water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

WATER USE LICENCE APPLICATION SUMMARY REPORT

WISTERIA BOERDERY ON PORTION 40 OF 158 KLEINFONTEIN FARM, EASTERN CAPE PROVINCE (L90B)

REFERENCE: WU21139 (MZIMVUBU TSITSIKAMMA)

NAME OF APPLICANT

WISTERIA BOERDERY (PTY) LTD

Prepared by:	**Prepared for:**
Greenmined Environmental Tel: 076 792 6327 Email: Murchellin.S@greenmined.co.za	Wisteria Boerdery (Pty) Ltd Contact person: Deleen Du Preez Postal Address: Po box 254 Cell phone number: 083 235 6587 Office number:041 000 1515 E-mail address: deleen@wisteriafarm.co.za

EAP Company Details	Report Writer	Signature	Date
Greenmined Environmental Environmental Assessment Practitioner Number is 2021/4203	Mrs Murchellin Saal		November 2022

1. Applicant details

Name of applicant: Wisteria Boerdery

Postal address:
Po box 254
Cell phone number: 083 6533358
Office number:041 000 1515
E-mail address: Margrey@wisteriafarm.co.za

2. Person submitting application

Greenmined Environmental (Pty) Ltd was appointed by Wisteria Boerdery (Pty) Ltd to conduct a Water Use Authorisation Application (WUAA) process and obtain an authorisation for the existing farm water uses, Portion 40 of 158 Kleinfontein Farm, Eastern Cape Province.

The EAP (Mrs Murchellin Saal) that compiled the Water Use Licence Report is registered with the Environmental Assessment Practitioners Association of South Africa (EAPASA). The Registered Environmental Assessment Practitioner
Number 2021/4203

Murchellin Saal – Number 2021/4203

3. Background and purpose

3.1 Background

The applicant Wisteria Boerdery (Pty) Ltd, submitted a water use licence application for abstracting water from boreholes and storing in dams less than 50 000m³, water will be used for irrigation purposes on the following properties:

Wisteria 3 Reference: WU21139 (L90B)
Portion 40 of 158 Kleinfontein Farm, Eastern Cape Province.

- DW760 Section 21 (a): Taking water from a water recourse (1 x borehole)
- DW762 Section 21 (b): Storing Water (1 x Dams 20000m³)

As such, a Water Use Authorisation Application (WUAA) is required in accordance with the National Water Act (NWA), 1998 (Act No. 36 of 1998) in terms of Section 21. This document forms part of the WUAA.

The water uses which will be applied for in terms of Section 21 of the NWA (Act 36 of 1998) include:

- DW760 Section 21 (a): Taking water from a water recourse (1 x borehole)
- DW762 Section 21 (b): Storing Water (1 x Dams 20000m³)

Need and Desirability for the Project

Wisteria Boerdery (Pty) Ltd provides development and employment opportunities to the surrounding area. Thus, the authorising of the various water uses being applied for on Kleinfontien Farm will have a beneficial impact on the surrounding environment and people through the provision of employment opportunities and accommodation. Provided the mitigation measures are implemented there is likely to minimal impact on surrounding water users.

If approved, the farms will continue to provide work to local residents. It is proposed that the farms will contribute to the local economy of the area, both directly and through the multiplier effect that its presence will create. Equipment and supplies will be purchased locally, and wages will be spent at local businesses, generating both jobs and income in the area. Kleinfontein Farm will provide a

benefit to the general society in that it will contribute to the agricultural economy. Citrus farms contribute to food security in South Africa.

3.2 Location of water uses

Wisteria 3 Reference: WU21139 (L90B)

Figure: Kleinrivier Farm (Borehole and dam)

The water use will take place on Portion 40 of 158 Klein Rivier Farm, HUMANSDORP RD, Eastern Cape Province

- Borehole: 33°48'59.68"S; 24°53'50.11"E
- Kleinriver Dam: 33°48'50.46"S; 24°53'51.17"E

Table 1: Property details

Property description	Title Deed number	Owner
Portion 40 of 158 Kleinfontein Farm, HUMANSDORP RD, Eastern Cape Province	T9081/2020	Wisteria Landgoed (Pty) Ltd

4. Administrative documents and technical reports submitted by applicants

4.1 Administrative documents

4.1.1 Title Deeds
4.1.2 Certified Identity Document
4.1.3 Company Registration documents
4.1.4 Resolution document
4.1.5 Proof of payment
4.1.6 Equity and Gender Status
4.1.7 Proof of Listed water – Gamtoos

4.2 Reports and other technical documents

Table 2: Technical Documents

Number	Report Title	Compiled by	Date of report
1	Proof of Public Participation Report	Greenmined Environmental	November 2022
	Proof of Advert		16 May 2021
	Notification of Specialist studies		November 2022
2	Section 27 Motivation	Greenmined Environmental	November 2022
3	Letter of Support from GIB	Gamtoos Irrigation Board	November 2021
4	Proof of Existing Authorisation	Greenmined Environmental	November 2022
5	Soil Suitability Report- DRDAR	DRDAR	November 2022
6	EA	Greenmined Environmental	November 2022
7	Proof of no Land claim	Greenmined Environmental	November 2021
8	Permit to cultivating virgin land	Greenmined Environmental	November 2021
9	Layout of Reticulation of water	Greenmined Environmental	November 2022
10	Project Description	Greenmined Environmental	November 2022
11	Geohydrological Report	DHS Groundwater Consulting Services	October 2022
12	Proof of Listed water - Gamtoos	Greenmined Environmental	October 2021
13	Dam Designs	Greenmined Environmental	August 2022
14	Borehole Tests	DHS Groundwater Consulting Services	May 2022
15	Water Quality Report	DHS Groundwater Consulting Services	April 2022
16	Supporting letter from Kouga Municipality	Kouga Municipality	November 2022
17	Notification of Specialist studies	Greenmined Environmental	November 2022
18	WULA summary report	Greenmined Environmental	November 2022

5 Project Description

Table 3: Project Description

Project Description -Wisteria 3 - Reference: WU21139 (L90B) Portion 40 of 158 Klein Rivier Farm, Eastern Cape Province. • DW760 Section 21 (a): Taking water from a water recourse (1 x borehole) • DW762 Section 21 (b): Storing Water (1 x Dams 2000m³)	
Hectares of land irrigated	60ha
Method of irrigation	Drip
Type of crop planted	Citrus
Water demand require	Probes regulate water demand
Source of water supply	Borehole and Dam Scheme
Fertilizer used	According to Soil analysis, the specific fertiliser will be used.

6 Water Uses applied for

The application includes the following water uses.

Table 4: Water Use Applied for

Water use(s) activities	Purpose	Capacity/ Volume (m^3, tonnes and/or m^3/annum)/ dimension	Property Description	Co-ordinates
Section 21(a)				
DW760 Section 21 (a): Taking water from a water recourse (1 x borehole)	Irrigation of soft citrus fruit	216000m³	Portion 40 of 158 Kleinfontein Farm, HUMANSDORP RD, Eastern Cape Province	33°48'59.68"S 24°53'50.11"E
DW762 Section 21 (b): Storing Water (1 x Dams 20000m³)	Irrigation of soft citrus fruit	2000m³ storage capacity	Portion 40 of 158 Kleinfontein Farm, HUMANSDORP RD, Eastern Cape Province	33 48'50.46"S 24 53'51.17"E

7 Impacts and mitigation measures

Table 5: Summary of impacts and mitigation measures

Water Use activity	Possible causes of the impacts of the activities Impacts to the water resources	Possible Impacts to the water resource and other water users	Mitigation Measures
DW760 Section 21 (a): Taking water from	Over abstraction of groundwater from boreholes is likely to lead to depletion of the	Over abstraction of groundwater from boreholes is likely to	(1) Yield testing of boreholes as per "SANS 10299-4:2003" standards. Do not

a water recourse (1 x borehole)	water levels in the area over time. This can cause damage to the aquifer and might impact on neighbouring and registered groundwater users that are reliant on the same source of water. Reduced baseflow to streams/rivers and groundwater dependent eco systems (wetlands).	lead to depletion of the water levels in the area over time. This can cause damage to the aquifer and might impact on neighbouring and registered groundwater users that are reliant on the same source of water. Reduced baseflow to streams/rivers and groundwater	exceed calculated sustainable yield of boreholes. (2) Groundwater level monitoring - reduce abstraction in the event of anomolous lowering of groundwater levels. (3) Take "Ecological Water Reserve" into account during water balance.
DW762 Section 21 (b): Storing Water	Listed water received from Gamtoos Irrigation Board.		

8 Water demand and water supply

Water demand

The calculated recommended groundwater available for abstraction for the site is 0.78 Mm_3/annum. DWS categorises water use licence applications in three categories (presented in Appendix 2) based on the amount of recharge that is used by the applicant in relation to the specified property:

- • Category A: Small scale abstractions (<60% recharge)
- • Category B: Medium scale abstractions (60-100% recharge)
- • Category C: Large scale abstractions (>100% recharge)

Table 6 : Most salient parameters relevant to catchment L90A.

Area km^2	Protected Area (km^2)[18]	GA $(m^3/ha/a)$[19]	Recharge (Mm^3/a)[14]	Population[20]	Basic Human Need (Mm^3/a)	EWR Baseflow (Mm^3/a) [5]	Reserve (Mm^3/a)[5]	Current use (Mm^3/a)[18]
365.81	0	275	13.691	11 552	0.105	2.857	2.962	0.036

Water supply

Table 7 : Water Balance within the Groundwater Recourse Unit.

Area	Surface Area (ha)	Groundwater Recharge to GRU using recharge figure of 13120300 m^3/a
GRU	955	358.66 $m^3/ha/a$
Recharge to GRU		342524.439 m^3/a 938 m^3/day 10.9 l/second
Registered Use (WARMS)		36188.0 m^3/a
RESERVE	Basic Human Need	1168.0 m^3/a
	Base Flow (EWR)	2511180 m^3/a 68.6 $m^3/ha/a$ 65557.9919 m^3/a
Groundwater available for abstraction		239610 m^3/a 0.240 Mm^3/a 656467 l/day 7.6 l/second
Application (WULA)		0.216 Mm^3/a
WULA as % of Groundwater available in GRU		90.15 %

Based on the water balance results, it is recommended to apply for an allocation of 0.216 Mm3/annum which places the application in Category B (medium scale abstractions 60-100% recharge to the GRU) see section 8.2. in Groundwater report, The tested borehole will be able to supply 100% of the applied for volume.

9 Public participation

Registration and commenting forms were sent via email to all Interested and Affected Parties on the 19th of May 2022. Registration forms were also placed on the Greenmined Environmental Website, www.greenmined.com. Site notifications were placed on the Kleinfontein Farm and Hankey Post office on 19 May 2022. Advertisement were placed in the Kouga Express on the 19th of May 2022. An additional email notifying the Registered I&AP's of the specialist studies are available on Greenmined website, was sent on the 4th of November 2022.

Table 8: Outcome of the public participation

Person who commented	Comments (support or object)	Reasons for objection	Applicant's response to the objection
No comments received			

10. Other authorisations applicable to the activity

10.1N/A

11. Section 27 (1)

The requirements contained in Section 27(1) of the National Water Act, 1998 (Act 36 of 1998) have been considered and are discussed further below.

a) Existing lawful water uses

N/A

b) Need to redress the results of past racial and gender discrimination

Wisteria Boerdery (Pty) Ltd is wholly owned by Mr.Rayno Du Preez. Where possible, the procurement policies and procedures implemented by Wisteria Boerdery (Pty) Ltd will accommodate the six (6) elements associated with Broad-based Black Economic Empowerment (B-BEE), namely, management control, employment equity, skills development, preferential procurement, enterprise development and socioeconomic development.

c) Efficient and beneficial use of water in the public interest

Wisteria Boerdery (Pty) Ltd provides development and employment opportunities to the surrounding area. Thus, the authorising of the various water uses being applied for on Scott and Wisteria Farm will have a beneficial impact on the surrounding environment and people through the provision of employment opportunities and accommodation. Provided the mitigation measures are implemented there is likely to minimal impact on surrounding water users.

d) Socio-economic impact –

i) Of water use or uses if authorised:

If approved, the farms will continue to provide work to local residents. It is proposed that the farms will contribute to the local economy of the area, both directly and through the multiplier effect that its presence will create. Equipment and supplies will be purchased locally, and wages will be spent at local businesses, generating both jobs and income in the area. Both Scott and Wisteria farm will provide a benefit to the general society in that it will contribute to the agricultural economy. Citrus farms contribute to food security in South Africa

ii) Of the failure to authorise water use or uses:

Failure to authorise the water use will impend Scott and Wisteria Farm capacity to:
• Preserve jobs; and
•Have a positive impact on the local communities through economic development and sustainable social initiatives.

Wisteria Boerdery (Pty) Ltd currently employs 84 people from the local surrounding area

Wisteria and Scott farms are also currently employing 43 employees from the local surrounding area All of the above employees are based on the farming operations, which is directly linked to the availability of water

e) Any catchment management strategy applicable to the relevant water resource

Kleinfontein Farm are situated in the Mzimvubu sub-water management area, and Quaternary Catchment L90B.

f) Likely effect of the water use to be authorized on the water resource and on other water users.

N/A

g) Class and the resource quality objectives of the water resource

N/A – Downstream water users are mostly farmers

h) Investments already made and to be made by the water user in respect of the water use in question

Approximately R 3 045 194.50 has already been invested in this project in terms of land acquisition, environmental processes, and research – this includes the boreholes, dams, irrigation equipment, water testing, etc.

i) Strategic importance of the water use to be authorised

The approved water application will enable Wisteria Boerdery (Pty) Ltd to produce citrus to the local industry which will contribute to the local economy of the area, both directly and through the multiplier effect that its presence will create. Equipment and supplies will be purchased locally, and wages will be spent at local businesses, generating both jobs and income in the area.
Creating and maintaining jobs;
Developing its people, and in so doing contributing to the transformation of the industry's leadership and skills base; and
By having a positive impact on the local communities through economic development and sustainable social initiatives.

j) The quality of water in the water resource which may be required for the Reserve and for meeting international obligations

N/A

k) Probable duration of any undertaking for which a water use is to be authorised

The Wisteria Boerdery Pty Ltd farms are private undertaking and as such is expected to last for the lifetime of the applicant and beyond (greater than 20 years).

10 Declaration by the applicant with signature confirming that the information submitted is correct

[END OF WATER USE LICENCE APPLICATION SUMMARY]