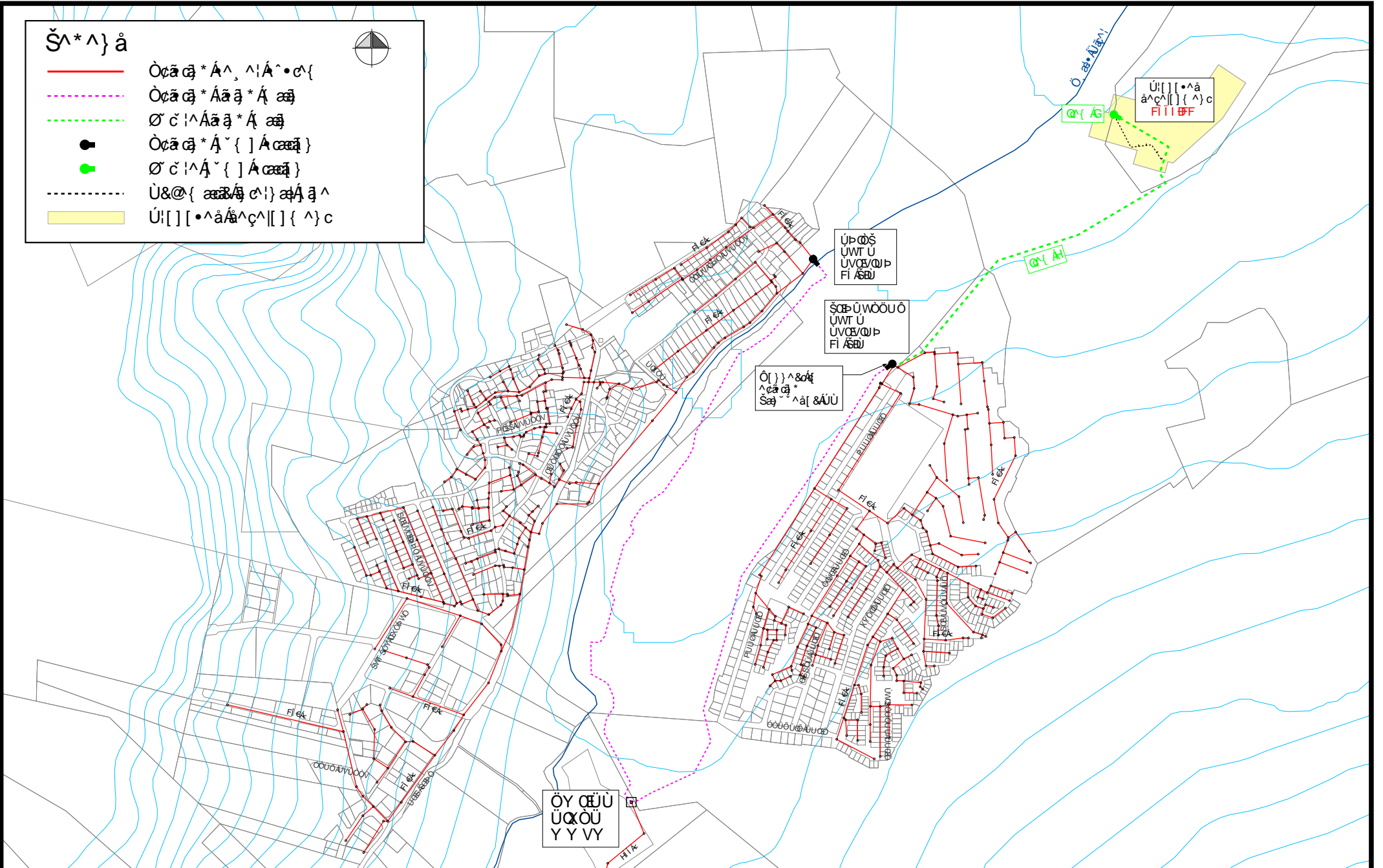


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## **APPENDIX R (iii)**

Energy supply confirmation from Eskom

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Mr Robin Clark  
Senior Electrical Engineer  
Trac Professional Services Pty Ltd  
2A Carmichael Road  
**FISH HOEK**  
7975

**Date:**  
19 April 2021

**Enquiries:**  
Miriam van der Heever  
Tel. +27 21 915 2371  
Fax. +27 86 6556969

Dear Mr Clark

**SUPPLY OF ELECTRICITY  
PROPOSED DEVELOPMENT AT BERTHA RETREAT, FARM 1674/11, BOSCHENDAL,  
PAARL**

With reference to your ENQUIRY at Eskom, I advise that Eskom is the licensed Distributor to the proposed development.

- This letter is in support of the Environmental Impact Assessment (EIA) to continue to obtain the required Environmental Approval (EA) for the development, or Municipal development rights.
- The area is within the supply area of Eskom and is supplied from on Kylemore Farmers 1. There is sufficient capacity on the network to supply the 200kVA for this new development.

The method of supplying the electricity will be determined once details are made available. The formal quote process will confirm spare capacity available and a proposal to supply such development. Execution of making supply available will only be initiated on acceptance of a formal quote. The date to make a point of supply available will be confirmed during this process.

Please direct a formal application to our Group Customer Services for a quote:

Distribution  
Eskom  
PO Box 2100  
Bellville, 7535

Yours faithfully



**Sarita van Coller**  
**KEY CUSTOMER RELATIONS MANAGER**

Distribution Retail Operations  
Key Account Relations Western Cape Operating Unit  
60 Voortrekker Road Bellville 7530  
PO Box 2100 Bellville 7535  
Tel +27 21 915 2371 Fax +27 86 607 4317 [www.eskom.co.za](http://www.eskom.co.za)

**Eskom Holdings SOC Ltd Reg No 2002/015527/3**