water & sanitation
Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

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WATER USE LICENCE APPLICATION SUMMARY

WUL Ref. WU41806

NAME OF APPLICANT:

Uniqon Developers (Pty) Ltd

Compiled by:

Virdus Works Environmental (Pty) Ltd
Per Dupré Lombaard (EAPASA 2019/304)

Signature:……
Date: 28 November 2025

1. Applicant details

Name of applicant: Uniqon Developers (Pty) Ltd
Postal address: 17 Catherine Road, Shere, Pretoria East, 0084
Cell phone number: +27 83 [redacted]9
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E-mail address: e[redacted]@u[redacted].c[redacted]

2. Person submitting application

Dupré Lombaard, Registered Environmental Assessment Practitioner (EAPASA 2019/304), since May 2019.

3. Background and purpose

Uniqon Developers have acquired Portion 28 of the Farm Welmoed Estate No. 468, Stellenbosch Division for urban development purposes.

The proposed development of Welmoed Village on Portion 28 with an area of 45,5 ha that is inside of the delineated urban edge of Lynedoch, but outside of the Lynedoch Village urban area is proposed as a phased development, by rezoning of the property to a subdivisional area that provides for mixed uses, including, but not limited to:

- multi-unit housing zone for 884 medium and high-density residential units, inclusive of a retirement village, blocks of flats, group housing, townhouses, inclusionary housing, private roads, and renewable energy structures;
- private open space zone for conservation of the natural features, access and circulation, and open spaces;
- transport facilities zone for transport purposes (goods and passengers);
- public roads and parking zone for public roads and streets;
- local business zone with a small retail outlet, restaurant, medical consulting rooms, and offices;
- community zone for the establishment of a place of assembly, place of worship, day care facilities, place of education, indoor and other sporting, and related facilities; and
- utility services zone for the accommodation of private infrastructure and utility services as required for the proposed development.

The designated urban development area is not serviced, and Lynedoch Village relies mostly on own services, e.g., on-site wetland waste water treatment, and the systems are not capable of accommodating the additional development. The Municipality has accordingly required the installation of external services to connect the proposed development to the existing municipal networks. The required external services infrastructure for development of Portion 28 consists amongst others of the following:

- A bulk potable water line of approximately 2,3km with a capacity of 20,47 k/d and peak flow rate of 17,415 l/s (fire flow requirement 25 l/s) in a trench approximately 1,2 – 1,8m deep and 1m wide in a 3m wide servitude; and
- A rising sewer main (pump line) of approximately 4km with peak wet weather flow 14,019 l/s in a 160mm Class 34 uPVC pipes in a trench approximately 1,0 - 12 deep and 1m wide in a 3m wide servitude.

A water use license has been issued for the development of Portion 28, under reference WU34809 and file 27/2/2/G822/62/3. It is therefore only the external services which cross water bodies which need to be authorised.

The application herewith is for permission in terms of the National Water Act, 1998, Act 36 of 1998 to:

- impede the flow of water in a watercourse (Section 21(c)) (permanent obstruction or hindrance to the flow of water into watercourse by structures built either fully or partially in or across a watercourse including structures for routing water supply and other pipelines); and

- alter the bed, banks, course or characteristics of a watercourse (Section 21(i) (permanent alteration of a watercourse for structures for routing water supply and other pipelines).

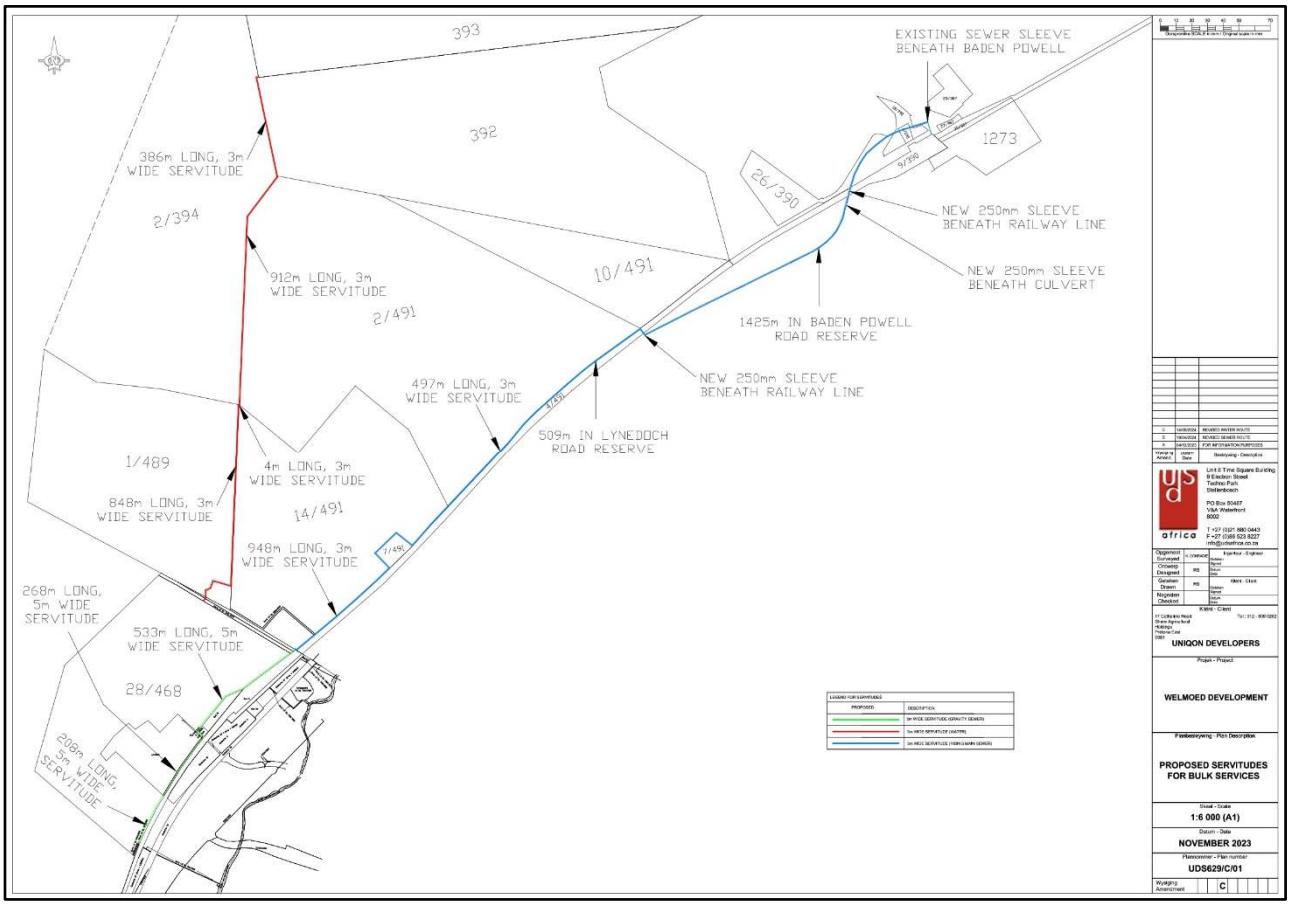
4. Location of water uses

The Welmoed Village development and its external services infrastructure are located in the Stellenbosch Municipality and Magisterial District, in the Western Cape Province. The development will occur around Lynedoch Village, while the external services run in a northerly direction towards Vlottenburg and forms part of the G22H Quaternary Catchment, in the Breede-Olifants Water Management Area. The water use occurs on:

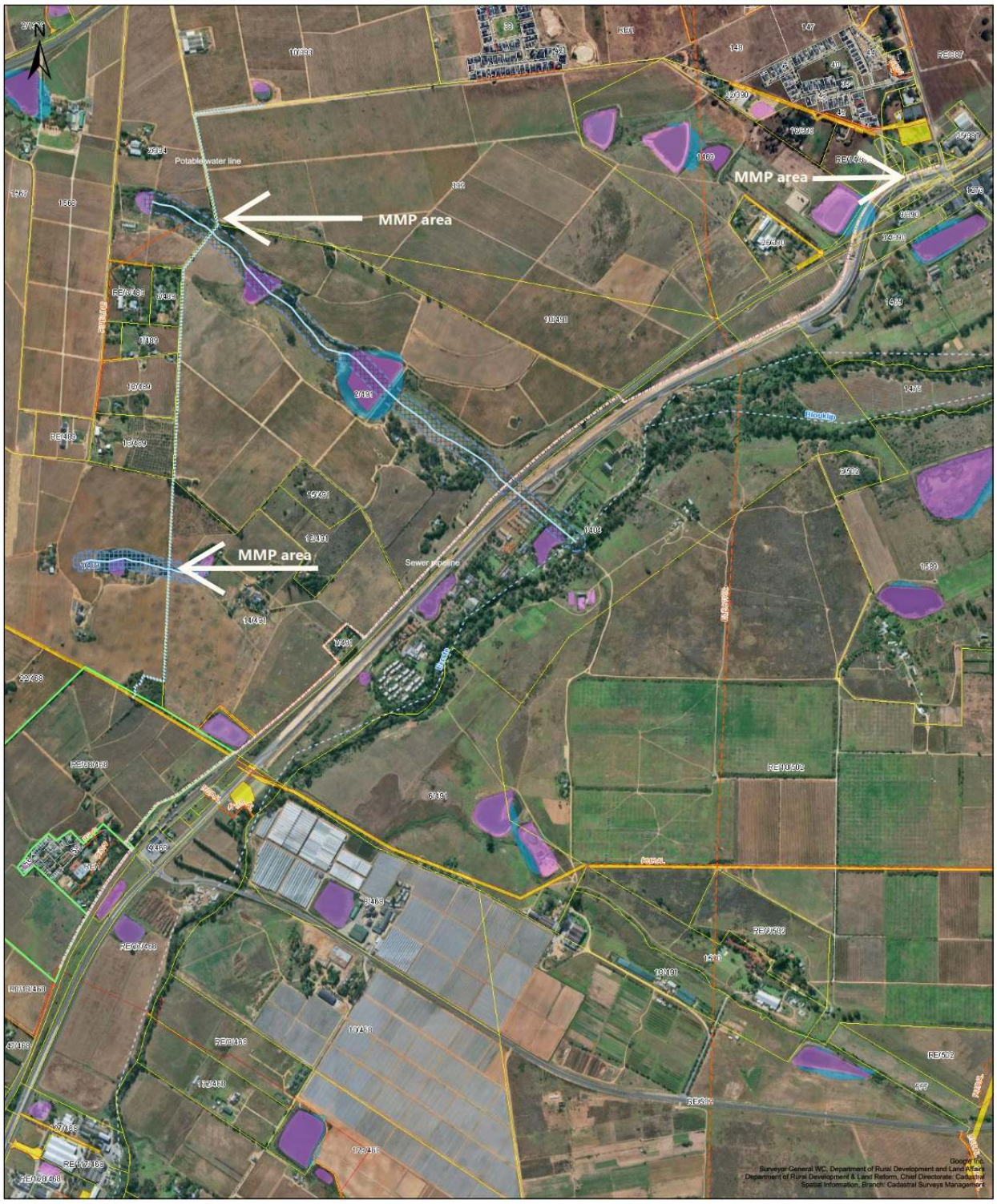
- Water: Ptn 2 of Farm 491, Stellenbosch Division;
- Water: Ptn 1 of Farm 489, Stellenbosch Division; and
- Sewer: Inside the Baden Powell road reserve on Ptn 18 of Farm 390, Stellenbosch Division.

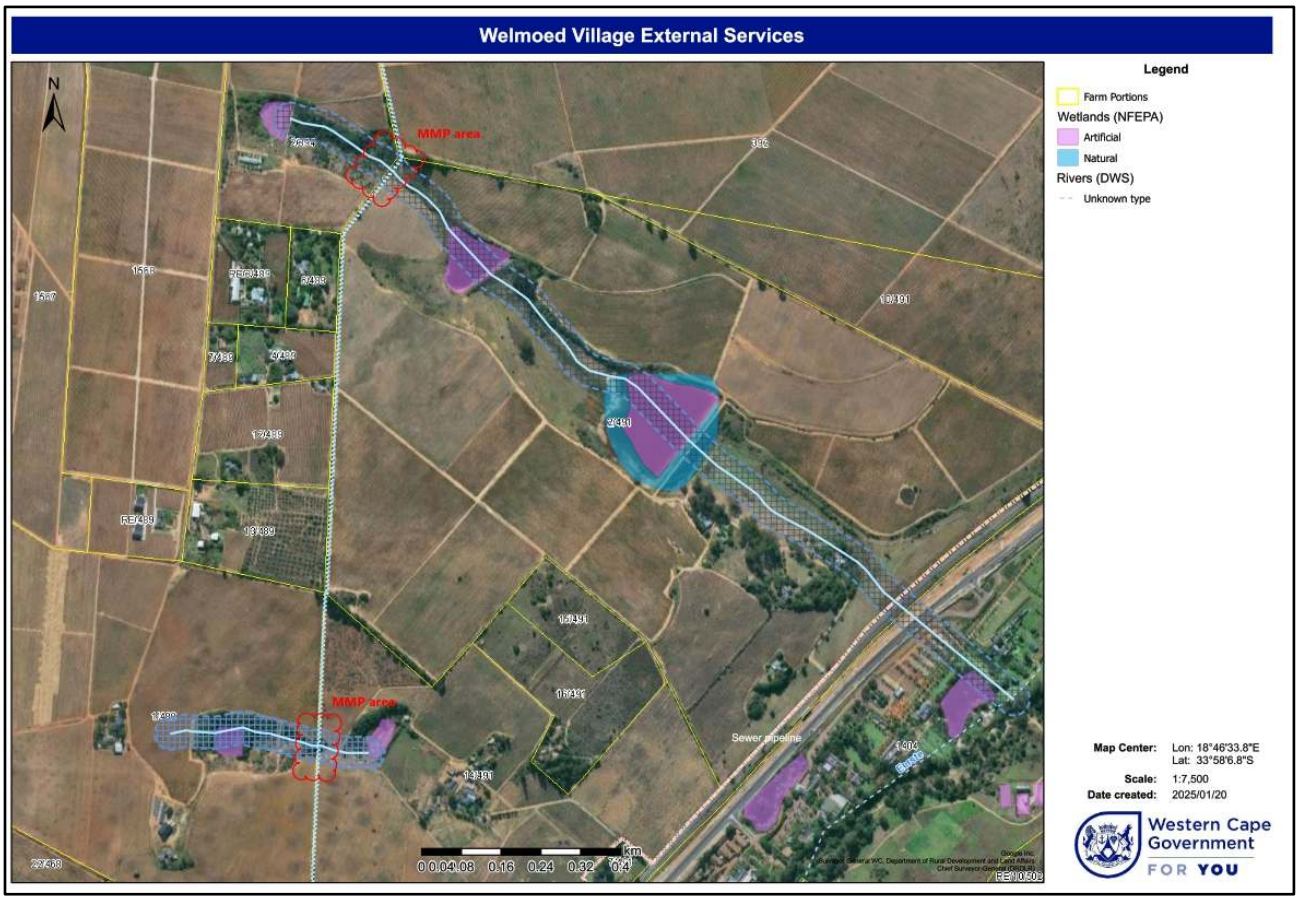
Table 1: Property details

Sewer	Sg 21-Digit Code	Title Deed / Owner	Coordinates
Ptn 18 Farm Vlottenburg Annex 390	C06700000000039000018	T17126/2010 Vredenheim (Pty) Ltd Reg. No. 1995/007371/07	S 33° 57' 40.738" E 18° 47' 56.212"
Water:			
Ptn 1 Farm Lyndoch 489	C06700000000048900001	T14764/2022 Solid Spark Investments (Pty) Ltd Reg. No. 2021/918001/07	S 33° 58' 24.524" E 18° 46' 17.367"
Ptn 2 Farm Spier 491	C06700000000049100002	T70401/2017 Sevilo Farms (Previously Stone Pine Wines) (Pty) Ltd Reg. No. 1990/007072/07	S 33° 57' 47.048" E 18° 46' 23.005"
Ptn 2 Farm Schuldpad Vlei 394	C06700000000039400002	80802/1995 Nidri Farms Trust No It 1225/95	S 33° 57' 47.048" E 18° 46' 23.005"

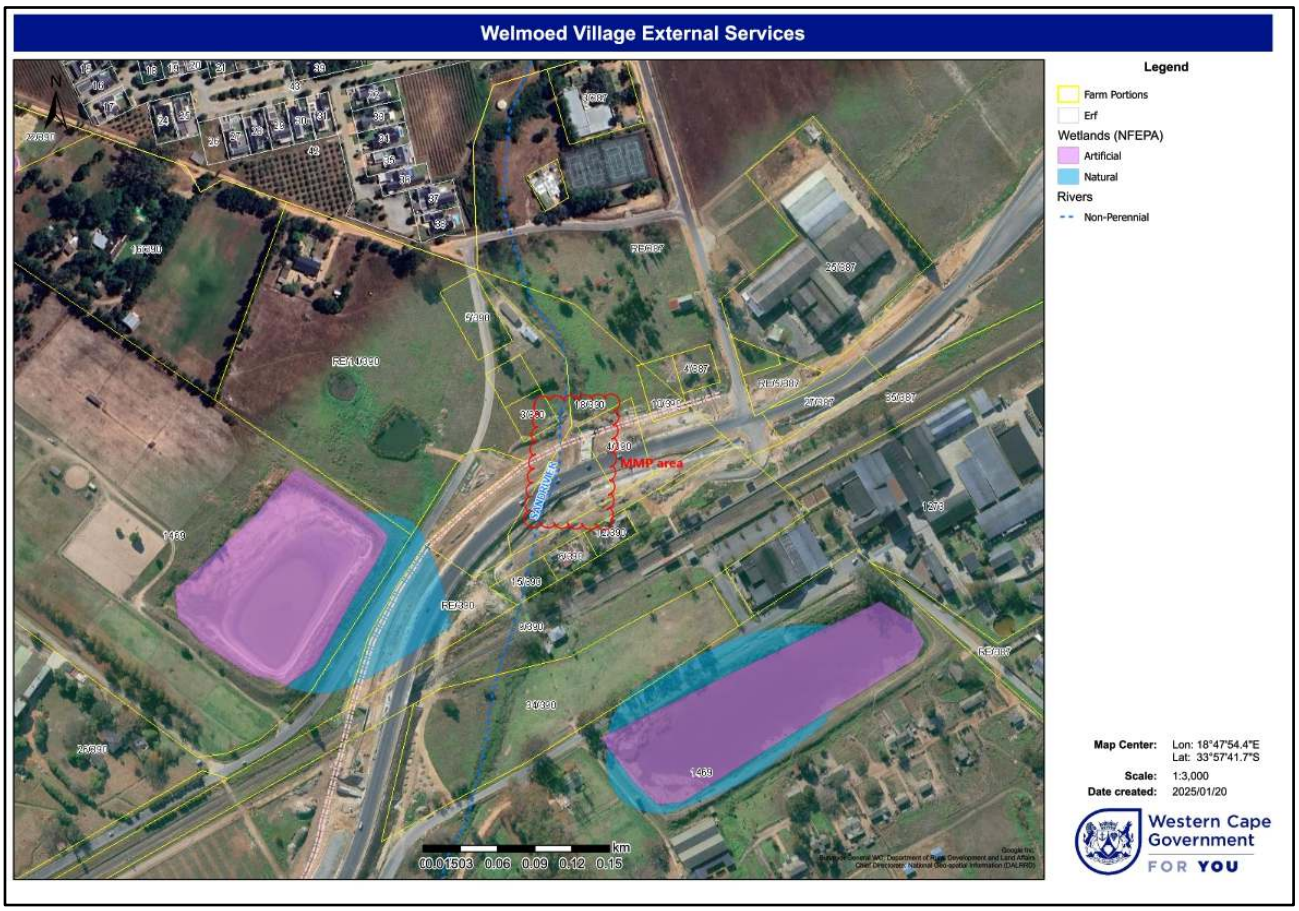


Welmoed Village External Services





Red cloud rectangles in the satellite images above and below show the stream crossing areas



5. Administrative documents and technical reports submitted by applicants

5.1 Administrative documents

5.1.1 Section 27 Motivation;
5.1.2 Proof of Payment of Water Use Licence Application Fee;
5.1.3 Applicant Company Registration Certificate;
5.1.4 Copy of applicant Director ID;
5.1.5 Title Deeds of subject properties;
5.1.6 Land Owner consents for subject properties; and
5.1.7 Power of Attorney to submit application behalf of Applicant.

5.2 Reports and other technical documents

5.2.1 Detailed Freshwater Ecological Assessment, Enviroswift, 22 March 2024;
5.2.2 Draft Maintenance Management Plan, Virdus Works Environmental, March 2025; and
5.2.3 Engineering designs.

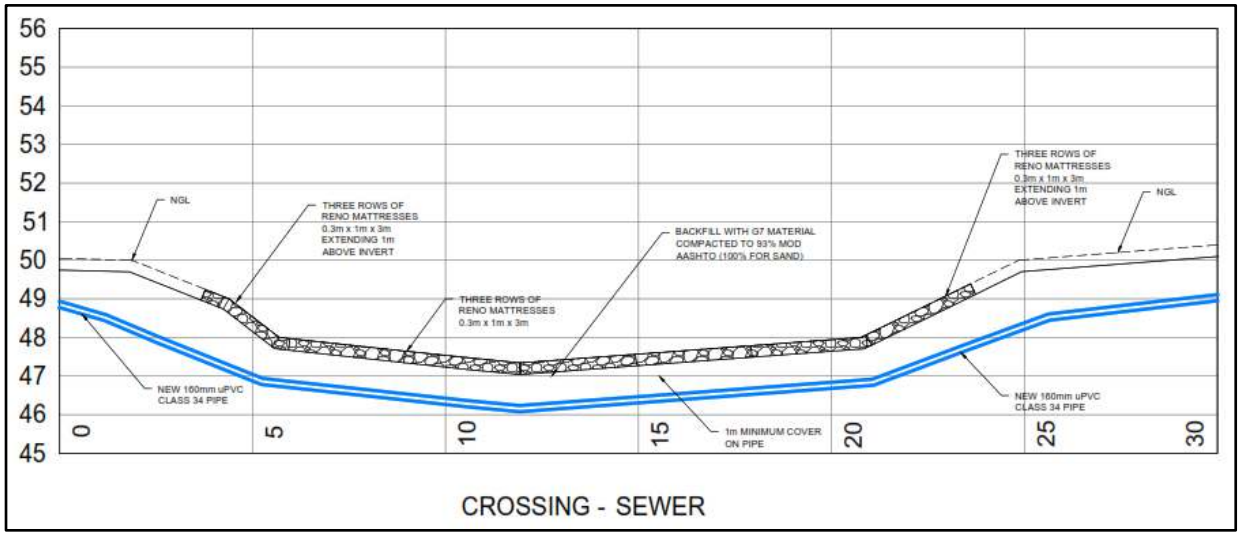
6. Project Description

Uniqon Developers (Pty) Ltd propose to develop an urban node comprising a mix of land uses on Portion 28 of the Farm Welmoed Estate No. 468, Stellenbosch. While the development of the urban node itself will not pose a risk to any freshwater ecosystems, the external services and in particular a new water supply pipeline and a new sewerage pipeline, would cross watercourses which would be impacted.

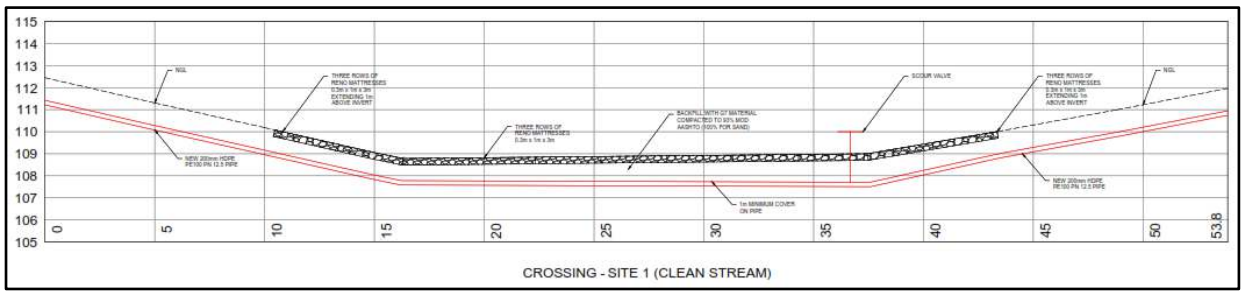
There are three direct, open trench crossings envisaged, namely for the two water courses, for the potable water pipelines, and one for the sewer pipe at the existing bridge / culvert through the Sanddrift water course, along Baden Powell Drive. At the Baden Powell road culvert, the stream is channelised to under the railway line.

7. Methods statement (only for c and i activity)

The proposed sewerage pipeline crossing of the Sand River is located in the road reserve of the R310 ('Baden Powell Drive'). This area has been subjected to extensive transformation due to the upgrading of the R310 with the construction of a culvert / bridge over the stream course and canalization of the stream. The sewer line will be trenched through the artificially created stream channel to a depth of 1 metre below the surface and the trenched area will then be protected with reno-mattresses to prevent bed erosion over the pipe.

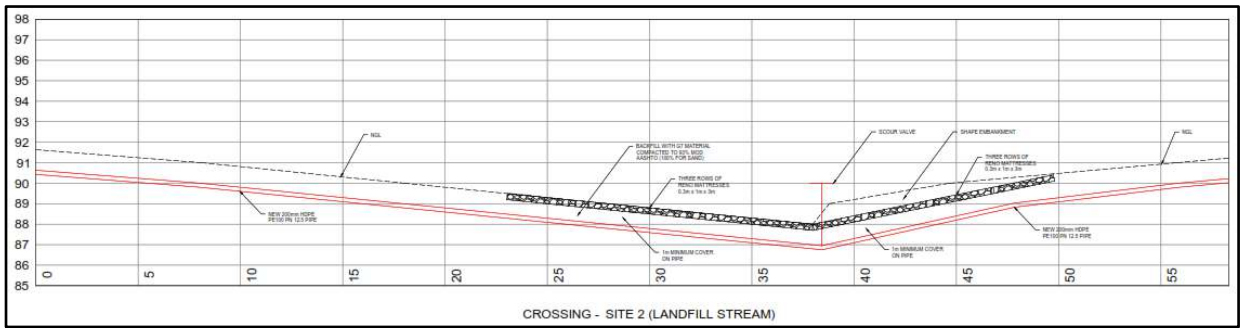


The so-called 'clean' watercourse on Ptn 2 Farm Schuldpad Vlei 394 is also a historic vehicular crossing point that is severely eroded. It has shallow banks and limited vegetation. The pipe line will be trenched through the stream to a depth of 1 metre below the surface and the trenched area will then be protected with reno-mattresses to prevent bed erosion over the pipe.



CROSSING - SITE 1 (CLEAN STREAM)

The (landfill) watercourse at Site 2 has recently been reshaped and partially rehabilitated, although solid waste deposits are still evident. The watercourse has been impounded at its source approximately 150m upstream from the proposed crossing point and ends in a second impoundment approximately 150m downstream from the proposed crossing point. The portion upstream from the proposed crossing point is significantly less impacted than the lower portion which exhibits evidence of significant earthworks and vegetation removal, presumably as a result of the rehabilitation efforts. The area surrounding the proposed crossing point is devoid of vegetation while the area upstream of the proposed crossing point, and surrounding the upstream impoundment, is characterised by a stand of relatively dense invasive vegetation. The pipe line will be trenched through the stream to a depth of 1 metre below the surface and the trenched area will then be protected with reno-mattresses to prevent bed erosion over the pipe.



CROSSING - SITE 2 (LANDFILL STREAM)

8. Stormwater Management Plan

Prior to commencement of construction activities through stream courses, the outer boundary of the required servitude line must be surveyed and demarcated in consultation with the Environmental Control Officer to ensure that clearing and construction activities are restricted to the line required for the approved installation and that the watercourse is not at risk due to extensive clearing of vegetation that stabilises the banks or beds.

Avoid negative impacts by undertaking the watercourse crossings (vegetation clearing and trench excavations) during the dry summer season.

Areas cleared for construction must be revegetated with suitable indigenous plants upon completion of the backfilling of the trenches.

9. Rehabilitation Plan

Alien vegetation management and watercourse rehabilitation must occur at least annually in late winter or early spring for the first three years after construction to ensure that the beds and banks are revegetated b indigenous vegetation that can regrow naturally or can be planted to speed up regrowth.

The applicant must ensure that at least three annual inspections of the external services construction sites are undertaken, which inspections must include alien removal, erosion control, and further introduction of appropriate indigenous vegetation in late winter or early spring following the construction. An inspection report must be prepared and submitted to the EAP responsible for the audit and the relevant authorities in terms of the approved water use licence.

The inspection must also ensure that the reno mattresses are stable and not undercut or scoured along the banks by high runoff or other causes.

10. Water Uses applied for

Application is made for the installation of pipes through the three stream courses on the properties at the locations as detailed above in paragraph 4. Due to the installation of the pipes and the overlaying of the reno mattresses to protect the backfilled pipe trenches there are likely permanent effects on the stream courses and hence application is made for:

- impeding the flow of water in a watercourse in terms of Section 21(c); and
- altering the bed, banks, course or characteristics of a watercourse in terms of Section 21(i).

11. Impacts and mitigation measures

The potential impacts and mitigation measures that are expected from the proposed activities are presented in Table 2.

Table 2: 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
21(c) & (i)	Trenching through banks and beds.	Soil destabilisation leading to erosion.	Trench width to be limited to the minimum for the installation of the pipes. Diggers and machines to move over rather along the trench line to limit area of effect. Phased trenching must be done to first scrape 300 – 400mm of topsoil that must be stockpiled on site for covering backfill under and/or over the reno mattresses. Deeper lying clay material that cannot be used for backfilling must be spoiled in an appropriate pre-approved location.
	Removal of naturally occurring vegetation.	Loss of habitat.	Trench width to be limited to the minimum for the installation of the pipes. Diggers and machines to move over rather along the trench line to limit area of effect. Stockpiled topsoil to be used for covering backfilled trenches to facilitate natural regrowth.
	Altering the fluvial characteristics of the streams by placing reno mattresses.	Increasing the risk of bed and bank erosion.	Reno mattresses to be installed below the maximum expected scour depth with a filter fabric underneath to prevent soil migration. The base must be properly compacted, stable, and level, and the top edge must be anchored into the bank to prevent flanking.
	Use of mechanical equipment containing pollutants.	Polluting the water resource and affecting the aquatic habitat.	Construction to occur during low flow or dry summer periods. Construction activities must not have any significant impact on the ecosystem. All materials that are potentially harmful to the aquatic ecosystem must be stored at least 40m away from a watercourse in appropriately bunded space and no vehicles or equipment must be washed or refuelled within the 40m buffer area.

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
			Where hazardous substances and fuels (such as diesel, oil, lubricant, detergent, chemicals, paint, cleaning agents) are to be stored on site for construction purposes, a designated and appropriately enclosed area must be set aside for it in the contractor's yard.

12. Water demand and water supply

The project does not require any water and does not supply water.

13. Public participation

The public participation process done in terms of Section 41(4) of the National Water Act, 1998, Act 36 of 1998 led to the following outcomes, summarised in Table 3 below.

Table 3: Outcome of the public participation

Person who commented	Comments (support or object)	Reasons for objection	Applicant's response to the objection

14. Other authorisations applicable to the activity

14.1 The National Environmental Management Act, 1998, Act 107 of 1998) and the Environmental Impact Assessment Regulations: activities 12 (The development of (ii) infrastructure or structures with a physical footprint of 100 square metres or more; (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse;) and 19 (The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse;) by the construction of the external (bulk) infrastructure pipe lines (sewer and water) across the identified streams and the 32m buffer areas.

14.2 The National Heritage Resources Act, 1999, Act 25 of 1999: Section 38(1)(a) for the construction of a pipeline or other similar linear development exceeding 300m in length.

15. Section 27(1)

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

15.1 Existing lawful water uses

Uniqon, through its appointed consultants, is preparing the required land development, environmental, heritage, and other authorisation applications. The applications are made in terms of the Stellenbosch Municipality: Bylaw on Municipal Land Use Planning, 2023, the National Environmental Management Act, 1998, Act 107 of 1998, the Heritage Resources Act, 1999, Act 25 of 1999, and related legislation for the development of an urban settlement on the above referred Portion 28 of Farm 468, inclusive of the external services infrastructure required for the development.

As part of the application process, the engineering specialists have consulted with the Stellenbosch Municipality Directorate: Infrastructure Services, which indicated that the proposed development must be connected to the municipal infrastructure as determined in the relevant master plans.

No on-site waste water treatment facilities would be accepted by the Municipality, and the potable water supply has to provide for sufficient pressure to the development on the higher lying parts of the subject property (see Annexure J: GLS Consulting (Pty) Ltd letter / report Development of Portion 28 of Farm 468 (Welmoed Development), Stellenbosch: Capacity Analysis of the Bulk Water & Sewer Services, dated 28 March 2024). Connections to the infrastructure as per the master plans require the installation of external services, across public and private properties owned by parties other than the Municipality or the developer, inclusive as the water uses applied for with this application.

The water uses have no effect on any up or downstream users.

15.2 Need to redress the results of past racial and gender discrimination

Redress does not play a role on the installation of external services essential to the provision of municipal infrastructure services to a community. External services are defined as follows in the relevant legislation:

- Stellenbosch Municipality: By-law on Municipal Land Use Planning, 2023: "external engineering service" means an engineering service outside the boundaries of a land area referred to in an application and that is necessary for the utilisation and development of the land.
- National Environmental Management Act, 1998, Act 107 of 1998, Amendment of the Environmental Impact Assessment Regulations Listing Notice 1 of 2014, GN 327 of 07 April 2017: "linear activity" means an activity that is arranged in or extending along one or more properties and which affects the environment or any aspect of the environment along the course of the activity, and includes railways, roads, canals, channels, funiculars, pipelines, conveyor belts, cableways, power lines, fences, runways, aircraft landing strips, firebreaks, and telecommunication lines.
- The Heritage Resources Act, 1999, Act 25 of 1999 does not define linear activities. It only refers thereto in the listing of activities requiring a permit.

Section 152 of the Constitution of the Republic of South Africa sets out the objects of local government as follows: *"(1) The objects of local government are (a) To provide democratic and accountable government for local communities; (b) To ensure the provision of services to communities in sustainable manner; (c) To promote social and economic development; (d) To promote a safe and healthy environment; and (e) … . (2) A municipality must strive, within its financial and administrative capacity, to achieve the objects set out in subsection (1)."*

The authority of municipalities is set out in Section 156 of the Constitution: "*(1) A municipality has executive authority in respect of and has the right to administer – (a) the local government matters listed in Part B of Schedule 4 and Part B of Schedule 5; and (b) any other matter assigned to it by national or provincial legislation.*" The local government matters listed in Part B of Schedule 4 include the following: Electricity and gas reticulation; and Water and sanitation services limited to potable water supply systems and domestic waste-water and sewage disposal systems.

Sections 27(1)(a) and (2) of the Constitution provide that everyone has the right to have access to sufficient water; and that the state (i.e., also municipalities) must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of that right.

The Local Government: Municipal Systems Act, 2000, Act 32 of 2000 deals in Chapter 3 with municipal functions and powers. Section 8 is a "General empowerment" provision that determines: "*(1) A municipality has all the functions and powers conferred by or assigned to it in terms of the Constitution and must exercise them subject to Chapter 5 of the Municipal Structures Act. (2) A municipality has the right to do anything reasonably necessary for, or incidental to, the effective performance of its functions and the exercise of its powers.*" Section 4 sets out the rights and duties of the council of a municipality. Section 4(2) provides as follows: "*The council of a municipality, within the municipality's financial and administrative capacity and having regard to practical considerations, has the duty to – (a) exercise the municipality's executive and legislative authority and use the resources of the municipality in the best interests of the local community; …. (d) strive to ensure that municipal services are provided to the local community in a financially and environmentally sustainable manner; … (f) give members of the local community equitable access to the municipal services to which they are entitled; …. (i) contribute, together with other organs of state, to the progressive realisation of the fundamental rights contained in ss 24 [environment], 25 [property, including tenure security], 26 [housing], 27 [healthcare, food, water and social security], and 29 [education] of the Constitution.*" Section 5(1)(g) provides that members of the local community have the right "*to have access to municipal services which the municipality provides, provided the duties set out in subsection (2)(b) are complied with*." Section 5(2)(b) refers to the duty of members of the local community, where applicable, to pay promptly amongst others service fees imposed by the municipality. Section 73(1)(c) provides that a municipality must ensure that all members of the local community have access to at least the minimum level of basic municipal services. Section 73(2)(a) provides that municipal services must be "*equitable and accessible*". Section 1 defines a "*municipal service*" as "*a service that a municipality in terms of its powers and functions provides or may provide to or for the benefit of the local community irrespective of whether … fees, charges or tariffs are levied in respect of such a service or not.*" A "*basic municipal service*" is "*a municipal service that is necessary to ensure an acceptable and reasonable quality of life and, if not provided would endanger public health or safety or the environment*."

The Water Services Act, 1997, Act 108 of 1997 provides as follows in "*Section 3(1) Everyone has a right of access to basic water supply and basic sanitation. (2) Every water services institution [which include the municipalities] must take reasonable measures to realise these rights. (3) Every water services authority [which would include the municipalities] must, in its water services development plan, provide for measures to realise these rights. (4) The rights mentioned in this section are subject to the limitations contained in this Act.*"

From the above, and further in consideration of the Stellenbosch Municipality: By-law on Municipal Land Use Planning, 2023, Section 82, it is apparent that the Municipality has substantial constitutional and statutory obligations to take reasonable measures to provide services to its residents in respect of potable water supply, domestic waste water and sewage disposal, which obligations have been transferred to the applicant in terms of the Bylaw.

15.3 Efficient and beneficial use of water in the public interest

As in 15.2 above, the entire community derives benefits by the water uses. The external services are not intended to service a single landowner, but an entire urban settlement that includes amongst others 20% of inclusionary housing units, which amounts to 120 units, for citizens who do not have access to adequate housing, in terms of the proposed full development of Portion 28 with 884 residential units.

The specialist freshwater assessment determined that or the operational phase it is only the consequences of damaged and leaking pipelines that can cause potentially significant flow regime and water quality impacts, with the latter limited to the sewerage pipeline crossing of the Sand River only. The impact significance rating for the operational phase

impacts subject to practicable mitigation measures is very low and the proposed installation of the external services is supported from a freshwater ecological perspective. This is conditional on the recommended mitigation measures being implemented. The project also provides an opportunity to rehabilitate the 'landfill' watercourse immediately upstream of the proposed crossing point where solid waste is still evident and earthworks have left the area devoid of vegetation and exposed to erosion.

15.4 Socio-economic impact

The residents of small rural settlements and farms have to spend significant portions of their monthly income to travel to Stellenbosch, Franschhoek or Klapmuts for work, education, social and sporting activities, shopping, and medical attention. 25% of the Stellenbosch population live in the rural areas and all have to travel to the three main centres for every need. It is not sustainable, and the existing Lynedoch Village should rather be permitted to expand so that the large rural population in the western region can have access to the same affordable opportunities as those residents close to or in the main centres. Such expansion can only occur if the external services are installed and availed to the residents of the area.

The socio-economic impact assessment for the development of Portion 28 by Demacon, as specialist a specialist research firm with a focus on topics in the fields of Demographics, Mapping (GIS) and Economics, including real estate economics indicates that more than 800 permanent employment opportunities will be created if the full development of the 45ha farm with 884 dwelling units, education facilities, a commercial centre, and community facilities is approved. The Demacon socio-economic impact assessment indicates that 38,78 hectares could be developed and taken up over a 10-year timeframe. This includes 88,7% (34,41 ha) for residential uses and 11,3% (4,37 ha) for non-residential uses. The farm is ideally positioned close to a train station and public transport routes to accommodate the full extent of residential and commercial / non-residential land uses. According to the Demacon study there is a demand for approximately 322 medium density residential dwelling units over the next five years, and over 5 – 10 years, for 431 additional units. The study included a market survey that determined an affordability profile for the development. 43,8% of respondents indicated that they would buy in the area, 25% would rent and 31,3% would require some form of subsidised housing, which the developer has included in proposal through inclusionary housing.

The Agricultural Impact Assessment found that there is no economic reason (or benefit) to retain an unproductive farm that incurs costs and cannot generate economic benefit for the owners or the immediately surrounding community. Moreover, with limited irrigation water and agricultural infrastructure available, the farm cannot be re-purposed for commercially viable agricultural use without significant capital input.

The advantages can only be achieved if the relevant approvals are granted for appropriate development of the entire 45,5ha property included in the urban edge and the external services related thereto.

15.4.1 Of water use or uses if authorised

As above in 15.4.

15.4.2 Of the failure to authorise water use or uses

As above in 15.2 and 15.4. Failure to approve of the water uses would result in the entire community not being provided with adequate municipal services infrastructure and therefore also not adequate housing.

15.5 Any catchment management strategy applicable to the relevant water resource

A Catchment Management Strategy has not yet been established.

15.6 Likely effect of the water use to be authorized on the water resource and on other water users

As indicated in 15.3 above, the water resources will be minimally affected by the water uses and consequently any relevant water users.

15.7 Describe the likely impact of the activity on the water resource and other users

As indicated in 15.3 above, the activities will have be minimal detrimental effect on the water resources and the potential effects be appropriately mitigated. Consequently, the uses would not negatively affect any relevant water users.

15.8 Class and the resource quality objectives of the water resource

The application of the ecological assessment indices (WET-EcoServices, WET-Health/IHIA and EIS); resulted in the following for each of the affected watercourses (see Table below).

Watercourse	WET-Ecoservices	PES	EIS
Unchannelled Valley Bottom Wetland ('clean' watercourse)	Intermediate	Category "D" (Largely Modified)	Marginal/low
'Landfill' drainage line	N/A	Category "D" (Largely Modified)	Marginal/low
Sand River	N/A	Category "D" (Largely Modified)	Marginal/low

The freshwater specialist found that given that all of the activities are associated with a LOW risk rating the proposed development qualifies for a General Authorisation (GA) as far as the Section 21 (c) and (i) water uses are concerned.

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

Uniqon has invested in the assessment of the receiving environment and the potential effects of the development thereon, planning of the proposed development and external services, the gaining of permission from the landowners and bodies in control of the land (Western Cape Government Department of Infrastructure as the road authority) for the external services, topographical survey of the relevant land, design of the services and the making of the relevant authorisation applications.

Uniqon is committed to the installation of the external services infrastructure in lieu of payment of development charges to the Stellenbosch Municipality, which will amount to an investment on behalf of the Municipality in excess of R20 million.

15.10 Strategic importance of the water use to be authorised

The water uses are not of strategic importance. They are of local importance only and in line with the municipal master plans as indicated in the bulk services assessment (Annexure J) to service a development on Portion 28 that is shown as included in the urban edge in its entirety.

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

The proposed water uses will have no effect on the water quality or reserve.

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

The proposed water uses are permanent and designed for the full potential development of Portion 28 or then the designated Lynedoch node, hence future upgrading of the infrastructure is not foreseen.

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

The content hereof and the annexure are true, correct, and complete.

Above signed compiler is aware that it is and offence to supply particulars, information, or answers in an application, or in any documentation or representation related to an application, knowing it to be false, incorrect, or misleading or not believing them to be correct.

ANNEXURE A: Proof of Payment of Water Use Licence Application Fee

NOTIFICATION OF PAYMENT

To Whom It May Concern:

First National Bank hereby confirms that the following payment instruction has been received:

Date Actioned	: 2025/04/23
Time Actioned	: 10:22:56
Trace ID	: MJNMCPJN

Payer Details

Payment From	: Virdus Works
Cur/Amount	: ZAR115.00

Payee Details

Recipient/Account No	: . . 000995
Name	: Bgcma
Bank	: ABSA BANK LIMITED
Branch Code	: 632005
Reference	: WU41806

END OF NOTIFICATION

To authenticate this Payment Notification, please visit the First National Bank website at fnb.co.za, select the "Verify Payments" link and follow the on-screen instructions.

Our customer (the payer) has requested First National Bank Limited to send this notification of payment to you. Should you have any queries regarding the contents of this notice, please contact the payer. First National Bank Limited does not guarantee or warrant the accuracy and integrity of the information and data transmitted electronically and we accept no liability whatsoever for any loss, expense, claim or damage, whether direct, indirect or consequential, arising from the transmission of the information and data.

ANNEXURE B: Applicant Company Registration Certificate

Certificate issued by the Companies & Intellectual Property Commission on Thursday, January 13, 2022

Abridged Certificate for Annual Returns

CoR 30.1

Registration Number: 1997 / 021737 / 07
Enterprise Name: UNIQON DEVELOPERS

Companies and Intellectual Property Commission
a member of the dti group

DIRECTOR / MEMBER INFORMATION

ID No / Date of Birth	Surname	Name(s)	Status	Type
700228 XXXX 08 X	COETZER	ETIENNE	Active	Director
541030 XXXX 08 X	BENDEMAN	HENDRIK JOHANNES JACOBUS	Active	Director
770318 XXXX 08 X	DU TOIT	SAREL FRANCOIS	Active	Director
790321 XXXX 08 X	SMIT	JACOBUS JOHANNES CORNELI	Active	Director
830308 XXXX 08 X	VAN GREUNING	MARTHINUS GERHARDUS	Active	Director

Our Reference **531582696**
Customer Code **BADIE1**
Filing Date **2016-01-11**

RE: ANNUAL RETURN FILING FOR COMPANY / CLOSE CORPORATION

CIPC received an annual return filing for UNIQON DEVELOPERS with enterprise number 1997 / 021737 / 07 for the following annual return year(s):

Physical Address
the dti Campus - Block F
77 Meintjies Street
Sunnyside 0001

Postal Address: Companies
P O Box 429
Pretoria
0001

Docex: 256
Web: www.cipc.co.za
Contact Centre: 086 100 2472 (CIPC)
Contact Centre (International): +27 12 394 9573

South African Revenue Service

VALUE-ADDED TAX VATSA

Statement of Account

Enquiries should be addressed to SARS:

Contact Detail

SARS
ALBERTON
1528

Tel: 0800 00 7277 Website: www.sars.gov.za

UNIQON DEVELOPERS (PTY)LTD
BENDECO
POSBUS 29593
SUNNYSIDE
0132

Details

Registration Number: 4670207440
Date: 2023/11/23
Statement period: 2023/10/01 to 2023/10/31

Always quote this reference number when contacting SARS

Summary Information

TRANSACTION YEAR 2024	[redacted]
UNALLOCATED PAYMENTS	
CLOSING BALANCE	

Trading Name: UNIQON DEVELOPERS (PTY) LTD

Transaction details

Date	Transaction Reference	Transaction description	Transaction value	Transaction allocation information			Account balance
				Tax	Penalty	Interest	
		CUMULATIVE BALANCE		0.00	0.00	0.00	0.00

Unallocated payments excluded from the closing balance

Ageing - Transactions are aged according to original due date, including all related interest and penalties

Current	30 Days	60 Days	90 Days	120+ Days	Total
0.00	0.00	0.00	0.00	0.00	0.00

Compliance Information

Diesel Concession	NONE	Selected for Audit	
Outstanding Returns			

THIS STATEMENT REFLECTS ONLY THE LATEST PERIODS. PLEASE ACCESS YOUR COMPLIANCE STATUS ON YOUR COMPLIANCE DASHBOARD TO VIEW YOUR OVERALL COMPLIANCE STATUS.

ANNEXURE C: Copy of applicant Director ID

NOTICE OF PERSONAL PARTICULARS

1. Any changes to the personal particulars in your ID Book must be communicated to all relevant parties.

NOTICE OF CHANGE OF ADDRESS

1. Keep the NOTICE OF CHANGE OF ADDRESS form in this pocket to report a change of address or a change in particular of your present address e.g. name of street and/or street number etc.

2. Hand in at or post to the nearest regional/district office of the DEPARTMENT OF HOME AFFAIRS

1

I.D. No. 700228 [redacted] 08[redacted]

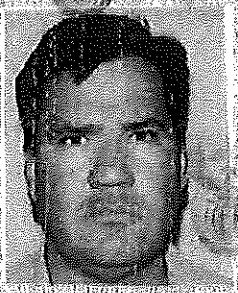
S.A.CITIZEN

SURNAME
COETZER

FORENAMES
ETIENNE

COUNTRY OF BIRTH
SOUTH AFRICA

DATE OF BIRTH
1970-02-28



DATE ISSUED
2012-06-05

ISSUED BY AUTHORITY OF
THE DIRECTOR-GENERAL
HOME AFFAIRS

SAREL FRANCOIS DU TOIT
COMMISSIONER OF OATHS
17 CATHERIN DRIVE, SHERE A/H
REF NR: 9/1/8/2 PRETORIA

GEREGISTREERDE WOON- EN POSADRES

1. Bewaar die bewys van u GEREGISTREERDE WOON- EN POSADRES in hierdie sakkie.

2. Indien u van adres verander het, of indien besonderhede van u huidige adres, bv. straatnaam en/of -nommer, ens. verander het, moet die vorm KENNISGEWING VAN ADRESVERANDERING, wat in die sakkie agter in die identiteitsdokument is, gebruik word om die verandering aan te meld en moet dit ingedien word by of gepos word aan die naaste streek-/distrikkantoor van die DEPARTEMENT VAN BINNELANDSE SAKE.

REGISTERED RESIDENTIAL AND POSTAL ADDRESS

1. Keep the proof of your REGISTERED RESIDENTIAL AND POSTAL ADDRESS in this pocket.

2. If you have changed your address, or, if particulars of your present address, e.g. name of street and/or street number, etc., have been changed, the NOTICE OF CHANGE OF ADDRESS form in the pocket at the back of the identity document must be used to report the change and it must be handed in at or posted to the nearest regional/district office of the DEPARTMENT OF HOME AFFAIRS.

1

I.D.No. 541030 [redacted] 08 [redacted]

ID COPY

S.A.BURGER/S.A.CITIZEN

VAN/SURNAME

BENDEMAN

VOORNAME/FORENAMES

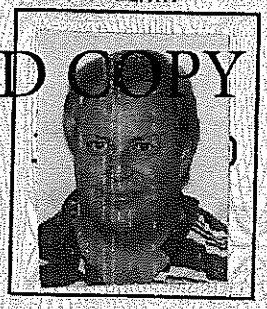
HENDRIK JOHANNES JACOBUS

GEBOORTEDISTRIK OF-LAND/
DISTRICT OR COUNTRY OF BIRTH

SUID-AFRIKA

GEBOORTEDATUM/
DATE OF BIRTH

1954-10-30



DATUM UITGEREIK
DATE ISSUED

1998-12-10

UITGEREIK OP GESAG VAN DIE DIREKTEUR-GENERAAL: BINNELANDSE SAKE

ISSUED BY AUTHORITY OF THE DIRECTOR-GENERAL: HOME AFFAIRS

SAREL FRANCOIS DU TOIT
COMMISSIONER OF OATHS
17 CATHERIN DRIVE, SHERE A/H
REF NR: 9/1/8/2 PRETORIA

GEREGISTREERDE WOON- EN POSADRES

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REGISTERED RESIDENTIAL AND POSTAL ADDRESS

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I.D.No. 790321 [redacted] 08 [redacted]

S.A.BURGER/S.A.CITIZEN

VAN/SURNAME
SMIT

VOORNAME/FORENAMES
JACOBUS JOHANNES CORNELIUS

GEBOORTEDISTRIK OF LAND/
DISTRICT OR COUNTRY OF BIRTH
SUID-AFRIKA

GEBOORTEDATUM/
DATE OF BIRTH
1979-03-21

DATUM UITGEREIK
DATE ISSUED
2005-07-06

MARTINUS J ROOTHMAN
COMMISSIONER OF OATHS
EX OFFICIO - PROFESSIONAL ACCOUNTANT (S.A.)
3 PRESSBURG ROAD
MODDERFONTEIN
1645

GEREGISTREERDE WOON- EN POSADRES

1. Bewaar die bewys van u GEREGISTREERDE WOON- EN POSADRES in hierdie sakkie.

2. Indien u van adres verander het, of indien besonderhede van u huidige adres, bv. straatnaam en/of -nommer, ens. verander het, moet die vorm KENNISGEWING VAN ADRESVERANDERING, wat in die sakkie agter in die identiteitsdokument is, gebruik word om die verandering aan te meld en moet dit ingedien word by of gepos word aan die naaste streek- distrikkantoor van die DEPARTEMENT VAN BINNELANDSE SAKE.

REGISTERED RESIDENTIAL AND POSTAL ADDRESS

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1

I.D.No. 770318 [redacted] 08 [redacted]

S.A.BURGER/S.A.CITIZEN

VAN/SURNAME

DU TOIT

VOORNAME/FORENAMES

SAREL FRANCOIS

GEBOORTEDISTRIK OF-LAND/
DISTRICT OR COUNTRY OF BIRTH

SUID-AFRIKA

GEBOORTEDATUM/
DATE OF BIRTH

1977-03-18

DATUM UITGEREIK
DATE ISSUED

1997-07-10

UITGEREIK OP GESAG VAN DIE
DIREKTEUR-GENERAAL
BINNELANDSE SAKE

ISSUED BY AUTHORITY OF THE
DIRECTOR-GENERAL
HOME AFFAIRS

MARTHINUS J ROOTHMAN
COMMISSIONER OF OATHS
EX OFFICIO - PROFESSIONAL ACCOUNTANT (S.A.)
3 PRESSBURG ROAD
MODDERFONTEIN
1645

GEREGISTREERDE WOON- EN POSADRES

1. Bewaar die bewys van u GEREGISTREERDE WOON- EN POSADRES in hierdie sakkie.

2. Indien u van adres verander het, of indien besonderhede van u huidige adres, bv. straatnaam en/of -nommer, ens. verander het, moet die vorm KENNISGEWING VAN ADRESVERANDERING, wat in die sakkie agter in die identiteitsdokument is, gebruik word om die verandering aan te meld en moet dit ingedien word by of gepos word aan die naaste streek-/distrikkantoor van die DEPARTEMENT VAN BINNELANDSE SAKE.

- REGISTERED RESIDENTIAL AND POSTAL ADDRESS

1. Keep the proof of your REGISTERED RESIDENTIAL AND POSTAL ADDRESS in this pocket.

2. If you have changed your address, or, if particulars of your present address, e.g. name of street and/or street number, etc., have been changed, the NOTICE OF CHANGE OF ADDRESS form in the pocket at the back of the identity document must be used to report the change and it must be handed in at or posted to the nearest regional/district office of the DEPARTMENT OF HOME AFFAIRS.

1

I.D.No. 830308 [redacted] 08 [redacted]

S.A.BURGER/S.A.CITIZEN

VAN/SURNAME

VAN GREUNING

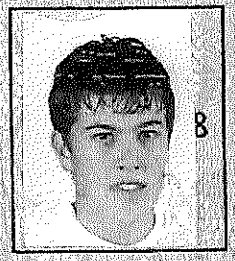
VOORNAME/FORENAMES

MARTHINUS GERHARDUS

GEBOORTEDISTRIK OF-LAND/
DISTRICT OR COUNTRY OF BIRTH

SUID-AFRIKA

GEBOORTEDATUM/
DATE OF BIRTH 1983-03-08



B

DATUM UITGEREIK
DATE ISSUED

1999-05-12

UITGEREIK OP GESAG VAN DIE DIREKTEUR-GENERAAL: BINNELANDSE SAKE

ISSUED BY AUTHORITY OF THE DIRECTOR GENERAL: HOME AFFAIRS

MARTHINUS J. ROOTHMAN
COMMISSIONER OF OATHS
EX OFFICIO - PROFESSIONAL ACCOUNTANT (S.A.)
3 PRESSBURG ROAD
MODDERFONTEIN
1645

ANNEXURE D: Title Deeds of subject properties

117
CLUVER MARKOTTER

Prepared by me

CONVEYANCER
P O S MEAKER

SEE REG
DUTY R.....

FOOI
FEE R...100,00.....

T 80 80295

DEED OF TRANSFER

CLUVER MARKOTTER
ATTORNEYS
STELLENBOSCH

BE IT HEREBY MADE KNOWN

THAT ~~JACOBUS ADRIAAN LOUW DE WAAL~~ JOHANNES HENDRIKUS VILJOEN

Conveyancer, appeared before me, Registrar of Deeds, at Cape Town he being duly authorised thereto by a Power of Attorney signed at STELLENBOSCH on the 10th day of AUGUST 1995 and granted to him by

GOEDGELEGEN BOERDERY (EIENDOMS) BEPERK
NO 69/04639/07

\wp6\transfer\private\nidri.tr

VIR ENDORSEMENTE KYK BLADSY 7
FOR ENDORSEMENTS SEE PAGE 7

For Information Only

BY NOTARIAL DEED OF SERVITUDE FOR A WATER PUMP STATION NO K
0000 00843/2010
DATED 16 AUGUST 2010 THE WITHINMENTIONED PROPERTY IS SUBJECT TO A WATER PUMPSTATION WITH VALVES, WATER PIPES AND OTHER ACCESSORIES FOR THE PURPOSES OF THE PUMPING OF IRRIGATION WATER OVER THE SERVIENT PROPERTY AND IS REPRESENTED BY THE FIGURE ABCDMETASURING 47 M² ON THE DIAGRAM NUMBER 8.263/1996.

AS WILL MORE FULLY APPEAR FROM THE SAID NOTARIAL DEED.

DEEDS OFFICE
CAPE TOWN

17 SEP 2010

REGISTRAR
OF
DEEDS.

For Information Only

AND the Appearer declared that his Principal on the **12 APRIL 1995** sold the undermentioned property to the undermentioned Transferee and that he, the Appearer, in his capacity aforesaid, did by these presents, cede and transfer in full and free property to and on behalf of

The Trustees for the time being of the
NIDRI FARMS TRUST
No IT 1225/95

its Administrators or Assigns

PORTION 2 of the Farm SCHULDPAD VLEI NO 394, in the Division of STELLENBOSCH, Province of the WESTERN CAPE

MEASURING: 24,4978 (TWENTY FOUR COMMA FOUR NINE SEVEN EIGHT) Hectares

FIRST TRANSFERRED by Deed of Transfer No T 5992/1944 with Diagram No 4430/43 annexed thereto and held by Deed of Transfer No T 20472/1969.

A. SUBJECT to the conditions marked (a). (b). (c). (d). i. ii. and iii and (e) contained in Deed of Grant issued under the provisions of Act No 12 of 1912 on 1st November 1918 (Stellenbosch Quitrents Volume 24 No 11) which read as follows:

"(a) That all rights to minerals on or under the land hereby granted are hereby reserved to the Crown and subject to the provisions hereinafter contained, the Governor-General may, in accordance with the laws regulating prospecting and mining for minerals deal with the same as if the land on or under which the minerals exist had not been granted; provided that the grantee may quarry or get limestone and building stone, dig clay, burn lime and bricks on the said land, but solely for the purpose of building or otherwise utilizing the same thereon, and may take so much coal as he may require for his domestic use and for the plant and machinery used for working the said land.

For Information Only

(b) That the Governor-General may resume for mining purposes or purposes incidental thereto the land hereby granted or portion thereof, and deal with the same in accordance with the laws referred to in Clause (a) preceding. If the land hereby granted or any portion thereof be so resumed, such compensation shall be paid by the Governor-General to the grantee as may be mutually agreed upon, or failing such agreement as may be determined by arbitration.

(c) Whenever damage is being or has been caused to the grantee by any operation connected with the prospecting for, or the discovery or exploitation of minerals on the land hereby granted, the person who caused the damage shall be liable to pay compensation to the grantee as provided in Section thirty-two, Sub-section (1) of the Land Settlement Act, 1912.

(d) That the Governor-General may at any time, and in such manner and under such conditions as he may think fit.

i. Construct or authorise the construction of dams or reservoirs upon the land hereby granted;

ii. Construct or authorise the construction upon, through or under the land hereby granted, of water-furrows, pipe-lines, canals and drains, andconduct or authorise the conducting of water therefrom or thereover for the benefit of the public or any owner or occupier of neighbouring land.

iii. Construct and work or authorise the construction and working, subject to the provisions of any law, of railways, roads, telegraph and telephonic lines on or over the land hereby granted, and take materials from the land hereby granted for the purpose of any such works.

Compensation shall be paid to the grantee for any loss or damage sustained by him by reason of the exercise of the powers aforesaid, provided, however, that there shall be set off against the loss or damage caused to the grantee the benefit instant or prospective which he derives or is likely to derive by reason of the construction of the works. In the event of compensation being payable the amount thereof shall be mutually agreed upon or, failing such agreement, shall be determined by arbitration.

For Information Only

(e) That all roads, thoroughfares, and rights of outspan being or existing on the land hereby granted shall remain free and unencumbered unless the same be cancelled, closed or altered by competent authority."

B. BY VIRTUE OF Deed of Transfer No T 22252/1946 the owner of the property thereby transferred is entitled to a right of way over the property held by virtue of paragraph 1 of Deed of Transfer No T 5992/1944, which right of way is 20 feet wide and runs along the western boundary of the said property marked a.b. on the diagram of the said property, subject to those conditions as will more fully appear from the said Deed of Transfer.

C. SUBJECT FURTHER to an Endorsement in terms of Section 31(6) of Act 47 of 1937 (as amended) dated 7 August 1972 on Deed of Transfer No T 20472/1969, which endorsement states that a portion of the hereinmentioned property, measuring ± 0,3085 HA has been expropriated by the Divisional Council of Stellenbosch in terms of Section 130 of Ord 15 of 1952.
Vide Notice of expropriation H/2/11 dated 21 July 1972 filed as exprop. caveat 710/1972 plans in duplicate filed 710/1972."

D. BY VIRTUE OF Notarial Deed No K 227/1981S dated 7 May 1980 Portion 2 of the Farm Schuldpad Vlei No 394, Measuring 24,4978 hectares held by Deed of Transfer No T 20472/1969 is **subject to** a servitude of aqueduct 4 metres wide, the eastern boundary of which is denoted by the boundary line ba on diagram No 4430/1943 annexed to Deed of Transfer No T 5992/1943, in favour of:

(i) Remainder of Portion 3 (a ptn of Ptn 2) of the farm Lyndoch No 489, meas. 4,0318 hectares held by T 194/1964

(ii) Portion 6 (a ptn of Ptn 3) of the farm Lyndoch No 489, meas. 2,0256 hectares held by T 21256/1978

(iii) Portion 4 (a ptn of Ptn 3) of the farm Lyndoch No 489, meas. 2,1413 hectares held by T 6136/1960

For Information Only

(iv) Portion 5 (a ptn of Ptn 2) of the farm Lyndoch No 489, meas. 5,3576 hectares held by T 15963/1954

(v) Remainder of Portion 2 of the farm Lyndoch No 489, meas. 5,3577 hectares held by T 6825/1948

(vi) Portion 1 (Mooi Uitsig) of the farm Lyndoch No 489, meas. 51,3281 hectares held by T 2545/1946

with ancillary rights and subject to conditions as will more fully appear from said Notarial Deed.

For Information Only

WHEREFORE the Appearer, renouncing all the right and title of the TRANSFEROR

heretofore had to the premises, did in consequence also acknowledge the TRANSFEROR to be entirely dispossessed of, and disentitled to, the same; and that, by virtue of these presents, the said

TRANSFEREE

its Administrators or Assigns

now is and henceforth shall be entitled thereto, conformably to local custom; the State, however, reserving its rights; and finally declared that the purchase price amounting to R1 050 000,00 (ONE MILLION AND FIFTY THOUSAND RAND) has been satisfactorily paid or secured.

IN WITNESS whereof I, the said Registrar of Deeds, together with the Appearer, q.q., have subscribed to these Presents, and have caused the Seal of Office to be affixed thereto.

THUS DONE and executed at the Office of the Registrar of Deeds,

in Cape Town, Cape Province, on the 30th day of October in the year of our Lord, One Thousand Nine Hundred and Ninety Five (1995).

q.q.

In my presence

Registrar of Deeds.

\wp8\transfer\private\nidri.tr

For information Only

117

Cluver Markotter Inc
Cluver Markotter Building
Mill Street
Stellenbosch
7600

Prepared by me

CONVEYANCER
AREND LEOPOLD DE WAAL

Fee endorsement		
	Amount	Office fee
Purchase price/Value	R 30 000 000,00	R 4675,00
Mortgage Capital Amount	R	R
Reason for exemption	Cat	Exempt i.t.o section Act

DATA / CAPTURE
06 DEC 2017
DIPONTSENG LEEUW

T0000704 01/2017

DEED OF TRANSFER

BE IT HEREBY MADE KNOWN THAT

ANTON LUTHER POSTHUMUS

appeared before me, REGISTRAR OF DEEDS at CAPE TOWN, the said appearer being duly authorised thereto by a Power of Attorney which said Power of Attorney was signed at STELLENBOSCH on 13 September 2017 granted to him by

HYFARM INVESTORS PROPRIETARY LIMITED
Registration Number 1988/003664/07

DATA/VERIFY
06 DEC 2017
VAN WYK JENNY

For Information Only

And the appearer declared that his said principal had, on 4 September 2017, truly and legally sold as part of a farming enterprise conducted as a going concern by Private Treaty, and that he, the said Appearer, in his capacity aforesaid, did, by virtue of these presents, cede and transfer to and on behalf of:

STONE PINE WINES PROPRIETARY LIMITED
Registration Number 1990/007072/07

or its Successors in Title or assigns, in full and free property

REMAINDER of PORTION 2 of the FARM SPIER NUMBER 491 in the Municipality and Division Stellenbosch, Western Cape Province

IN EXTENT 105,9642 (ONE HUNDRED AND FIVE COMMA NINE SIX FOUR TWO) Hectares

FIRST TRANSFERRED BY Deed of Transfer Number T3402/1920 with Diagram annexed thereto and HELD BY Deed of Transfer Number T44547/1996

A. **SUBJECT**, in so far as applicable to the above land, to the conditions referred to in Deed of Transfer No T3567/1936, and to the conditions in the Annexure marked "A" to the Certificate of Amended Title No T10805/1919, paragraphs 1, 5 and 6 whereof are repeated in said Deed of Transfer No T3567/1936, and read as follows:

"1. That all roads and thoroughfares being or existing on the said land, described in the plan or diagram of the same, shall remain free and uninterrupted unless the same be closed or altered by competent authority.

5. .....

6. ....."

B. **ENTITLED** to the benefit of the special condition mentioned in the Deed of Transfer No T3402/1920 and repeated in the said Deed of Transfer No T3567/1936, reading as follows:

"Lot 1 of Spier shall be entitled to a right of way 30 Cape Feet wide through the three Railway Crossings marked on the diagram annexed to the Certificate of Amended Title No 10805 dated 1 October 1919."

C. **SUBJECT** to the conditions referred to in the endorsement dated 31st December 1927 on said Deed of Transfer No T3402/1920 and repeated in said Deed of Transfer No T3567/1936, reading as follows:

"By Deed of Transfer No T13306 dated 31 December 1927 the registered owner and his successors of the property held thereunder shall be allowed to

For Information Only

sink a well or bore for water at a spot on the remainder held hereunder approximately 100 yards from the North Eastern Boundary of the property held thereunder with a right to all water so obtained and a right to erect a windmill or other mechanical device thereat and with right to lay a pipeline therefrom to said boundary or from certain other well site on remainder held hereunder with right of access for laying such pipes subject to conditions as will more fully appear on reference to the said transfer."

D. SUBJECT to Notice of Expropriation filed as caveat number EX95/2013 in favour of the Provincial Government of the Western Cape in respect of a portion of the within property, measuring approximately 0,1177 Hectares, as will more fully appear from this notice.

WHEREFORE the said Appearer, renouncing all rights and title which the said

HYFARM INVESTORS PROPRIETARY LIMITED
Registration Number 1988/003664/07

heretofore had to the premises, did in consequence also acknowledge it to be entirely dispossessed of, and disentitled to the same, and that by virtue of these presents, the said

STONE PINE WINES PROPRIETARY LIMITED
Registration Number 1990/007072/07

or its Successors in Title or assigns, now is and henceforth shall be entitled thereto, conformably to local custom, the State, however reserving its rights, and finally acknowledging the purchase price to be the sum of R30 000 000,00 (THIRTY MILLION RAND).

IN WITNESS WHEREOF, I the said Registrar, together with the Appearer, have subscribed to these presents, and have caused the Seal of Office to be affixed thereto.

THUS DONE and EXECUTED at the Office of the REGISTRAR OF DEEDS at CAPE TOWN on 27 NOV 2017 2017

q.q.

In my presence

REGISTRAR OF DEEDS

For Information Only

103 LAAS & SCHOLTZ
Tel. No 021 975 0802

Laas & Scholtz
Queen Street Chambers
33 Queen Street
Durbanville
7550

Prepared by me,

CONVEYANCER
ILISMI DU TOIT
LPCM87154

Deeds Office Registration fees as per Act 47 of 1937		
	Amount	Office Fee
Purchase Price	R 20 000 000,00	R 4588,00
All other		
Reason for exemption	Category Exemption.....	Exemption I t o. Sec/Reg..... Act/Proc.....

DATA / CAPTURE
13-04-2022
PHUMELELA MNAMATA

T 000014764/2022

DEED OF TRANSFER

DATA / VERIFY
13-04-2022
NOLUVO MTYATYAMBA

BE IT HEREBY MADE KNOWN:

THAT MARIA JOHANNA OLIVIER
LPCM 80934
appeared before me, REGISTRAR OF DEEDS **at CAPE TOWN**, he/she, the said Appearer, being duly authorised thereto by a Power of Attorney granted to him/her by

THE TRUSTEES FOR THE TIME BEING OF
THE ORION TRUST
Registration Number IT980/2001

dated 16 March 2022

and signed at DURBANVILLE

For Information Only

AND the said Appearer declared that his/her principal had on **22 October 2021** truly and legally sold by Private Treaty and that he/she, the said Appearer in his/her capacity aforesaid, did, by these presents cede and transfer to and on behalf of:

SOLID SPARK INVESTMENTS PROPRIETARY LIMITED
Registration Number 2021/918001/07

its successors in title or assigns in full and free property:

PORTION 1 (MOOI-UITSIG) OF THE FARM LYNDOCH NO 489
IN THE MUNICIPALITY AND DIVISION STELLENBOSCH
PROVINCE WESTERN CAPE
IN EXTENT: 51,3281 (FIFTY ONE COMMA THREE TWO EIGHT ONE) HECTARES

FIRST TRANSFERRED by Deed of Transfer No 2545/1946 with Diagam No 3344/1936 relating thereto and held by Deed of Transfer No T61397/2015.

A **SUBJECT** to the conditions set out in Deed of Grant (Stellenbosch Quitrents Volume 24 No 11) reading as follows:-

1 .....

2 .....

3 .....

4 That the State may at any time, and in such manner and under such conditions as it may think fit-

i Construct or authorise the construction of dams of reservoirs upon the land hereby granted;

ii Construct or authorise the construction upon, through or under the land hereby granted, of water-furrows, pipe-lines, canals and drains, and conduct or authorise the conducting of water therefrom or thereover for the benefit of the public or any owner or occupier of neighbouring land.

For Information Only

iii Construct and work or authorise the construction and working, subject to the provisions of any law, of railways, roads, telegraph and telephonic lines on or over the and hereby granted and take materials from the land hereby granted for the purposes of any such works.

Compensation shall be paid to the grantee for any loss or damage sustained by him by reason of the exercise of the powers aforesaid, provided however, that there shall be set off against the loss of damage caused to the grantee the benefit instant or prospective which he derives or is likely to derive by reason of the construction of the works. In the event of compensation being payable the amount thereof shall be mutually agreed upon or, failing such agreement, shall be determined by arbitration.

5. That all roads, thoroughfares and rights of outspan being or existing on the land hereby granted shall be remain free and unencumbered unless the same be cancelled, closed or altered by competent authority.

B **ENTITLED** to the following condition as contained in Deed of Transfer No 2545/1946, namely:-

"That the Transferee and his successors in title as owners of "Mooi-Uitsig" portion of Lyndoch and/or of any portion/s thereof shall be entitled to a right of way (18 feet in width) along the eastern boundary of the remaining extent of Lyndoch held by the said now late Marthinus Laurentius Joubert under the aforesaid Deed of Grant dated 1 November 1918 (Stellenbosch Quitrents Vol 24 of No 11), as also along the Eastern Boundary of the remaining extent of schuldpadvlei, held by the said now late Marthinus Laurentius Joubert under the aforesaid Deed of Grant dated 1 November 1918 (Stellenbosch Quitrents Vol 24 No 11)."

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C **SUBJECT** to an endorsement dated 7 April 1981 on Deed of Transfer No 2545/1946, reading as follows:-

By Notarial Deed No K 227/1981 S dated 7.5.1980, Portion 1 (Mooi Uitsig) of the farm Lyndoch No 489 meas. 51,3281 hectares held hereunder is

1. **ENTITLED** to a servitude of aquaduct 4 metres wide, the eastern boundary of which is denoted by the boundary line b a on diagram No 4430/1943 annexed to T5992/1944, over Portion 2 of the farm Schulpad Vlei No 394, meas. 24,4978 hectares held by T.20472/1969.

2. **ENTITLED** to a servitude of aquaduct 4 metres wide, the eastern boundary of which is denoted by the boundary line a d on diagram no 8439/1947 annexed to T2076/1948, over remainder of Portion 3 (a portion of portion 2) of the farm Lyndoch No 489 measuring 4,0318 hectares held by T 194/1964.

3. **ENTITLED** to a servitude of aquaduct 4 metres wide, the eastern boundary of which is denoted by the boundary line A D on Diagram No 12649/1948 annexed to T16721/1949, over Portion 5 (a portion of Portion 2) of the farm Lyndoch No 489 measuring 5,3576 hectares held by T15963/1954.

4. **ENTITLED** to a servitude of aquaduct 4 metres wide, the eastern boundary of which is denoted by the boundary line D F on the aforesaid diagram No 12649/1948, over Remainder of Portion 2 of the farm Lyndoch No 489 measuring 5,3577 hectares held by T 6825/1948 with ancillary rights and subject to conditions as will more fully appear from said Notarial Deed.

D **SUBJECT** to an endorsement dated 28/09/2010 on Deed of Transfer No T32314/1994, reading as follows:-

Kragtens Notariele akte K882/2010 S gedateer 14 April 2010 is die binnegemelde eiendom geregtig aan die volgende serwitutue:

(i) Waterleiding;
(ii) Pompterrein;

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(iii) Pyplyn serwituut 5,67 meter wyd, aangedui deur die lyne AB, BCD en DE asook die serwituutgebied aangedui deur die figuur FGHJ wat 22 vierkante meter groot is aangedui op die diagram LG 3880/2009 en aan bogenoemde notariele akte geheg is;

(iv) En reg van weg van 5,67 meter wyd aangedui deur die lyne AB, CDEFG en HJK aangedui op Kaart nr LG7599/2007 aangeheg aan bogenoemde notariele akte oor Restant Gedeelte 14 van die plaas Spier nr 491 gehou kragtens T14315/1997.

Soos volledig sal blyk uit gesegde notariele akte.

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WHEREFORE the Appearer, renouncing all the right, title and interest which the said **The Trustees for the time being of THE ORION TRUST** heretofore had to the premises, did, in consequence also acknowledge him, to be entirely dispossessed of, and disentitled to, the same; and that, by virtue of these presents, the said **SOLID SPARK INVESTMENTS PROPRIETARY LIMITED,** its successors in title or assigns now is and henceforth shall be entitled thereto, conformably to local custom, the State, however, reserving its rights, and finally acknowledging the purchase price of the property hereby transferred to be the sum of **R20 000 000,00 (TWENTY MILLION RANDS)**.

IN WITNESS WHEREOF I, the said Registrar of Deeds together with the Appearer, have subscribed to these presents, and have caused the Seal of Office to be affixed thereto.

THUS DONE AND EXECUTED at the Office of the REGISTRAR OF DEEDS **at CAPE TOWN** on - 8 APR 2022

q.q. Signature of Appearer

In my presence:

Registrar of Deeds

For Information Only

Opgestel deur my,

TRANSPORTBESORGER
KAT J

236

FEE
R 1200 00

PLAAS 9

KRAGTENS ONDERGEMELDE NOTARIELE AKTE IS DIE ROETE VAN DIE BINNEGEMELDE KRAGLYNSERWITUUT BEREIK	BY VIRTUE OF THE UNDERMENTIONED NOTARIAL DEED THE ROUTE OF THE WITHINMENTIONED POWERLINE SERVITUDE HAS BEEN DETERMINED
K S	REGISTRATEUR/REGISTRAR

DATA / VERIFY
24 MAY 2010
GONCALVES B

DATA / CAPTURE
24 MAY 2010

KAT & KIE
Cabernethuis-Oos
Brandwachtkantoorpark
Trumalistraat
STELLENBOSCH
7600
Docex 32, STELLENBOSCH

017126/10
T

AKTE VAN TRANSPORT

HIERMEE WORD BEKEND GEMAAK

DAT ANNECKE LOUW

voor my die REGISTRATEUR VAN AKTES verskyn het te KAAPSTAD, die genoemde Komparant synde behoorlik daartoe gemagtig deur 'n Volmag aan hom/haar verleen deur

VREDENBURGH LANDGOED (EIENDOMS) BEPERK
Registrasie Nommer 1986/003194/07

gedateer 19 Februarie 2010

en geteken te STELLENBOSCH

For Further endorsement see Page 19

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VIR VERDERE ENDOSSEMENTE SIEN
FOR FURTHER ENDORSEMENTS SEE P.20

PARA 9.

By virtue of 000000687/2011/2011S dated

2/6/2011

(1) Cond. J in para 9 has been cancelled.

(2) Onderhewig aan 'n ewig-durende serw. van elektriese kraggeleiding 22 meter wyd oor die eiendom, wat strek 11 meter wyd aan die middellyn ~~1000~~ aangedui deur die lyn a B c en serw. kaart LG HR 1608/20 met bykomende regte ten gunste van ESKOM BEHEREND MAATS. APPY. IN STAATBESIT BEPERK.

SOOS MEER VOLLEDIG SAL BLYK UIT GESEGDE NOTARIELE AKTE.

REGISTRATEUR VAN AKTES

AKTEKANTOOR 10 AUG 2011
KAAPSTAD

For Information Only

EN genoemde Komparant het verklaar dat **VREDENBURGH LANDGOED (EIENDOMS) BEPERK** die ondergemelde eiendom op **4 September 2008** waarlik en wettiglik per **privaat verkoping** verkoop het en dat hy/sy in sy/haar voornoemde hoedanigheid hierby sedeer en transporteer aan en ten gunste van:

VREDENHEIM (EIENDOMS) BEPERK
Registrasie Nommer 1995/007371/07

die ampsopvolgers in titel of regsverkrygendes in volkome en vrye eiendom:

1. **DIE RESTANT VAN DIE PLAAS Nr. 383, geleë in die Munisipaliteit en Afdeling Stellenbosch, Provinsie Wes-Kaap**

   GROOT: 13,2392 (DERTIEN KOMMA TWEE DRIE NEGE TWEE) Hektaar

   OORSPRONKLIK OORGEDRA kragtens Grondbrief uitgereik op 24 Januarie 1691, Ou Stellenbosch Eiendomsbriewe Boekdeel 1, Deel 1, Folio 2 met Kaart daaraan geheg en gehou kragtens Transportakte Nr. T48723/1986.

   A. ONDERHEWIG aan die voorwaardes waarna verwys word in Transportaktes Nrs. 11459 gedateer 31 Desember 1897 en 8587 gedateer 18 September 1906.

   B. GEREGTIG op die voordeel van die Serwituut waarna verwys word in die volgende Aantekening gedateer 29 September 1949 op Transportakte Nr. 15356/1942, naamlik:

   "Paras.1, 2, 4, 6, 8 & Remdr. Paras. 3, 5 & 7.

   Deed of Servitude

   By Deed of Transfer No. 16067/1949 dated 29/9/1949 the property thereby transferred (Paras 1, 2 & 3) has been made subject to the following condition i.f.o. the remaining properties held hereunder viz:

   (i) .....

   (ii) The owner of the ppty. thereby transferred shall be obliged to erect a weighbridge on the ppty thereby transferred (Paras 1 & 2) as indicated on the diagrams thereto annexed. The owner of the remaining ppties held hereunder shall be entitled to weigh (Free of charge) all grapes pressed in cellar on ppty para 1 hereunder and to reasonable access thereto.

   Subject to conditions as will more fully appear on reference to the said deed of Transfer ."

   C. GEREGTIG tesame met eiendomme nrs 2 tot 12 hieronder op die voordele van die Serwituut waarna verwys word in die volgende Aantekening gedateer 18 September 1972 op Transportakte Nr. 15356/1942, naamlik:

For Information Only

Farms 3, 16, 17, 18, 19, 20

GETRANSPORTEER AAN TRANSFERRED TO
K.D.K. Bloos
RESTANT/REMAINDER
T 000040920/2013
2013 -08- 19
REGISTRATEUR/REGISTRAR

Para 9

SERTIFIKAAT VAN GEREGISTREERDE TITEL UITGEREIK
CERTIFICATE OF REGISTERED TITLE ISSUED
TEN OPSIGTE VAN Ptn 36 = 4291 m²
IN RESPECT OF
RESTANT
REMAINDER 77,2064 ha
T
29 SEP 2023
REGISTRATEUR/REGISTRAR

Para 12

GETRANSPORTEER AAN
Stellenbosch Hills (Landbou Koop) Beperk
TRANSFERRED TO
RESTANT/REMAINDER
T
29 SEP 2023
REGISTRATEUR/REGISTRAR

VIR ENDOSSEMENTE KYK BLADSY
FOR ENDORSEMENTS SEE PAGE 21

For Information Only

T17126/2010.

PARA 10.

Endorsement of Servitude

(1)

1. Die Eienaar verleen hiermee aan die Munisipaliteit 'n ewigdurende Riool serwituut area, 563 (vyfhonderd drie en sestig) vierkante meter groot soos aangedui deur figure ABCDE op die serwituut diagram SG Nommer 673/2021.

2. Die Eienaar verleen hiermee aan die Munisipaliteit 'n ewigdurende Riool serwituut area, 201 (tweehonderd en een) vierkante meter groot soos aangedui deur figure FGHJKL op die serwituut diagram SG Nommer 673/2021.

3. Die Eienaar verleen hiermee aan die Munisipaliteit 'n ewigdurende Riool serwituut area, 145 (een honderd vyf en veertig) vierkante meter groot soos aangedui deur figure MNPQRS op die serwituut diagram SG Nommer 673/2021.

4. Die Eienaar verleen hiermee aan die Munisipaliteit 'n ewigdurende Riool serwituut area, 353 (driehonderd drie en vyftig) vierkante meter groot soos aangedui deur figure TUVWXY op die serwituut diagram SG Nommer 673/2021.

5. Die Eienaar verleen hiermee aan die Munisipaliteit 'n ewigdurende Riool pyplynserwituut area, 88 (agt en tagtig) vierkante meter groot soos aangedui deur figure 1A1BC1C op die serwituut diagram SG Nommer 673/2021.

6. Die Eienaar verleen hiermee aan die Munisipaliteit 'n ewigdurende Riool pyplynserwituut, 5,00 (vyf) meterwyd waarvan die middellyn verteenwoordig word deur die lyn C1D1EK op die serwituut diagram SG Nommer 673/2021.

7. Die Eienaar verleen hiermee aan die Munisipaliteit 'n ewigdurende Riool pyplynserwituut, 5,00 (vyf) meter wyd waarvan die middellyn verteenwoordig word deur die lyn HS in die serwituut diagram SG Nommer 673/2021.

8. Die Eienaar verleen hiermee aan die Munisipaliteit 'n ewigdurende Riool pyplynserwituut, 5,00 (vyf) meter wyd waarvan die middellyn verteenwoordig word deur die lyn N1G1H1J1K1L1MY in die serwituut diagram SG Nommer 673/2021.

9. Die Eienaar verleen hiermee aan die Munisipaliteit 'n ewigdurende Riool pyplynserwituut, 5,00 (vyf) meter wyd waarvan die middellyn verteenwoordig word deur die lyn 1L1N in die serwituut diagram SG Nommer 673/2021.

10. Die Eienaar verleen hiermee aan die Munisipaliteit 'n ewigdurende Riool pyplynserwituut, 5,00 (vyf) meter wyd waarvan die middellyn verteenwoordig word deur die lyn V na x in die middel van die Blaauklip River in serwituut diagram SG Nommer 673/2021.

SOOS MEER OMMELIK STAL BLYK IN NOTARIËLE AKTE.

KRAGTENS K [illegible] S CSDATEER 15 AUGUSTUS 2023

Registrar of Deeds
Deeds Office
Cape Town

VIR ENDOSSEMENTE, KYK BLADSY 30
FOR ENDORSEMENTS SEE PAGE

For information only

PKDA-4 -30- T7126/2010

Endorsement of Servitude

KRAGTENS K 3 6 1 CRDATEER. 15/8/2023

1. Die Eienaar verleen hiermee aan die Munisipaliteit 'n ewigdurende Riool serwituut area, 240 (twee honderd en veertig) vierkante meter groot soos aangedui deur die figure AB CDEFG op die serwituut diagram SG Nommer 672/2021.
2. Die Eienaar verleen hiermee aan die Munisipaliteit 'n ewigdurende Riool pyplynserwituut, 5,00 (vyf) meter wyd, waarvan die middellyn verteenwoordig word deur die lyn B na x in die middel van Blaauklip River in serwituut diagram SG No. 672/2021.

3. Die Eienaar verleen hiermee aan die Munisipaliteit 'n ewigdurende Riool pyplynserwituut, 5,00 (vyf) meter wyd, waarvan die middellyn verteenwoordig word deur die lyn DJ in serwituut diagram SG No. 672/2021.

SOOSMEER OUDELIK SAL BLYK UIT NOTARIËLE AKTE.

Registrar of Deeds
Deeds Office
Cape Town

For Information only

VIR ENDOSSEMENTE KYK BLADSY
FOR ENDORSEMENTS SEE PAGE 31

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PTN/A 384

THE PROPERTY DESCRIPTION:

AMENDED IN TERMS OF SECTION 4 (1) VAN WYSIGINGSWET OP WET 47 VAN 1937 OM TE LEES.

AMENDED IN TERMS OF SECTION 4 (3) (b) OF ACT 47 OF 1937 TO READ:

DIE RESTANT VAN DEEL AS VEE DENBURG NR. 386, gelee in die Munisipaliteit en Afdeling van Stellenbosch, Provinsie Wes-Kaap

1

29 SEP 2023

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"Paras 1, 2 Rem Para 3, Para 4, Rem Para5, Para6, Rem.Para7 and Para8.

By virtue of D/T. No. 23009/72 the ppty therein transferred, namely Ptn 4 (a ptn of ptn 3 of the farm Vlottenberg Anex) is subject to the reservation of any rights to the use of water from the Eerste River which said ppty may be entitled to in favour of Par 1, 2, Rem. Para 3, Para 4, Rem Para 5, Para 6, Rem. Para 7 and Para 8.

As will more fully appear from said Deed of Transfer."

D. ONDERHEWIG aan die bepalings van die endossement ingevolge Artikel 10(1) van Wet 28 van 1969 gedateer 10 Maart 1976 op Transportakte Nr. 36614/1973, naamlik:

"In terms of Sect. 10 (1) of Act 28/69. This historic Vredenburg dwelling, with the inclusion of five metres of surrounding land, situate on the farm Vredenburg, being the remainder of the farm Vlottenburg 387 (measuring as such 130,1786 morgen) and the farm Vredenberg 383, 384, 385 and 386 (measuring altogether 17 morgen and 1 200 square roods and 91 square feet) both in the district of Stellenbosch has been proclaimed a National Monument by Proclamation no. 333 dated 21/2/1975 published in the Government Gazette of the same date. For further particulars refer to said proclamation and minute no. Ad/1/15 dated 17/11/75 from the Director of Archives, Pretoria, filed in file 24/4/6/16."

E. ONDERHEWIG verder aan die bepalings van 'n endossement gedateer 25 Januarie 1999 op Transportakte Nr. T48723/1986 naamlik:

'n Huurkontrakgebied Nr 1, vir die tydperk van 29 jaar synde: 1/7/1996 tot 30/6/2025, Groot 8,6554 hektaar ten gunste van die Trustees vir die huidige van die KIRSTEN EIENDOMSTRUST No T1223/1994, geregisteeer kragtens Notariële Huurkontrak K 71/1999 L.

F. ONDERHEWIG verder aan die bepalings van 'n endossement gedateer 14 Junie 2006 op Transportakte Nr. T48723/1986 naamlik:

'n Huurkontrakgebied Nr 2, vir die tydperk van 29 jaar synde: 1/7/2003 tot 30/6/2032 , Groot 2,4640 hektaar ten gunste van die Trustees vir die huidige van die KIRSTEN EIENDOMSTRUST No T1223/1994, geregistreer kragtens Notariële Huurkontrak K 553/2006 L

2. **DIE PLAAS Nr 384, geleë in die Munisipaliteit en Afdeling van Stellenbosch, Provinsie Wes-Kaap**

GROOT: 1,1892 (EEN komma EEN AGT NEGE TWEE) Hektaar

OORSPRONKLIK OORGEDRA kragtens Grondbrief uitgereik op 24 Januarie 1691, Ou Stellenbosch Eiendomsbriewe Boekdeel 1, Deel 1, Folio 2, met Kaart daaraan geheg en gehou kragtens Transportakte Nr. T48723/1986.

A. ONDERHEWIG aan die voorwaardes waarna verwys word in Transportaktes Nrs. 11459 gedateer 31 Desember 1897 en 8587 gedateer 18 September 1906.

B. GEREGTIG op die voordeel van die Serwituut waarna verwys word in die Aantekening gedateer 29 September 1949 op Transportakte Nr. 15356/1942 wat lees soos uiteengesit in Paragraaf 1.B. hierbo.

Form not for sale

C. GEREGTIG tesame met eiendom nr. 1 hierbo en eiendomme nrs. 3 tot 12 hieronder op die voordele van die Serwituut waarna verwys word in die Aantekening gedateer 18 September 1972 op Transportakte Nr. 15356/1942 wat lees soos uiteengesit in Paragraaf 1.C. hierbo.

D. ONDERHEWIG aan die bepalings van die endossement ingevolge Artikel 10 (1) van Wet 28 van 1969 gedateer 10 Maart 1976 op Transportakte Nr. 36614/1973 wat lees soos uiteengesit in Paragraaf 1.D. hierbo.

E. ONDERHEWIG verder aan die bepalings van 'n endossement gedateer 14 Junie 2006 op Transportakte Nr. T48723/1986 naamlik:

'n Huurkontrakgebied, vir die tydperk van 29 jaar synde: 1/7/2003 tot 30/6/2032, Groot 1,1892 hektaar ten gunste van die Trustees vir die huidige van die KIRSTEN EIENDOMSTRUST No T1223/1994, geregistreer kragtens Notariële Huurkontrak K 553/2006 L.

3. **DIE PLAAS Nr. 385, geleë in die Munisipaliteit en Afdeling Stellenbosch, Provinsie Wes-Kaap**

GROOT: 1,3123 (EEN komma DRIE EEN TWEE DRIE) Hektaar

OORSPRONKLIK OORGEDRA kragtens Grondbrief uitgereik op 24 Januarie 1691, Ou Stellenbosch Eiendomsbriewe Boekdeel 1, Deel 1, Folio 2 met Kaart daaraan geheg en gehou kragtens Transportakte Nr. T48723/1986.

A. ONDERHEWIG aan die voorwaardes waarna verwys word in Transportaktes Nrs. 11459 gedateer 31 Desember 1897 en 8587 gedateer 18 September 1906.

B. GEREGTIG op die voordeel van die Serwituut waarna verwys word in die Aantekening gedateer 29 September 1949 op Transportakte Nr. 15356/1942 wat lees soos uiteengesit in Paragraaf 1.B hierbo.

C. GEREGTIG tesame met eiendomme nrs. 1 en 2 hierbo en eiendomme nrs. 4 tot 12 hieronder op die voordele van die Serwituut waarna verwys word in die Aantekening gedateer 18 September 1972 op Transportakte nr. 15356/1942 wat lees soos uiteengesit in Paragraaf 1.C. hierbo.

D. ONDERHEWIG aan die bepalings van die endossement ingevolge Artikel 10(1) van Wet 28 van 1969 gedateer 10 Maart 1976 Transportakte Nr. 36614/1973 wat lees soon uiteengesit in Paragraaf 1.D, hierbo.

4. **DIE RESTANT VAN DIE PLAAS Nr. 386, geleë in die Munisipaliteit en Afdeling Stellenbosch, Provinsie Wes-Kaap**

GROOT: 5 342 (VYF DUISEND DRIE HONDERD TWEE EN VEERTIG) Vierkante Meter

OORSPRONKLIK OORGEDRA kragtens Grondbrief uitgereik op 24 Januarie 1691, Ou Stellenbosch Eiendomsbriewe Boekdeel 1, Deel 1, Folio 2 met Kaart daaraan geheg en gehou kragtens Transportakte Nr. T48723/1986.

A. ONDERHEWIG aan die voorwaardes waarna verwys word in Transportaktes Nrs. 11459 gedateer 31 Desember 1897 en 8587 gedateer 18 September 1906.

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B. GEREGTIG op die voordeel van die Serwituut waarna verwys word in die Aantekening gedateer 29 September 1949 op Transportakte Nr. 15356/1942 wat lees soos uiteengesit in Paragraaf 1.B. hierbo.

C. GEREGTIG tesame met eiendomme nrs. 1 tot 3 hierbo en eiendomme nrs. 5 tot 12 hieronder op die voordele van die Serwituut waarna verwys word in die Aantekening gedateer 18 September 1972 op Transportakte Nr. 15356/1942 wat lees soos uiteengesit in Paragraaf 1.C. hierbo.

D. ONDERHEWIG aan die bepalings van die endossement ingevolge Artikel 10(l) van Wet 28 van 1969 gedateer 10 Maart 1976 op Transportakte Nr. 36614/1973 wat lees soos uiteengesit in Paragraaf I.D. hierbo.

5. DIE PLAAS Nr. 1031, geleë in die Munisipaliteit en Afdeling van Stellenbosch, Provinsie Wes-Kaap

GROOT: 9,0364 (NEGE komma NUL DRIE SES VIER) Hektaar

OORSPRONKLIK OORGEDRA kragtens Transportakte Nr. 188 gedateer 30 November 1736 met Kaart daaraan geheg en gehou kragtens Transportakte Nr. T48723/1986.

A. ONDERHEWIG aan die voorwaardes waarna verwys word in Transportaktes Nrs. 11459 gedateer 31 Desember 1897 en 8587 gedateer 18 September 1906.

B. GEREGTIG op die voordeel van die Serwituut waarna verwys word in die Aantekening gedateer 29 September 1949 op Transportakte Nr. 15356/1942 wat lees soos uiteengesit in Paragraaf 1.B hierbo.

C. GEREGTIG tesame met eiendomme nrs. 1 tot 4 hierbo en eiendomme nrs. 6 tot 12 hieronder op die voordele van die Serwituut waarna verwys word in die Aantekening gedateer 18 September 1972 op Transportakte Nr. 15356/1942 wat lees soos uiteengesit in Paragraaf 1.C. hierbo.

6. DIE PLAAS Nr. 1032, geleë in die Munisipaliteit en Afdeling Stellenbosch, Provinsie Wes-Kaap

GROOT: 4 283 (VIER DUISEND TWEE HONDERD DRIE EN TAGTIG) Vierkante Meter

OORSPRONKLIK OORGEDRA kragtens Transportakte Nr. 188 gedateer 30 November 1736 met Kaart daaraan geheg en gehou kragtens Transportakte Nr. T48723/1986.

A. ONDERHEWIG aan die voorwaardes waarna verwys word in Transportaktes Nrs. 11459 gedateer 31 Desember 1897 en 8587 gedateer 18 September 1906.

B. GEREGTIG op die voordeel van die Serwituut waarna verwys word in die Aantekening gedateer 29 September 1949 op Transportakte Nr. 15356/1942 wat lees soos uiteengesit in Paragraaf 1.B. hierbo.

C. GEREGTIG tesame met eiendomme nrs. 1 tot 5 hierbo en eiednomme nrs. 7 tot 12 hieronder op die voordele van die Serwituut waarna verwys word in die Aantekening gedateer 18 September 1972 op Transportakte Nr. 15356/1942 wat lees soos uiteengesit in Paragraaf I.C. hierbo.

For information only

7. DIE PLAAS Nr. 1033, geleë in die Munisipaliteit en Afdeling Stellenbosch, Provinsie Wes-Kaap

GROOT: 2,3198 (TWEE komma DRIE EEN NEGE AGT) Hektaar

OORSPRONKLIK OORGEDRA kragtens Transportakte Nr. 188 gedateer 30 November 1736 met Kaart daaraan geheg en gehou kragtens Transportakte Nr. T48723/1986.

A. ONDERHEWIG aan die voorwaardes waarna verwys word in Transportaktes Nrs. 11459 gedateer 31 Desember 1897 en 8587 gedateer 18 September 1906.

B. GEREGTIG op die voordeel van die Serwituut waarna verwys word in die Aantekening gedateer 29 September 1949 op Transportakte Nr. 15356/1942 wat lees soos uiteengesit in Paragraaf 1.B. hierbo.

C. GEREGTIG tesame met eiendomme nrs. 1 tot 6 hierbo en eiendomme nrs. 8 tot 12 hieronder op die voordele van die Serwituut waarna verwys word in die Aantekening gedateer 18 September 1972 op Transportakte nr. 15356/1942 wat lees soos uiteengesit in Paragraaf 1.C. hierbo.

8. DIE PLAAS Nr 1034, geleë in die Munisipaliteit en Afdeling van Stellenbosch, Provinsie Wes-Kaap

GROOT: 20,9908 (TWINTIG komma NEGE NEGE NUL AGT) Hektaar

OORSPRONKLIK OORGEDRA kragtens Transportakte Nr. 188 gedateer 30 November 1736 met Kaart daaraan geheg en gehou kragtens Transportakte Nr. T48723/1986.

A. ONDERHEWIG aan die voorwaardes waarna verwys word in Transportaktes Nrs. 11459 gedateer 31 Desember 1897 en 8587 gedateer 18 September 1906.

B. GEREGTIG op die voordeel van die Serwituut waarna verwys word in die Aantekening gedateer 29 September 1949 op Transportakte Nr. 15356/1942 wat lees soos uiteengesit in Paragraaf 1.B. hierbo.

C. GEREGTIG tesame met eiendomme nrs. 1 tot 7 hierbo en eiendomme nrs. 9 tot 12 hieronder op die voordele van die Serwituut waarna verwys word in die Aantekening gedateer 18 September 1972 op Transportakte nr. 15356/1942 wat lees soos uiteengesit in Paragraaf 1.C. hierbo.

9. DIE RESTANT VAN DIE PLAAS VLOTTENBURG Nr 387, geleë in die Munisipaliteit en Afdeling van Stellenbosch, Provinsie Wes-Kaap

GROOT: 77,6355 (SEWE EN SEWENTIG komma SES DRIE VYF VYF) Hektaar

OORSPRONKLIK OORGEDRA kragtens Grondbrief uitgereik op 13 Maart 1818 Stellenbosch Erfpagte Boekdeel 4 Nr. 3 met Kaart daaraan geheg en gehou kragtens Transportakte nr. T48723/1986.

A. ONDERHEWIG aan die voorwaardes waarna verwys word in Transportaktes Nrs. 11459 gedateer 31 Desember 1897 en 8587 gedateer 18 September 1906.

For information only

B. WAT BETREF die een-halwe aandeel in die eiendom wat gehou is kragtens Transportakte Nr. 8587/1906.

ONDERHEWIG VERDER aan die voorwaarde daarin genoem wat lees.

"that should the owner of this property or his successors in title be at any time called upon to give transfer of such lots forming part of the property as have been sold by the said Johan Wilhelm Herold Roux and Cornelius Pieter Roux but not yet transferred to the purchasers, he or his successors in title shall be obliged to give transfer thereof to such purchasers;

These Lots which have been sold and deducted but which have not yet been transferred and therefore included in Paragraph (3) are the following : -

1. Lots 644, 646 to 653 in extent 4 461 Square Metres.
2. Lots 654 and 655 in extent 991 Square Metres.
3. Lots 679, 680, 681 to 688, in extent 4 957 Square Metres.
4. Lot 1294 in extent 741 Square Metres.
5. Lot 1295 in extent 463 Square Metres.
6. Lots 1303 to 1306 in extent 2 586 Square Metres.

C. ONDERHEWIG VERDER aan en GEREGTIG op die voordele soos die geval mag wees van die voorwaarde waarna verwys word in die volgende Aantekening gedateer 30 Augustus 1912 op die gemelde twee Transportaktes Nrs. 11459/1897 en 8587/1906, naamlik:

"By deeds of transfer Nos. 6825, 6826 August 1912 certain right of way and right to lay pipes across this property to the Lion Distillery have been conceded in favour of the land held by transfers Nos. 11053 November 1905, 5169 & 5170 July 1910 & an agreement with regard to certain water rights has been entered into subject to conditions as will more fully appear on reference to the said deeds of transfer."

welke Aantekening gelees moet word met die Aantekening aangehaal in Paragraaf F. hieronder.

D. ONDERHEWIG VERDER aan en geregtig op die voordele van die Serwituut waarna verwys word in die volgende Aantekening gedateer 15 November 1944 op Transportakte Nr. 15356/1942, naamlik:

"Registration of Servitude.

(Remainder Para 3)
By Not Deed No. 344 dated 9.5.1944 the rem, of the ppty. held under Para 3 hereof, has been made subject to a serv. of right of way as shown on the diag. annexed thereto for the joint use of the rem. held under Para 3 hereof or any ptn. of such rem. & the ppty. held under Para 2 of Deeds of Trf. Nos. 4860, 4861, 4862 dated 3rd July 1916. Subject to conditions as will more fully appear on reference to the copy annexed hereto."

E. ONDERHEWIG VERDER aan die Serwituut waarna verwys word in die volgende Aantekening gedateer 15 November 1944 op Transportakte Nr. 15356/1942, naamlik:

"Registration of Servitude.

(Remainder Para. 3)

For Reference Only

By Deed of Transfer No. 12002 dated 25/8/1944 the ppty. thereby conveyed (Ptn 8 of Vlottenburg) has been granted the right to the joint use of the right of way over the rem, held under Para 3 hereof & mrk. R.S.T.U.V.W.X.Y. on the diag. annexed to the said deed of Transfer.

As will more fully appear on reference to the said Deed of Trf."

F. ONDERHEWIG VERDER aan die Serwitute waarna verwys word in die volgende Aantekening gedateer 15 November 1944 op Transportakte Nr. 15356/1942, naamlik:

'Remainder of Para 3)

Registration of Serv. & Part Cancellation of Serv.

By Not. Deed 345 dated 14.4.1944 the special conditions referred to in endorsement dated 30 Aug. 1912 on Trfs. 11459/1897 and 8587/1906 relating to certain right of way & right to lay pipes as set out in conditions 1 – 5 in Trfs 6825 & 6826 Aug. 1912 have been cancelled, and the ppty. held under Para 3 hereof has been made subject to :

(a) Servitude of water leading through a pipe line along the line mrk. B M N O K J on diag. annexed to said Not. Deed & from the beacon J along the western edge of the road mrk "geproklameerde Pad 60' na Vlottenbergstasie";

(b) A 4,72 Metre right of way along the line mrk. B.M.N. on said diagram;

(c) Jnt. use of right of way mrk E F G H I J K L on said diag.;

(d) Certain restraint on, boring for water, erecting windmills, ploughing, gardening or manufacturing in certain area in favour of properties held under Paras 4 & 5 of Trf No. 8116/1921.

As will more fully appear on reference to said Not Deed annexed hereto."

G. ONDERHEWIG VERDER aan die Serwituut waarna verwys word in die volgende Aantekening gedateer 15 November 1944 op Transportakte Nr. 15356/1942, naamlik :-

("Remainder Para 3)

Registration of Servitude

By Not Deed No. 346 dated 24 April 1944 the rem. held under para 3 hereof has been made subject to a 12,59 metre right of way as shown on the diag. annexed to the said Not Deed in favour of the ppty held under Trfs. 8583/1906 & 4401/1906.

As will more fully appear on reference to said Not Deed annexed thereto."

H. ONDERHEWIG VERDER aan die Serwituut waarna verwys word in die volgende Aantekening gedateer 29 September 1949 op Transportakte Nr. 15356/1942, naamlik:

"Remdr. Para 3 Servitude.

For information only

By Notarial Deed No. 426 dated 28.6.49 the property held under para 3 of this deed has been made subject to right of way along the existing servitude road indicated on diagram (Servitude) 375/43 in favour of Ptn 4 of the farm Vlottenberg Annex held by DT 16066/49.

As will more fully appear on ref. to the said Notarial Deed. A copy of which is annexed hereto."

I. GEREGTIG op die Serwituut waarna verwys word in die Aantekening gedateer 29 September 1949 op Transportakte Nr. 15356/1942 wat lees soos uiteengesit in Paragraaf 1.B. hierbo.

J. ONDERHEWIG VERDER aan die Serwituut waarna verwys word in die volgende Aantekening gedateer 29 Januarie 1959 op Transportakte Nr. 15356/1942, naamlik:

"Remainder Paras 3 and Para 4 Whole

cancelled

By Notarial Deed No. 9 of 1959 dated 21st November 1958, the owner of the remainder of Paras 3 & 4 (whole) hereof has given and granted to the Electricity Supply Commission the right of perpetuity :

(a) to convey electricity across the said properties by means of cables and/or wires underground or overhead along the line of route indicated by letters BCDE, Ef and H.J. on the diagram No. 6380/57 annexed to the said Notarial Deed.

(b) to lay or construct upon the said ground along the said line of route all such cables and/or wires, poles, standards or appurtenances relating thereto, as may be necessary for the purposes aforesaid, together with the right to use inspect maintain repair alter renew and/or remove all such cables wires, poles standards and/or appurtenances aforesaid.

Subject to conditions as will more fully appear on reference to the said Notarial Deed Vide copy annexed hereto."

K. ONDERHEWIG VERDER aan die onteiening waarna verwys word in die volgende Aantekening gedateer 4 April 1964 op Transportakte Nr. 15356/1942, naamlik :

"ENDORSEMENT IN TERMS OF SECTION 31(6) OF ACT NO. 47 OF 1937 (AS AMENDED).

A Portion of the herein-mentioned property in Para 3 meas ± 600 Square Metres has been expropriated by Divisional Council of Stellenbosch in terms of Sect. 130 Ord. 15/52 Vide Notice of expropriation No. H/2/10 d.d. 31/3/64 filed as exprop. Caveat 43/64 plans in duplicate filed Counterpart."

L. ONDERHEWIG VERDER aan die onteiening waarna verwys word in die volgende Aantekening gedateer 18 Julie 1965 op Transportakte Nr. 15356/1942, naamlik:

"ENDORSEMENT IN TERMS OF SECTION 31(6) OF ACT NO. 47 of 1937 (AS AMENDED).

A portion of the herein-mentioned property in Paras 3 meas. ± 2 741 Square Metres has been expropriated by Divisional Council of Stellenbosch in terms of Sect. 130 Ord. 15/52 as amended.

For Information only

Vide Notice of expropriation No. H/2/10 d.d. 28/4/65 filed as exprop, caveat 231/65 plans in duplicate filed Counterpart."

M. ONDERHEWIG VERDER aan die Serwituut waarna verwys word in die volgende Aantekening gedateer 2 Desember 1965 op Transportakte Nr. 15356/1942, naamlik:

"Restant Para 3

By Notarial Deed No. 854 1965 d.d. 29/10/65 the right has been granted to Escom to convey electricity over the property hereby conveyed together with ancillary rights, and subject to conditions as will more fully appear on reference Notarial Deed and diagram, grosse whereof is hereto annexed."

N. ONDERHEWIG VERDER aan die onteiening waarna verwys word in die volgende Aantekening gedateer 18 Mei 1970 op Transportakte Nr.15356/1942 (welke Aantekening op 5 Desember 1968 op die Aktekantoor-afskrif van gemelde Akte aangebring is), naamlik:

"ENDORSEMENT IN TERMS OF SECTION 31(6) OF ACT NO. 47 OF 1937 (AS AMENDED.

A portion of the herein mentioned property in Para. 3 meas. ± 9 282 Square Metres has been expropriated by Divisional Council of Stellenbosch in terms of Sect 130 of Ord.15 of 1952. Vide Notice of expropriation No. H/2/11 d.d. 8-11-1968 filed as exprop. caveat 869/68 plans in duplicate filed herewith."

O. GEREGTIG saam met eiendomme nrs. 1 tot 8 hierbo en nrs. 10 tot 12 hieronder op die voordele van die Serwituut waarna verwys word in die Aantekening gedateer 18 September 1972 op Transportakte Nr. 15356/1942 wat lees soos uiteengesit in Paragraaf 1.C. hierbo.

Nodt Monument?

P. ONDERHEWIG VERDER aan die bepalings van die endossement ingevolge Artikel 10(1) van Wet 28 van 1969 gedateer 10 Maart 1976 op Transportakte Nr. 36614/1973 wat lees soos uiteengesit in Paragraaf 1.D hierbo.

Q. ONDERHEWIG VERDER aan die onteiening waarna verwys word in die volgende Aantekening gedateer 4 Januarie 1995 op Transportakte Nr.48723/1986, naamlik:

ENDOSSEMENT IN TERME VAN ARTIKEL 31(6) VAN WET NO. 47 OF 1937 (SOOS GEWYSIG).

'n Gedeelte van die Plaas No 387, groot 546 vierkante meter is in terme van Artikel 27 van Ordonnasie No 19 van 1976 deur die Distriksraad van Stellenbosch onteien. Vide onteieningskennisgewing EX 117/1987 gedateer 4/3/1987 planne geliasseer as onteieningscaveat EX117/87 planne in tweevoud geliasseer hiermee.

G. ONDERHEWIG verder aan die bepalings van 'n endossement gedateer 25 Januarie 1999 op Transportakte Nr. T48723/1986 naamlik:

'n Huurkontrakgebied Nr 2, vir die tydperk van 29 jaar synde: 1/7/1996 tot 30/6/2025, Groot 14,1259 hektaar ten gunste van die Trustees vir die huidige van die KIRSTEN EIENDOMSTRUST No T1223/1994, geregistreer kragtens Notariële Huurkontrak K 71/1999 L.

For reference only

10. DIE RESTANT VAN DIE PLAAS VREDENBURG Nr. 388, geleë in die Munisipaliteit en Afdeling van Stellenbosch, Provinsie Wes-Kaap

GROOT: 32,6477 (TWEE EN DERTIG komma SES VIER SEWE SEWE) Hektaar

OORSPRONKLIK OORGEDRA kragtens Grondbrief uitgereik op 4 Augustus 1831, Stellenbosch Erfpagte Boekdeel 9, Nr. 27 met Kaart daaraan geheg en gehou kragtens Transportakte Nr. T48723/1986.

A. ONDERHEWIG aan die voorwaardes waarna verwys word in Transportaktes Nrs. 11459 gedateer 31 Desember 1897 en 8587 gedateer 18 September 1906.

B. GEREGTIG op die voordeel van die Serwituut waarna verwys word in die Aantekening gedateer 29 September 1949 op Transportakte Nr. 15356/1942 wat lees soos uiteengesit in Paragraaf 1.B. hierbo.

C. ONDERHEWIG verder aan die Serwituut waarna verwys word in Aantekening gedateer 29 September 1959 op Transportakte Nr. 15356/1942 wat lees soos uiteengesit in Paragraaf 9.J. hierbo.

D. GEREGTIG tesame met eiendomme nrs. 1 tot 9 en nrs. 11 en 12 hieronder op die voordele van die Serwituut waarna verwys word in die Aantekening gedateer 18 September 1972 op Transportakte Nr. 15356/1942 wat lees soos uiteengesit in Paragraaf 1.C hierbo.

E. ONDERHEWIG verder aan die bepalings van 'n endossement gedateer 25 Januarie 1999 op Transportakte Nr. T48723/1986 naamlik:

'n Huurkontrakgebied Nr 3, vir die tydperk van 29 jaar synde: 1/7/1996 tot 30/6/2025 , Groot 10,4262 hektaar ten gunste van die Trustees vir die huidige van die KIRSTEN EIENDOMSTRUST No T1223/1994, geregistreer kragtens Notariële Huurkontrak K 71/1999L.

F. ONDERHEWIG verder aan die bepalings van 'n endossement gedateer 14 Junie 2006 op Transportakte Nr. T48723/1986 naamlik:

'n Huurkontrakgebied Nr 2, vir die tydperk van 29 jaar synde: 1/7/2003 tot 30/6/2032, Groot 26,5007 hektaar ten gunste van die Trustees vir die huidige van die KIRSTEN EIENDOMSTRUST No T1223/1994, geregistreer kragtens Notariële Huurkontrak K 553/2006 L.

11. RESTANT VAN GEDEELTE 5 VAN DIE PLAAS VLOTTENBURG Nr 387, geleë in die Munisipaliteit en Afdeling van Stellenbosch, Provinsie Wes-Kaap

GROOT: 3 635 (DRIE DUISEND SES HONDERD VYF EN DERTIG) Vierkante Meter

OORSPRONKLIK OORGEDRA kragtens Transportakte Nr. 965 gedateer 7 Februarie 1905 met Kaart daaraan geheg en gehou kragtens Transportakte Nr. T48723/1986.

A. ONDERHEWIG aan die voorwaardes waarna verwys word in Transportakte Nr. 5575/1914.

B. GEREGTIG op die voordeel van die Serwituut waarna verwys word in die Aantekening gedateer 29 September 1949 op Transportakte Nr. 15356/1942 wat lees soos uiteengesit in Paragraaf 1.B. hierbo.

For information only

C. ONDERHEWIG VERDER aan die onteiening waarna verwys word in die volgende Aantekening gedateer 4 April 1964 op Transportakte Nr. 15356/1942, naamlik :

"ENDORSEMENT IN TERMS OF SECTION 31(6) OF ACT 47 OF 1937 (AS AMENDED)

A Portion of the herein-mentioned property in Para 5 meas. ± 1 199 Square Metres has been expropriated by Divisional Council of Stellenbosch in terms of Sect. 130 Ord. 15/1952 as amended. Vide Notice of expropriation No. H/2/10 d.d. 31-3-64 filed as exprop, caveat 43/64 plans in duplicate filed Counterpart."

D. ONDERHEWIG VERDER aan die onteiening waarna verwys word in die volgende Aantekening gedateer 18 Mei 1970 op Transportakte Nr. 15356/1942 (welke Aantekening op 7 November 1967 aangebring is op die Aktekantoor-afskrif van gemelde Akte), naamlik:

"ENDORSEMENT IN TERMS OF SECTION 31(6) OF ACT 47 OF 1937 (AS AMENDED)

A portion of the herein-mentioned property in Para 5 meas. ± 5 710 Square Metres has been expropriated by the Divisional Council of Stellenbosch in terms of Section 130 Ord. 15 of 1952 as amended. Vide Notice of expropriation No. H210 d.d. 13/10/1967 filed as exprop. caveat 686/67 plans in duplicate filed herewith."

E. GEREGTIG saam met eiendomme nrs. 1 tot 10 en nr. 12 hieronder op die voordele van die Serwituut waarna verwys word in die Aantekening gedateer 18 September 1972 op Transportakte Nr. 15356/1942 wat lees soos uiteengesit in Paragraaf I.C. hierbo.

12. **DIE RESTANT VAN GEDEELTE 12 VAN DIE PLAAS VLOTTENBURG Nr. 387, geleë in die Munisipaliteit en Afdeling van Stellenbosch, Provinsie Wes-Kaap**

GROOT: 991 (NEGE HONDERD EEN EN NEGENTIG) Vierkante Meter

OORSPRONKLIK OORGEDRA kragtens Transportakte Nr. 8586 gedateer 18 September 1906 met Kaart daaraan geheg en gehou kragtens Transportakte Nr. T48723/1986.

A. ONDERHEWIG aan die voorwaardes waarna verwys word in Transportakte Nr. 13435/1919.

B. GEREGTIG op die voordeel van die Serwituut waarna verwys word in die Aantekening gedateer 29 September 1949 op Transportakte Nr. 15356/1942 wat lees soos uiteengesit in Paragraaf 1.B hierbo.

C. ONDERHEWIG VERDER aan die onteiening waarna verwys word in die volgende Aantekening gedateer 18 Mei 1970 op Transportkte Nr. 15356/1942 (welke Aantekening op 7 November 1967 op die Aktekantoor-afskrif van gemelde Titel aangebring is), naamlik:

"ENDORSEMENT IN TERMS OF SECTION 31(6) OF ACT NO. 47 OF 1937 (AS AMENDED)

A portion of the herein-mentioned property in para 7 meas. ± 5 Square Metres has been expropriated by the Divisional Council of Stellenbosch in terms of Section 130

Ord. 15 of 1952 as amended. Vide Notice of expropriation H2 10 d.d. 13/10/1967 filed as exprop. caveat 686/67 plans in duplicate filed herewith."

D. GEREGTIG tesame met eiendomme nrs. 1 tot 11 hierbo op die voordele van die Serwituut waarna verwys word in die Aantekening gedateer 18 September 1972 op Transportakte Nr. 15356/1942 wat lees soos uiteengesit in Paragraaf I.C. hierbo.

13. GEDEELTE **18 ('n** GEDEELTE VAN GEDEELTE **14) VAN DIE GEKONSOLIDEERDE PLAAS VLOTTENBURG ANNEX Nr. 390, geleë in die. Munisipaliteit en Afdeling van Stellenbosch, Provinsie Wes-Kaap**

GROOT: 1,1681 (EEN komma EEN SES AGT EEN) Hektaar

OORSPRONKLIK OORGEDRA kragtens Transportakte Nr. 16068/49 met Kaart Nr. 9786/48 daaraan geheg en gehou kragtens Transportakte Nr. T48723/1986.

A. ONDERHEWIG aan die voorwaardes waarna verwys word in Transportakte Nr. 4231/1897 (Paragraaf 1).

B. ONDERHEWIG VERDER aan die onteiening waarna verwys word in die volgende Aantekening gedateer 4 April 1964 op Transportakte Nr. 16068/1949, naamlik :-

"ENDORSEMENT IN TERMS OF SECTION 31(6) OF ACT 47 OF 1937 (AS AMENDED)

Portions of the herein mentioned properties in Paras 1, 4 & 5 meas. 1 884 sq. m., 1 028 sq. m. and 257 sq. m. respectively have been expropriated by Div. Council of Stellenbosch in terms of Sect. 130 of Ord. 15/52 Vide Notice of expropriation No. H/2/10 d.d. 31/3/64 filed as exprop. caveat 43/64;"

14. **GEDEELTE 15 VAN DIE GEKONSOLIDEERDE PLAAS VLOTTENBURG ANNEX Nr 390, geleë in die Munisipaliteit en Afdeling van Stellenbosch, Provinsie Wes-Kaap**

GROOT: 1 097 (EEN DUISEND EN SEWE EN NEGENTIG) Vierkante Meter

OORSPRONKLIK OORGEDRA kragtens Transportakte Nr. 7787/49 met Kaart Nr. 9787/48 daaraan geheg en gehou kragtens Transportakte Nr. T48723/1986.

ONDERHEWIG aan die voorwaardes waarna verwys word in Transportakte Nr. T4231 gedateer 26 Mei 1897 (Paragraaf VIII).

15. GEDEELTE **4 VAN** DIE GEKONSOLIDEERDE **PLAAS** VLOTTENBURG **ANNEX Nr. 390, geleë in die Munisipaliteit** en **Afdeling van Stellenbosch, Provinsie Wes-Kaap**

GROOT: 2 405 (TWEE DUISEND VIER HONDERD EN VYF) Vierkante Meter

OORSPRONKLIK OORGEDRA kragtens Transportakte Nr. 10983 gedateer 29 September 1904 met Kaart daaraan geheg en Transportakte Nr. 10984 gedateer 29 September 1904 en gehou kragtens Transportakte Nr. T48723/1986.

A. ONDERHEWIG aan die voorwaardes waarna verwys word in Transportakte Nr. 6310/1913.

For Information Only

B. ONDERHEWIG VERDER aan die onteiening waarna verwys word in die Aantekening gedateer 4 April 1964 op Transportakte Nr. 16068/1949 wat lees soos uiteengesit in Paragraaf 13.B, hierbo.

16. **GEDEELTE 1 (GOEDGEDACHT) VAN DIE PLAAS BREEDE LAAGTE Nr. 158, geleë in die Munisipaliteit van Breede Vallei, Afdeling Worcester, Provinsie Wes-Kaap**

GROOT: 1016,8919 (EEN DUISEND EN SESTIEN komma AGT NEGE EEN NEGE) Hektaar

EERSTE OORGEDRA kragtens Transportakte Nr. 1637/1909 met Kaart Nr. 1936/1908 daarby aangeheg en gehou kragtens Transportakte Nr. T. 54222/1988.

A. ONDERHEWIG aan die voorwaardes waarna verwys word in Transportakte Nr. 5860 gedateer 15 Julie 1914

17. **GEDEELTE 1 VAN DIE PLAAS BOTHAS HOEK Nr. 165, geleë in die Munisipaliteit van Breede Vallei, Afdeling Worcester, Provinsie Wes-Kaap**

GROOT: 397,7653 (DRIE HONDERD SEWE EN NEGENTIG komma SEWE SES VYF DRIE) Hektaar

EERSTE OORGEDRA kragtens Sertifikaat van Geregistreerde Titel Nr. 14651/1972 met Kaart Nr. 243/71 daarby aangeheg en gehou kragtens Transportakte Nr. T54222/1988.

A. ONDERHEWIG aan die voorwaardes waarna verwys word in Transportakte Nr. 5860 gedateer 15 Julie 1914.

18. **GEDEELTE 4 ('n GEDEELTE VAN GEDEELTE 1) VAN DIE PLAAS NOUGA Nr. 156, geleë in die Munisipaliteit van Breede Vallei, Afdeling Worcester, Provinsie Wes-Kaap**

GROOT: 263,9974 (TWEE HONDERD DRIE EN SESTIG komma NEGE NEGE SEWE VIER) Hektaar

EERSTE OORGEDRA kragtens Sertifikaat van Geregistreerde Titel Nr. 14651/1972 met Kaart nr. 245/71 daarby aangeheg en gehou kragtens Transportakte Nr. T54222/1988

A. ONDERHEWIG aan die voorwaardes waarna verwys word in Transportakte Nr. 5860 gedateer 15 Julie 1914.

B. ONDERHEWIG VERDER aan die voorwaardes soos genoem in Sertifikaat van Eenvormige Titel Nr. 3273 gedateer 1 Maart 1947 uitgereik kragtens die toestemming van die Minister van Lande van die Staat, vry van enige Besitsvoorwaardes of Reg voorbehou ten gunste van die Staat.

NIE ONDERHEWIG aan 'n gedeelte van voorwaarde B op bladsy 9, in terme van die Wysigingswet op die Registrasie van Myntitels, Wet 24 van 2003.

For Information Only

19. DIE PLAAS Nr. 858, geleë in die Munisipaliteit van Breede Vallei, Afdeling Worcester, Provinsie Wes-Kaap

GROOT: 5 237,6831 (VYF DUISEND TWEE HONDERD SEWE EN DERTIG komma SES AGT DRIE EEN) Hektaar

EERSTE GEREGISTREER en steeds gehou kragtens Sertifikaat van Verenigde Titel Nr T43329/2009 met Kaart LG No 5405/2008 daarby aangeheg.

A. TEN AANSIEN van die figuur K L M N gemerk op die gemelde Kaart LG Nr. 5405/2008:

(i) Onderhewig aan die voorwaardes waarna verwys word in Akte van Transport Nr. T5325/1930 gedateer 26 Junie 1930;

(ii) Onderhewig verder aan volgens die volgende voorwaarde in die Akte van Toekenning gedateer 1 November 1838 (Worcester Erfpagte Boekdeel 8 No. 13) uiteengesit:

"The land thus granted being further subject to all such duties and regulations as either are already or shall in future be established respecting lands granted under similar tenure."

NIE ONDERHEWIG aan 'n gedeelte van voorwaarde A (ii) op bladsy 2 kragtens Artikel 53 van die Wysigingswet op die Registrasie van Myntitels, Wet 24 van 2003.

B. TEN AANSIEN van die figuur A B C D E F G H J K N P Q Z gemerk op die gemelde Kaart LG Nr. 5405/2008:

Onderhewig aan die voorwaardes waarna verwys word in Akte van Transport Nr. T17026/1953 gedateer 30 Oktober 1953.

C. TEN AANSIEN van die figuur Z Q R S T U u middel van Touwsrivier V W X Y gemerk op die gemelde Kaart LG Nr. 5405/2008:

i. ONDERHEWIG aan die voorwaardes waarna verwys word in Transportakte Nr. 5300 gedateer 25 Junie 1934.

ii. ONDERHEWIG VERDER aan die voorwaardes opgelê in Transportakte Nr. 683 gedateer 20 Januarie 1947 en wat na verwys word in die endossement op Transportakte Nr. 3165 gedateer 8 April 1940, wat soos volg lui:-

Restant: Registrasie van Serwituut:-
Kragtens Akte van Transport Nr. 683 ged. 20.1.1947 is die eiendom (ged. 3) daardeur getransporteer geregtig op alle waterregte waarop die hieringemelde eiendom geregtig is uit die verkeerdevlei besproeiingsdam soos meer breedvoerig sal blyk uit gesegde akte van transport.

iii. ONDERHEWIG VERDER en GEREGTIG OP die voordeel van die terme van die Notariële Akte van Serwituut gedateer 22 Januarie 1954 Nr. 159, en wat na verwys word in die endossement gedateer 12 Maart 1954 op gesegde Akte van Transport Nr. 3165 gedateer 8 April 1940, wat soos volg lees:-

"Registrasie van Serwituut: Restant: Kragtens Notariële Akte gedateer 22.1.1954 vandag geregistreer onder Nr. 159/54 het die eienaar van die restant van die eiendom hieronder gehou afstand gedoen van alle regte om water te pomp of te lei

For information only

uit 'n sekere dam of uitkeerdam wat beskrywe word onder para. 5 in Akte van Transport Nr. 3635/54 en geskep in Akte van Transport Nr. 7210/1953 wat hy mag besit as oewereienaar ten gunste van die eienaar van die restant van Gedeelte 3 van die plaas Zeekoegat Worcester gehou kragtens Akte van Transport Nr. 3635/54, met die voorbehoud van sy reg om ook water met vergunning te pomp en verder bykomde bepalings, soos meer volledig sal blyk uit gesegde Notariële Akte.

iv. KRAGTENS die volgende endossement op Transportakte Nr. T54222/1988 gedateer 5/12/1996 is die eiendom geregtig, kragtens Transportakte Nr. T96534/1996, op water uit die Verkeerdevlei Besproeiingsdam waarop gedeelte 3 van die plaas Lettas Kraal nr. 162, Afdeling Worcester voorheen geregtig was soos volledig sal blyk uit genoemde transportakte.

20. GEDEELTE 12 VAN DIE PLAAS NOUGA Nr. 156, geleë in die Munisipaliteit van Breede Vallei, Afdeling Worcester, Provinsie Wes-Kaap

GROOT: 1 349,0695 (EEN DUISEND DRIE HONDERD NEGE EN VEERTIG komma NUL SES NEGE VYF) Hektaar

EERSTE GEREGISTREER en steeds gehou kragtens Sertifikaat van Verenigde Titel Nr T43334/2009 met Kaart LG No 747/2008 daarby aangeheg.

I. WAT betref die figuur gemerk G a b c d e f C D E F aangedui op Kaart LG No 747/2008:

A. ONDERHEWIG aan die voorwaardes waarna verwys word in Transportakte Nommer T3274/1947.

B. ONDERHEWIG VERDER aan die voorwaardes waarna verwys word in Transportakte Nommer T5860/1914, ten opsigte van die Restant van die figuur A B X E F G H aangedui op Kaart Nommer 5477/1945.

C. ONDERHEWIG VERDER soos vermeld in Sertifikaat van Eenvormige Titel Nommer T 3274/1947, uitgereik met die toetemming van die Minister van Lande, vry van enige regte van eiendomsreg voorbehou ten gunste van die Staat.

NIE ONDERHEWIG aan 'n gedeelte van voorwaarde I.C. op bladsy 3 kragtens Artikel 53 van die Wysigingswet op die Registrasie van Myntitels, Wet 24 van 2003.

D. ONDERHEWIG VERDER aan die volgende voorwaardes waarna verwys word in Transportakte Nommer T46113/2007 soos opgelê deur die Breede Vallei Munisipaliteit in terme van Artikel 25(1) van Ordonnansie 15 van 1985 by die goedkeuring van die onderverdeling, watter voorwaardes soos volg lees:

"The person who at any time is the owner of each erf directly involved in the subdivision shall be required, without compensation:

(a) to allow gas mains, electricity, telephone and television cables and/or wires, and main and/or other waterpipes and the sewage and drainage, including stormwater, of any other erf or erven to be conveyed across the relevant erf, and surface installations such as mini-substations, meter kiosks and service pillars to be installed thereon if considered necessary by the Council in such manner and position as may from time to time be reasonable required; this shall include the right of access to the erf at any time reasonable time for the purposes of construction, altering, removing

For Information Only

or inspection of any works connected with the above.

(b) to receive such material or permit such excavation on the erf as may be required to allow use of the full width of an abutting street and provide a safe and proper slope to its bank necessitated by differences between the level of the street as finally constructed and the level of the erf, unless he elects to build retaining walls to the satisfaction of and within a period to be determined by the Council."

II. WAT BETREF die figuur gemerk A B f e d c b a G H J K L M op Kaart L G No 747/2008.

A. ONDERHEWIG :

(i) Ten opsigte van die figuur gemerk AbxU op Kaart Nommer 244/1971 aan die voorwaardes waarna verwys word in Transportakte Nommer T5299/1934;

(ii) Ten opsigte van die figuur gemerk OTxBCDEFGHJKLMN op Kaart Nommer 244/1971 aan die voorwaardes waarna verwys word in Transportakte Nommer T5860/1914;

(ii) Ten opsigte van albei die gesegde figure AbxU en OTxBCDEFGHJKLMN op Kaart Nommer 244/1971 onderhewig aan die voorwaardes soos gemeld in Sertifikaat van Eenvormig Titel Nommer T3273/1947 uitgereik met die toestemming van die Minister van Lande, vry van enige eiendomsreg voorbehou ten gunste van die Staat.

NIE ONDERHEWIG aan 'n gedeelte van voorwaarde A (iii) op bladsy 4 kragtens Artikel 53 van die Wysigingswet op die Registrasie van Myntitels, Wet 24 van 2003.

(iv) Ten opsigte van die figuur gemerk TvwOPQRS op Kaart Nommer 244/1971 onderhewig aan die voorwaardes waarna verwys word in genoemde Sertifikaat van Eenvormige Titel Nommer T3273/1947.

NIE ONDERHEWIG aan 'n gedeelte van voorwaarde A (iv) op bladsy 5 kragtens Artikel 53 van die Wysigingswet op die Registrasie van Myntitels, Wet 24 van 2003.

B. NIE ONDERHEWIG aan voorwaarde B op bladsy 5 kragtens Artikel 53 van die Wysigingswet op die Registrasie van Myntitels, Wet 24 van 2003.

WESHALWE die Komparant afstand doen van al die regte en titel wat die gesegde **VREDENBURGH LANDGOED (EIENDOMS) BEPERK** voorheen op genoemde eiendom gehad het en gevolglik ook erken dat hy geheel en al van die besit daarvan onthef en nie meer daartoe geregtig is nie, en dat, kragtens hierdie akte, bogenoemde **VREDENHEIM (EIENDOMS) BEPERK**, die ampsopvolgers in titel of regsverkrygendes tans en voortaan

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daartoe geregtig is, ooreenkomstig plaaslike gebruik, behoudens die regte van die Staat en erken hy ten slotte dat die koopprys van die eiendom wat hiermee getransporteer word die bedrag van **R110 083 034.00 (EEN HONDERD EN TIEN MILJOEN DRIE EN TAGTIG DUISEND EN VIER EN DERTIG RAND)** is.

TEN BEWYSE WAARVAN EK, die genoemde Registrateur van Aktes, tesame met die Komparant hierdie Akte onderteken en dit met die Ampseël bekragtig het.

ALDUS GEDOEN EN VERLY op die kantoor van die REGISTRATEUR VAN AKTES te **KAAPSTAD** op 16 April 2010

q.q. Handtekening van komparant

In my teenwoordigheid

Registrateur van Aktes

For Information Only

T 17126/2010

Para 9

ONTEIENING DEUR	EXPROPRIATED BY
PROVINCIAL GOVERNMENT OF THE WESTERN CAPE	
VAN /OF **PORTION OF THE WITHIN PROPERTY**	
GROOT ONGEVEER / MEASURING APPROXIMATELY 0,1918 HA	
EX 87/2013	
	..... REGISTRATEUR / REGISTRAR KAAPSTAD /CAPETOWN

I

for further
end see pg 22

For Information Only

T 17 26 2010

Para 9

ONTEIENING DEUR	EXPROPRIATED BY
	PROVINCIAL GOVERNMENT OF THE WESTERN CAPE
VAN / OF	**PORTION OF THE WITHIN PROPERTY**
GROOT ONGEVEER / MEASURING APPROXIMATELY	0,1979 HA
EX 115/2013	
	..... REGISTRATEUR / REGISTRAR KAAPSTAD / CAPETOWN

II

Para 9
Endorsement ito Section 31(7) Act 47/1937

EX 87/2013 & EX 115/2013 has now been cancelled vide application filed as BC 24342/2015.

III

25/5/2015

Deeds Office
Cape Town

Registrar of Deeds

for further end
see pg 23

For Information Only

pg23

T 71 26 / 2010

Para 9

ONTEIENING DEUR	EXPROPRIATED BY
PROVINCIAL GOVERNMENT OF THE WESTERN CAPE	
VAN / OF **PORTION OF THE WITHIN PROPERTY**	
GROOT ONGEVEER / MEASURING APPROXIMATELY 0,2023 HA	
EX 56/2015	
20/8/2015	..... REGISTRATEUR / REGISTRAR KAAPSTAD / CAPETOWN

IV

for further end see pg 24

For Information Only

Para 9

ONTEIENING DEUR	EXPROPRIATED BY
PROVINCIAL GOVERNMENT OF THE WESTERN CAPE	
VAN/ OF **A PORTION OF THE WITHIN PROPERTY**	
GROOT ONGEVEER / MEASURING APPROXIMATELY **5,9527 HA**	
EX 9/2021	..... REGISTRATEUR / REGISTRAR KAAPSTAD /CAPETOWN

V

Para 9

ONTEIENING DEUR	EXPROPRIATED BY
PROVINCIAL GOVERNMENT OF THE WESTERN CAPE	
VAN /OF **A PORTION OF THE WITHIN PROPERTY**	
GROOT ONGEVEER / MEASURING APPROXIMATELY **1,5382 HA**	
EX 10/2021	..... REGISTRATEUR / REGISTRAR KAAPSTAD /CAPETOWN

VI

for further end

see pg 25

For Information Only

T 17126/2010

Para 12.

ONTEIENING DEUR	EXPROPRIATED BY
PROVINCIAL GOVERNMENT OF THE WESTERN CAPE	
VAN / OF	PORTION OF THE WITHIN PROPERTY
GROOT ONGEVEER / MEASURING APPROXIMATELY	0,0149 HA
EX 11/2021	
	..... REGISTRATEUR / REGISTRAR KAAPSTAD / CAPETOWN

VIII

for further end see pg 26

For Information Only

T 17126 2010

Para 13

ONTEIENING DEUR	EXPROPRIATED BY
PROVINCIAL GOVERNMENT OF THE WESTERN CAPE	
VAN/OF.	**PORTION OF THE WITHIN PROPERTY**
GROOT ONGEVEER / MEASURING APPROXIMATELY	0,5940 HA
EX 7/2021	
	REGISTRATEUR / REGISTRAR KAAPSTAD / CAPE TOWN

for further
and see Pg 27.

For Information Only

T 17126/2010

Para 15

ONTEIENING DEUR	EXPROPRIATED BY
PROVINCIAL GOVERNMENT OF THE WESTERN CAPE	
VAN / OF **PORTION OF THE WITHIN PROPERTY**	
GROOT ONGEVEER/ MEASURING APPROXIMATELY 0,1917HA	
EX 8/2021	
	..... REGISTRATEUR / REGISTRAR KAAPSTAD /CAPETOWN

for further and see pg 28.

For Information Only

28

T 17126/2010

Para 9

CERTIFICATE OF REGISTERED TITLE ISSUED

TEN OPSIGTE VAN / IN RESPECT OF Ptn 33 = 3,84m²

RESTANT / REMAINDER 76,8220ha

8 T

REGISTRATEUR/REGISTRAR

Para 9

CERTIFICATE OF REGISTERED TITLE ISSUED

TEN OPSIGTE VAN / IN RESPECT OF Ptn 38 = 2,1862ha

RESTANT / REMAINDER 74,6358ha

9 T

REGISTRATEUR/REGISTRAR

Paras 13 & 15

CERTIFICATE OF CONSOLIDATED TITLE ISSUED

NOU BEKEND AS / NOW KNOWN AS The Farm No 1559 = 4,2269ha

10 T

REGISTRATEUR/REGISTRAR

VIR ENDOSSEMENTE KYK BLADSY / FOR ENDORSEMENTS SEE PAGE 29

For information only

OFFICE COPY

Friedlaender, Burger & Volkmann - Land Surveyors - REVISED1

SIDES	Metres	ANGLES OF DIRECTION		CO-ORDINATES Y System WG 19°	X
		Constants :		0,00	0,00
A B	52,06	198 19 30	A	+18 674,78	+3 759 161,26
B C	45,10	253 23 30	B	+18 658,41	+3 759 111,84
C D	62,97	343 23 20	C	+18 615,19	+3 759 098,95
D E	62,97	253 22 50	D	+18 597,19	+3 759 159,29
E F	135,29	343 22 20	E	+18 536,85	+3 759 141,28
F G	81,69	343 29 30	F	+18 498,14	+3 759 270,92
G H	31,48	73 29 30	G	+18 474,93	+3 759 349,24
H J	7,14	343 29 30	H	+18 505,11	+3 759 358,18
J K	39,93	311 34 40	J	+18 503,08	+3 759 365,03
K L	196,41	60 08 20	K	+18 473,21	+3 759 391,52
L M	17,85	172 12 30	L	+18 643,54	+3 759 489,32
M N	100,91	210 30 10	M	+18 645,96	+3 759 471,63
N P	54,85	175 27 00	N	+18 594,74	+3 759 384,69
P Q	100,64	134 43 30	P	+18 599,06	+3 759 330,51
Q A	98,52	177 32 40	Q	+18 670,56	+3 759 259,69
EXCLUDED FIGURE					
R S	29,04	240 20 40	R	+18 631,93	+3 759 185,13
S T	32,37	343 42 30	S	+18 606,69	+3 759 170,76
T U	21,56	60 20 40	T	+18 597,61	+3 759 201,83
U R	31,49	150 20 40	U	+18 616,35	+3 759 212,50
	148	HELDW	△	+12 058,73	+3 767 943,05
	334	STEL 11	△	+ 6 520,29	+3 763 434,19

S.G. No. 2658/2023

Approved.

for Surveyor - General

Date : 05-02-2024

SHEET 1 OF 2 SHEETS

Components:

1. The figure j1f1GH represents Portion 4 of the Farm Vlottenburg No. 387, vide Diagram No. 120/1904, D/T 1905- -964
2. The figure g1j1J represents Portion 11 of the Farm Vlottenburg No. 387, vide Diagram No. 2485/1906, D/T 1906- -8585
3. The figure ABCDEF1g1h1Q excluded figure RSTU represent Portion 48 of the Farm Vlottenburg No. 387, vide Diagram No. 2654/2023, D/T
4. The figure p1q1r1s1 represents Portion 4 of the Farm Vlottenburg Annex No. 390, vide Diagram No. 10978/1904, D/T 1904- -10983
5. The figure n1g1Jk1m1 represents Portion 10 of the Farm Vlottenburg Annex No. 390, vide Diagram No. 2486/1906, D/T 1906- -8521
6. The figure Qh1g1n1m1k1JKr1c1p1s1LMNP represents Portion 18 of the Farm Vlottenburg Annex No. 390, vide Diagram No. 9786/1948, D/T 1949- -16068

The figure ABCDEFGHJKLMNPQ excluded figure RSTU represents 4,2269 hectares of land, being

FARM No. 1625 and comprises 1. to 6. as above

Situate in the Stellenbosch Municipality
Administrative District of Stellenbosch
Province of Western Cape
Surveyed in June - July 2023
by me

PLS 1354 M R Stuart-Fox Pr Land Surveyor

Approved i.t.o. Section 60 of Municipal Land Use Planning Bylaw
Ref: LU/14173
Date: 31/05/2023

This diagram is annexed to No. CT. 47521/2025
Dated
i.f.o.

Registrar of Deeds

The original diagrams are as quoted above

File No. Stel. 387 Vol. 3
S.R. No. E1615/2023
Comp. BHSY-4262 (M3166)
BHSZ-31 (M3169)
BHSY-42 (M3188)
LPI C0670000

FOR ENDORSEMENTS SEE BACK OF DIAGRAM

Farm 1625 Stellenbosch

OFFICE COPY

Prudlicenser, Burger & Wilkens - Land Surveyors - REVISION

S.G. No.
2658/2028

Approved,

for
Surveyor - General
Date : 14-02-2029

SHEET 2 OF 2 SHEETS

Beacon Descriptions

B C ..... 12mm Iron peg
N ..... Iron standard
F J ..... 12mm Drill hole in concrete
All other beacons ..... 16mm Iron peg

Servitude notes:

1. The figure a1b1c1d1 represents a servitude Right of way, vide Diagram No. 9648/2028, D/T
2. The figure e1z1f1g1 represents a servitude area, vide Diagram No. 9646/1949,

GENERAL PLAN No. 1490/2007
ERF 42 VLOTTENBURG

PORTION 3
FARM VLOTTENBURG
No. 367

Ptn 1

Ptn 2

Ptn 3

Ptn 4

PORTION 46
FARM VLOTTENBURG No. 367

DIVISIONAL ROAD No. 1625 (VLOTTENBURG ROAD 16.45m)

PORTION 36
FARM VLOTTENBURG
ANNEX No. 390

PORTION 37
FARM VLOTTENBURG
ANNEX No. 390

PORTION 48
FARM VLOTTENBURG
No. 367

PORTION 49
FARM VLOTTENBURG
ANNEX No. 390

FARM No. 1625

MAIN ROAD No. 168 (BAARD RUSSELL ROAD 12.56m)

T N

SCALE 1 : 1000

INSET
Scale 1:1000

PTN. 10
FARM
VLOTTENBURG
No. 367

FARM No. 1625

Administrative District of Stellenbosch

Surveyed in June - July 2028
by me

PJS 1864 W R Stuart-Fox Pr Land Surveyor

Part. 1626 Stellenbosch

THE FOLLOWING DEDUCTIONS HAVE BEEN MADE FROM THIS DIAGRAM

SURVEY [redacted]	DIAGRAM NO.	SUBDIVISION	AREA HA./SQ. M.	TRANSFER NO.	INITIALED	REMDR.
1615/2023	2657/2023	Ptn 1	1,3483 Ha	47523/2025	DA	2,8636 Ha
1615/2023	2658/2023	Ptn 2	1,9912 Ha	47524/2025	DA	8524m²
1615/2023	2659/2023	Ptn 3	4696 m²	47525/2025	DA	4228m²
1615/2023	2660/2023	Ptn 4	4228 m²	47526/2025	DA	0

Leaving No Remainder

OFFICE COPY

Friedlaender, Burger & Volkmann - Land Surveyors

SIDES Metres		ANGLES OF DIRECTION		CO-ORDINATES Y System WG 19°	X
		Constants :		0,00	0,00
A B	93,48	253 31 20	A	+18 594,74	+3 759 384,69
B C	7,14	343 29 30	B	+18 505,11	+3 759 358,18
C D	91,80	311 34 10	C	+18 503,08	+3 759 365,03
D E	93,45	72 02 40	D	+18 479,29	+3 759 386,12
E F	73,25	61 57 40	E	+18 568,19	+3 759 414,93
F A	75,07	210 30 10	F	+18 632,84	+3 759 449,37
	148	HELDW	△	+12 058,73	+3 767 943,05
	384	STEL 11	△	+ 6 520,29	+3 763 434,19

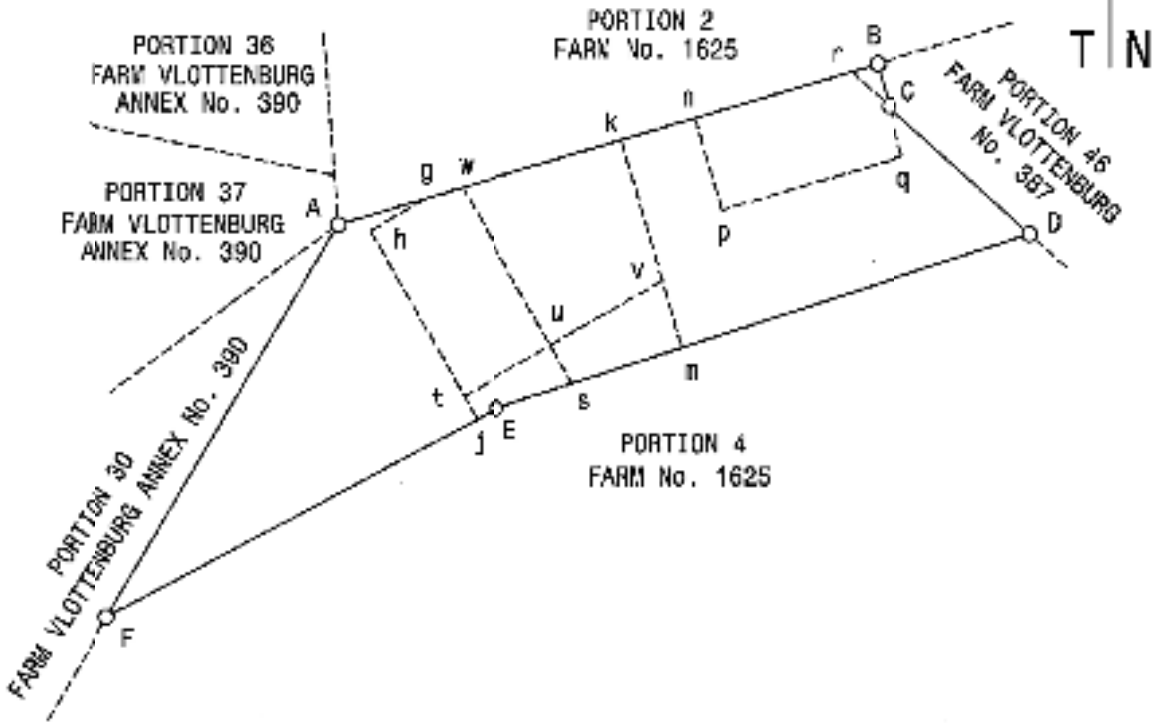
S.G. No. 2659/2023

Approved.

for
Surveyor - General
Date : 05-02-2024

Beacon Descriptions

A ..... Iron standard
All other beacons ..... 16mm Iron peg



SCALE 1 : 1250

The figure ABCDEF
represents 4696 square metres of land, being

PORTION 3 OF THE FARM No. 1625

Situate in the Stellenbosch Municipality
Administrative District of Stellenbosch
Province of Western Cape
Surveyed in June - July 2023
by me

PLS 1354 M R Stuart-Fox Pr Land Surveyor

This diagram is annexed to	The original diagram is	File No. STEL 387 V.3
No.	No. 2656/2023	S.R. No. 1615/2023
Dated T. 47525/2025		Comp. BHSY-4262 (M3168)
i.f.o.	Annexed to	BHSZ-31 (M3169)
Registrar of Deeds	FOR ENDORSEMENTS SEE BACK OF DIAGRAM	LPI C0670000

Farm 1625/3 Stellenbosch

APPROVED IN TERMS OF SECT. 4 OF ACT 70/1970
REF 56184
DATE 01/12/2021

Approved in terms of Section 60 of Municipal Land Use Planning Bylaw
Ref: LU/14173
Date: 31-05-2023

THIS PORTION IS SUBJECT TO ~~PROVISIONS REFERRED TO IN SEC. 11(4) OF~~ ACT 21/1940.

WinDeed Database D/O Property

STELLENBOSCH RD, VLOTTENBURG, 1625, 3, CAPE TOWN

Lexis® WinDeed

Any personal information obtained from this search will only be used as per the Terms and Conditions agreed to and in accordance with applicable data protection laws including the Protection of Personal Information Act, 2013 (POPI), and shall not be used for marketing purposes.

SEARCH CRITERIA			
Search Date	2025/11/29 12:07	Farm Number	1625
Reference	-	Registration Division	STELLENBOSCH RD
Report Print Date	2025/11/29 12:07	Portion Number	3
Farm Name	-	Search Source	WinDeed Database
Deeds Office	Cape Town		

PROPERTY INFORMATION			
Property Type	FARM	Diagram Deed Number	-
Farm Name	VLOTTENBURG	Local Authority	WINELANDS DC
Farm Number	1625	Province	WESTERN CAPE
Registration Division	STELLENBOSCH RD	Extent	4696.000SQM
Portion Number	3	LPI Code	C06700000000162500003
Previous Description	-		

OWNER INFORMATION (1)			
VREDENHEIM PTY LTD			Owner 1 of 1
Company Type	COMPANY	Document	T47525/2025
Registration Number	199500737107	Microfilm / Scanned Date	-
Name	VREDENHEIM PTY LTD	Purchase Price (R)	CRT
Multiple Owners	NO	Purchase Date	-
Multiple Properties	NO	Registration Date	2025/08/06
Share (%)	-		

ENDORSEMENTS (1)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	NOW SUBDIVISION	STELLENBOSCH RD ,1625 ,0	-	-

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HISTORIC DOCUMENTS (1)				
#	Document	Institution	Amount (R)	Microfilm / Scanned Date
1	T47522/2025	VREDENHEIM PTY LTD	-	-

DISCLAIMER
This report contains information provided to LNRM by content providers and LNRM cannot control the accuracy of the data nor the timely accessibility. LNRM will not be held liable for any claims based on reliance of the search information provided. This report is subject to the terms and conditions of LexisNexis Risk Management Agreement. LexisNexis Risk Management (Pty) Ltd is a registered credit bureau (NCRCB26).

ANNEXURE E: Land Owner consents for subject properties

Virdus Works Environmental
(Pty) Ltd (Reg. No. 2019/133896/07)
Environmental Management, Assessment and Administration
Director: Nico F Williams
PO Box 247, Wolseley, 6830, SOUTH AFRICA
Mobile: +27 76 564 8569
Email: nico.williams@virdus.com

VIRDUS WORKS

VERSOEK OM TOESTEMMING OM AANSOEK TE DOEN VIR 'N WATERGEBRUIK LISENSIE OM MUNISIPALE DIENSTE-INFRASTRUKTUUR OOR EIENDOM TE INSTALLEER INGEVOLGE ARTIKEL 40 VAN DIE NASIONALE WATERWET, 1998 (WET 36 VAN 1998) (Ptn 2 Farm 394)

Die aandeelhouers van Nidri Farms Trust gee hiermee toestemming aan Uniqon Developers (Edms) Bpk en Virdus Works Environmental (Edms) Bpk om aansoek te doen vir die watergebruik lisensie om eksterne dienste aan die voorgestelde ontwikkeling op Gedeelte 28 van die Plaas Welmoed Estate No. 468, Stellenbosch RD, te installeer, welke installasie moontlike effek op Gedeelte 2 van Plaas No 394 mag hê.

Eienaar naam en registrasie besonderhede: JACQUES BORMAN

BOSCHKLOOF WINES PTY LTD.

Telefoon: 06 [redacted] 89 – Privaatnr.

Sellulêr: 07 [redacted] 20

Epos: j [redacted] @k [redacted] .com.

Volle naam, van en posisie van ondertekenaar: Eerste Direkteur

Bassan.

Verteenwoordiger handtekening

Deur my/ons handtekening(e) bevestig ek/ons dat ek/ons ten volle gemagtig is om namens bogenoemde entiteit op te tree en dat die bogenoemde versoek om toestemming deur Virdus Works Environmental aanvaar is.

Virdus Works Environmental
(Pty) Ltd (Reg. No. 2019/133896/07)
Environmental Management, Assessment and Administration
Director: Nico F Williams
PO Box 247, Wolseley, 6830, SOUTH AFRICA
Mobile: +27 76 564 8569
Email: nico.williams@virdus.com

VIRDUS WORKS

REQUEST FOR PERMISSION TO APPLY FOR A WATER USE LICENSE TO CONVEY MUNICIPAL SERVICES INFRASTRUCTURE OVER PROPERTY IN TERMS OF SECTION 40 OF THE NATIONAL WATER ACT, 1998 (ACT 36 OF 1998) (Ptn 2 Farm 491)

The Shareholders of Sevilo Farm hereby grant permission to Uniqon Developers (Pty) Ltd and Virdus Works Environmental (Pty) Ltd to make application for a water use license to install external services to the proposed development on Portion 28 of the Farm Welmoed Estate No. 468, Stellenbosch RD, which might affect Ptn 2 of Farm 491.

Owner name and registration details: SEVILO FARM (PTY) LTD
1990/007072/07

Telephone:

Cellular: 082 [redacted]

Email: g[redacted]@s[redacted]c.[redacted]

Full name, surname and position of signatory: GUY ROLAND WEBSTER
SHAREHOLDER / DIRECTOR / GENERAL MANAGER

Representative signature

By my / our signature(s) I / we confirm that I / we have been fully authorised to act on behalf the above entity and that the above referred request for permission by Virdus Works Environmental has been accepted.

Virdus Works Environmental
(Pty) Ltd (Reg. No. 2019/133896/07)
Environmental Management, Assessment and Administration
Director: Nico F Williams
PO Box 247, Wolseley, 6830, SOUTH AFRICA
Mobile: +27 76 564 8569
Email: nico.williams@virdus.com

VIRDUS WORKS

VERSOEK OM TOESTEMMING OM AANSOEK TE DOEN VIR 'N WATERGEBRUIK LISENSIE OM MUNISIPALE DIENSTE-INFRASTRUKTUUR OOR EIENDOM TE INSTALLEER INGEVOLGE ARTIKEL 40 VAN DIE NASIONALE WATERWET, 1998 (WET 36 VAN 1998) (Ptn 1 Farm 489)

Die aandeelhouers van Solid Spark Investments (Pty) Ltd gee hiermee toestemming aan Uniqon Developers (Edms) Bpk en Virdus Works Environmental (Edms) Bpk om aansoek te doen vir die watergebruik lisensie om eksterne dienste aan die voorgestelde ontwikkeling op Gedeelte 28 van die Plaas Welmoed Estate No. 468, Stellenbosch RD, te installeer, welke installasie moontlike effek op Gedeelte 1 van Plaas No 489 mag hê.

Eienaar naam en registrasie besonderhede: Solid Sparks Investment Pty Ltd

VAT No 40[redacted]54

Telefoon: 0218[redacted]7

Sellulêr: 082[redacted]3

Epos: [redacted]

Volle naam, van en posisie van ondertekenaar: WILLEM DANIEL JOUBERT - DIREKTEUR

Verteenwoordiger handtekening

Deur my/ons handtekening(e) bevestig ek/ons dat ek/ons ten volle gemagtig is om namens bogenoemde entiteit op te tree en dat die bogenoemde versoek om toestemming deur Virdus Works Environmental aanvaar is.

OFFICE OF THE DISTRICT ROADS ENGINEER: PAARL
Christiaan Cronje (Pr. Eng.)
Production Engineer
Department of Infrastructure
ROAD DEPARTMENTAL OPERATIONS:
REGION 1
Christiaan.Cronje@westerncape.gov.za | Tel: 021 863 2020

Ref: CC-LoP-WULA001/25

Date: 23 May 2025

To whom it may concern:

This letter serves as confirmation that Virdus Works (Pty) Ltd are allowed to apply for a water use license within the confines of the proclaimed road reserve of Main Road 168 in the vicinity of log km 9.1.

This letter does not, in any way, grant approval of any service to extend over the mentioned road or any other proclaimed road within the network. This process should be formally applied for through our wayleave process which is managed by Chief Directorate: Planning.

Yours sincerely,

MC Cronje

On behalf of the DRE: Paarl

ANNEXURE F: Power of Attorney to submit application behalf of Applicant

LETTER OF AUTHORISATION / POWER OF ATTORNEY

(Requirement in terms of the National Water Act of 1998, Act 36 of 1998)

Herewith the undersigned representative of:	
Company / Trust/ Organisation:	Uniqon Developers (pty) Ltd
Reg. No.:	1997/021737/07
Full name:	Etienne Coetzer
ID. No.:	700228 08
Property:	RE Portion 28 of Farm No 468
Located at:	Cnr of Baden Powell Drive and Annandale Road, Stellenbosch, WC
Confirms that permission and special power of attorney has been granted to Virdus Works Environmental Pty Ltd. (Reg. No. 2019/133896/07) and Dupré Lombaard (Id no. 5707085057086) to act on the behalf of the landowner(s) to perform any act which he / she / it may be legally entitled to undertake to accomplish the following objectives and goals in terms of the above law and any other applicable legislation:	
To prepar e and submit applications for the authorisation of the following activities / development in terms of the relevant Acts and Bylaws: *It includes all matters regarding the legislative and technical compliance in obtaining the required Water Use Licence Application (WULA) from the DWS and to attend to any other ancillary matters flowing from such, concerning interactions with the local authorities and any other authorities.*	
Contact details (physical address / phone / fax):	
Physical address:	17 Catherine Road, Shere AH, Pretoria, 0084
Postal address:	Po Box 29593, Sunnyside, 0132
Telephone:	012 8 2/3
Facsimile:	012 8 4
Cellular:	083 9
Email:	e @u .c
VAT no.:	46
Signed:	
Date:	8/01/2024
By my signature(s) I confirm that I have been fully authorised to act on behalf the above landowner (annex the applicable resolution or other proof of authorisation to act on behalf of a juristic person hereto).	

ANNEXURE G: Detailed Freshwater Ecological Assessment, Enviroswift, 22 March 2024

Detailed Freshwater Ecological Assessment:

Proposed installation of external services entailing stream crossings for the proposed urban development on Portion 28 of the Farm Welmoed Estate No. 468, Stellenbosch, Western Cape

Prepared for:

Virdus Works (Pty) Ltd

Prepared by:

Nick Steytler
SACNASP Reg. no. 400029/02

Date: 22.03.2024

Nick Steytler
Sole Proprietor
T/A EnviroSwift Western Cape

Executive Summary

Background

Uniqon Developers (Pty) Ltd propose to develop an urban node comprising a mix of land uses on Portion 28 of the Farm Welmoed Estate No. 468, Stellenbosch. While the development of the urban node itself will not pose a risk to any freshwater ecosystems, the external services and in particular a new water supply pipeline and a new sewerage pipeline, would cross watercourses which would be impacted. Accordingly, a detailed freshwater ecological assessment that meets both the requirements of the NEMA EIA Regulations (2014, as amended) and the National Water Act, Act 36 of 1998 (NWA) is required. Virdus Works Environmental (Pty) Ltd, the Environmental Assessment Practitioner (EAP) appointed by the developer, has appointed EnviroSwift Western Cape (EnviroSwift) to undertake the required detailed freshwater ecological specialist assessment.

Desktop Assessment

The NGI topo-cadastral map identifies several drainage lines in the surrounding area. The proposed water pipeline would cross two separate non-perennial drainage lines with the northern-most drainage line indicated to discharge into the perennial Jonkershoek River approximately 1,7 km south east of the crossing point and the southern-most drainage line indicated to end at an impoundment approximately 150m to the east of the crossing point. The proposed sewerage pipeline would cross the Sand River immediately south of Baden Powell Drive (within the Baden Powell Road Reserve). The Sand River discharges into the perennial Jonkershoek River approximately 600m south west from the crossing point.

The National Wetlands Map Version 5 (CSIR, 2018) indicates no wetlands within the regulated zone of the two new pipelines. The NFEPA wetlands layer indicates numerous artificial wetlands (mostly irrigation dams) but no natural wetlands within the regulated zone of either pipeline.

All of the affected watercourses have been identified as restorable ESAs (i.e. ESA2) in the WCBSP (2017). In addition, small parts of the Jonkershoek River immediately downstream of its confluence with the Sand River have been identified as Aquatic CBAs.

Site Description

Site 1: 'Clean' watercourse water pipeline crossing

The so-called 'clean' watercourse originates approximately 250m to the north-west of the proposed crossing site in a small valley surrounded by vineyards and has been impounded at its source. The proposed crossing point is also a historic vehicular crossing point although at the time of the site visit recent flooding (presumably the 2024 floods that affected most of the Western Cape) had caused severe erosion of the farm road leading towards the crossing point and use of the crossing point appears to have ceased.

The vegetation associated with the watercourse immediately upstream of the proposed crossing point is dominated by *Typha capensis* (bullrush) which occurs in an area of flatter topography of approximately 300 square metres. Downstream of the proposed crossing point until a second impoundment some 180m to the south east, the watercourse flows through a slight to moderately sloping area where the watercourse is characterised by relatively dense macrophytes dominated by alien invasive species such as *Acacia longifolia* and *Populus canescens* (grey poplar). *Rubus* sp. (bramble) as well as *Pennisetum clandestinum* are also evident as examples of invasive herbs and grasses. Indigenous macrophytes are also present and included *Olea europaea* subs. *africana* (wild olive). Also present in this portion of the watercourse were unidentifiable indigenous sedges, *T. capensis* and *Zantedeschia aethiopica* (arum lily). The effects of livestock grazing within the watercourse were clearly evident and was the reason why the sedges could not be identified.

The soil auger sample obtained from the Typha-dominated area immediately upstream of the proposed crossing point exhibited a high degree of soil wetness, a low chroma and also a high level of organic material which is typical of the wetland permanent zone. Trickle flow was present at the crossing point and given the presence of *T. capensis* immediately upstream and also downstream of the crossing point

suggests that the watercourse is characterised by permanently saturated soils.

Site 2: 'Landfill' watercourse water pipeline crossing

The watercourse at Site 2 has been historically used as a landfill and, while there was recent evidence of efforts to rehabilitate the watercourse, solid waste deposits were still clearly evident. The watercourse has been impounded at its source approximately 150m upstream from the proposed crossing point and ends in a second impoundment approximately 150m downstream from the proposed crossing point. The portion upstream from the proposed crossing point is significantly less impacted than the lower portion which exhibits evidence of significant earthworks and vegetation removal, presumably as a result of the rehabilitation efforts.

The area surrounding the proposed crossing point was entirely devoid of vegetation while the area upstream of the proposed crossing point, and surrounding the upstream impoundment, was characterised by a stand of relatively dense macrophytes dominated by the invasive alien *Acacia melanoxylon* (Blackwood) and the indigenous *Olea europaea* subs. *Africana* (wild olive). Also present within the HGM unit immediately upstream of the proposed crossing point was a stand of *Phragmites australis* (common reed).

Auger samples within the vicinity of the proposed crossing point did not reveal any wetland characteristics and, while these were inconclusive due to the extent of soil disturbance in the area, alluvial characteristics were evident in the excavated materials. Evidence of flow was completely absent during the site investigation thereby confirming the ephemeral nature of flow in the watercourse.

Site 3: Sewerage pipeline crossing of the Sand River

The proposed sewerage pipeline crossing of the Sand River is located in the road reserve of the R310 ('Baden Powell Drive'). This area is currently subjected to extensive transformation due to the current upgrading of the R310 in the vicinity of Vlottenberg. The result is that the Sand River now discharges from a new culvert beneath the R310 into a newly created, trapezoidal, earthen channel prior to its discharge beneath a railway line after which it continues as a relatively intact system.

The portion of the Sand River in the vicinity of the proposed sewerage pipeline crossing point is almost entirely devoid of vegetation due to the recent extensive earthworks. A few individual plants had however survived including *Cyperus textilis* and *T. capensis*. A few specimens of the highly invasive *A. saligna* were also evident in the immediate surroundings.

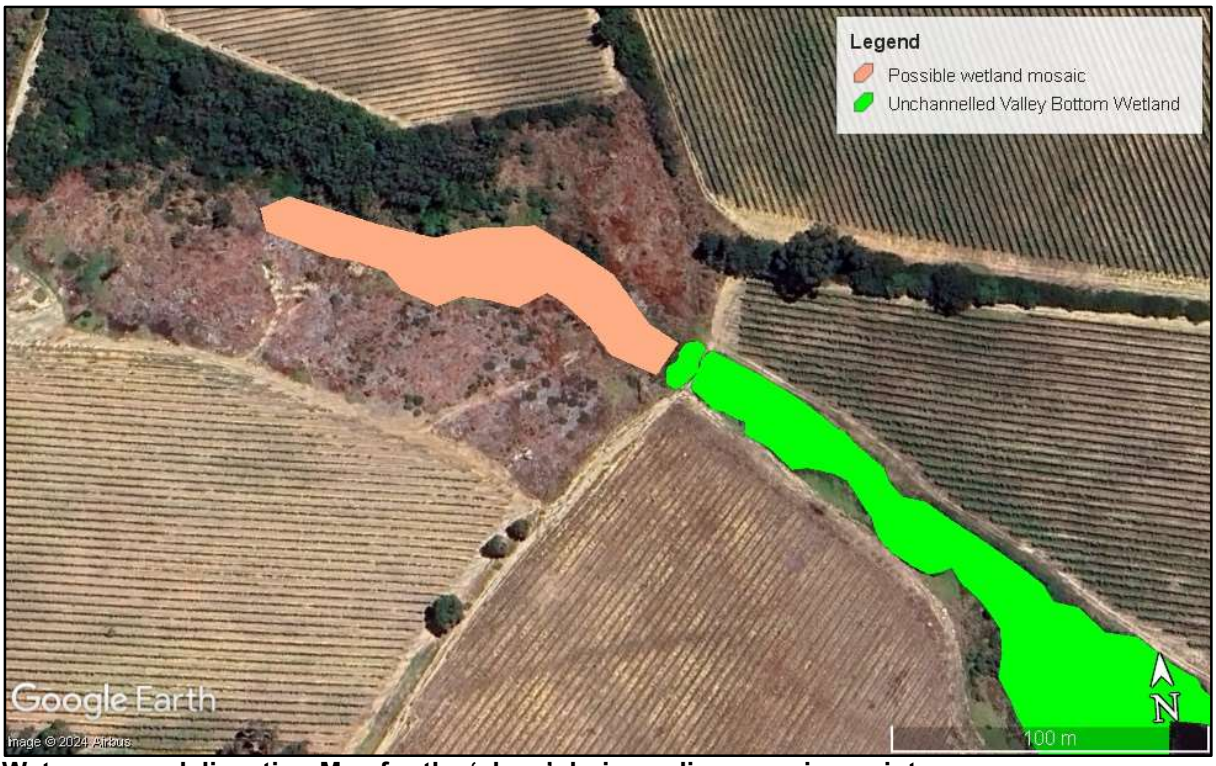
Auger samples revealed no conclusive evidence of wetland versus allivial systems which would allow for a conclusive determination of the classification of the watercourse as a wetland versus a drainage line or stream due to the extreme levels of recent soil disturbance.

Watercourse Classification and Delineation

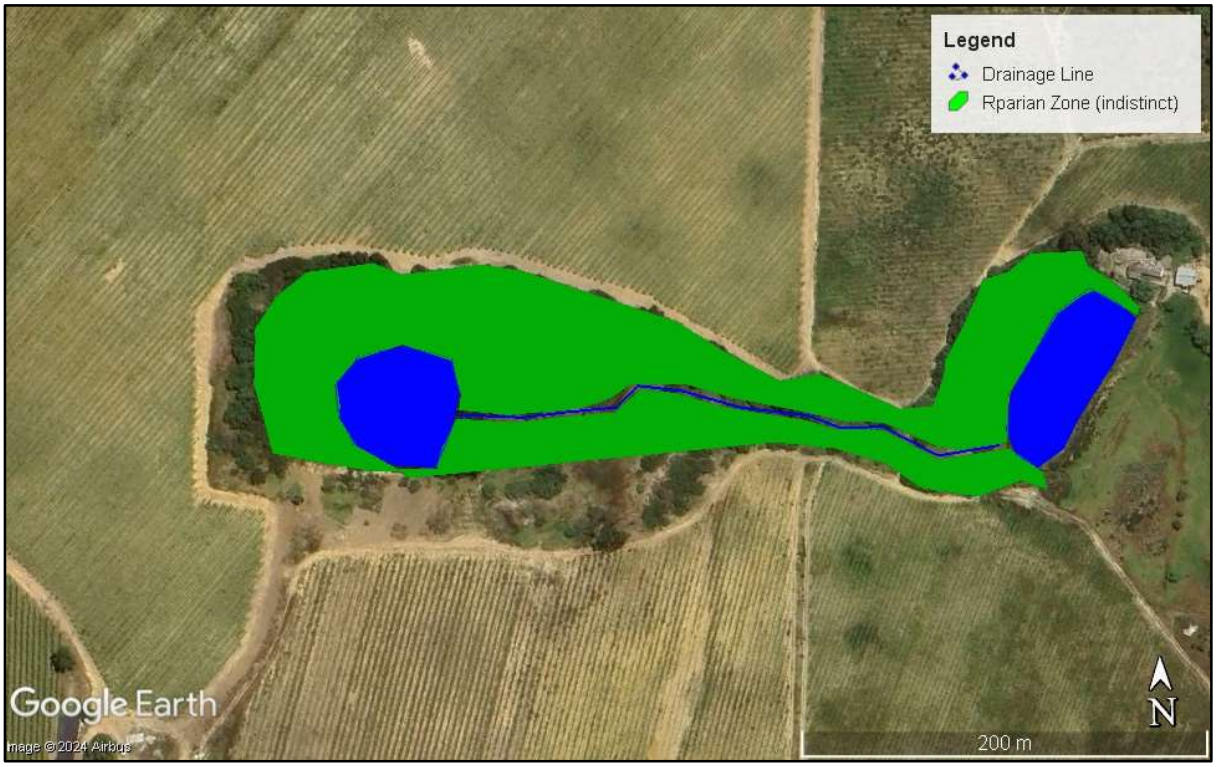
In terms of wetland and aquatic ecosystem classification user manual (Ollis *et. al.* 2013) the various watercourses affected by the proposed external services installations are classified as follows:

- 'Clean' watercourse: Unchannelled Valley Bottom Wetland;
- 'Landfill' watercourse: Non-perennial drainage line; and
- 'Sand' River: Non-perennial drainage line.

The watercourse delineations for each of the crossing points are presented in the following three figures.



Watercourse delineation Map for the 'clean' drainage line crossing point



Watercourse delineation Map for the 'landfill' drainage line crossing point

Watercourse delineation Map for the Sand River at the proposed sewerage pipeline crossing point. The yellow line indicates the approximate position of the proposed sewerage pipeline.

Freshwater Assessment Results

The application of the ecological assessment indices (WET-EcoServices, WET-Health/IHIA and EIS); resulted in the following for each of the affected watercourses (see Table below).

Watercourse	WET-Ecoservices	PES	EIS
Unchannelled Valley Bottom Wetland ('clean' watercourse)	Intermediate	Category "D" (Largely Modified)	Marginal/low
'Landfill' drainage line	N/A	Category "D" (Largely Modified)	Marginal/low
Sand River	N/A	Category "D" (Largely Modified)	Marginal/low

Impact Assessment

Given the nature of the proposed activity, which effectively entails vegetation clearing and trench excavations across the watercourses followed by backfilling and re-compaction, the development/construction phase impacts are limited to the alteration of flow regime, erosion and sedimentation and biota loss with erosion and sedimentation rated to be the only potential impact of MEDIUM (-ve) significance unmitigated with the remaining potential impacts to be LOW (-ve) unmitigated. This impact significance rating for erosion and sedimentation is largely attributed to the fact that excavations within and near watercourses inevitably results in sediment plumes and erosion due to the destabilisation of soils which can be transported downstream and off-site thereby resulting in a REGIONAL impact extent.

For the operational phase it is only the consequences of damaged and leaking pipelines that can cause potentially significant flow regime and water quality impacts, with the latter limited to the sewerage pipeline crossing of the Sand River only. The impact significance rating for these two operational phase impacts without mitigation was MEDIUM (-ve) as a result of the REGIONAL extent of both impacts (i.e. they are predicted to extend off-site) and LONG TERM duration (due to the fact that without regular leak inspections any leaks would go undetected for a long period of time.

Practicable mitigation measures have been recommended to minimise and manage all the identified potential impacts to ensure that all impacts are reduced to either LOW or VERY LOW (-ve) significance ratings. The construction phase impacts could be partly avoided through ensuring that the stream crossings take place in the dry summer period and also through the appointment of an ECO to oversee the actions of the Contractor and ensure that the recommended mitigation measures (presumably incorporated into a Construction EMP) are implemented. During the operational phase the use of Kevlar sleeves and the requirement for routine pipeline inspection for early leak detection would similarly minimise the impacts to VERY LOW (-ve) significances.

No Go alternative

The current trends of habitat degradation, primarily erosion and sedimentation due to the agricultural land use which has reduced catchment roughness and alien vegetation encroachment, would continue into the foreseeable future. As such the long-term prognosis for the three affected watercourses is that they would eventually deteriorate to reach a lower PES Category within the foreseeable future. Given that the unchannelled valley bottom wetland associated with the 'clean' watercourse is not recognised as being of conservation significance (i.e. no aquatic or terrestrial CBAs or ESAs are associated with the wetland) and that no wetlands of conservation importance are situated downstream of the wetland, this deterioration in the condition of the wetland has limited regional significance for this particular watercourse. A similar scenario would apply to the 'landfill' watercourse, however the Sand River discharges into the Jonkershoek River a short distance downstream from the proposed crossing point and parts of this river near to the proposed crossing point has been identified as comprising Aquatic CBAs. The Sand River therefore needs to be managed to ensure that it continues to provide the ecosystem services necessary to sustain the downstream Aquatic CBAs.

Overall, taking the above into consideration and in particular the lost-opportunity cost associated with the opportunity to rehabilitate the 'landfill' drainage line, the "No-Go" alternative is rated to be associated with a LOW (-ve) impact significance.

Conclusion & Recommendations

Given that a number of practicable mitigation measures can be enforced and that these would render most of the potential impacts to have a VERY LOW (-ve) impact significance with only one of the identified impacts (development/construction phase erosion and sedimentation) being rated to have a LOW (-ve) impact significance with mitigation, the proposed installation of the external services is supported from a freshwater ecological perspective. This is conditional on the recommended mitigation measures being implemented.

While not an essential mitigation measure and therefore not conditional upon the approval of the proposed development, the project provides an opportunity to rehabilitate the 'landfill' watercourse immediately upstream of the proposed crossing point where solid waste is still evident and earthworks have left area devoid of vegetation and exposed to erosion. What would be required would be removal of the remaining components of the waste body (this could be done by hand) and then the reshaping of the banks of the drainage line to approximate the natural terrain units followed be revegetation. A seed mix including *Cynodon dactylon* and other indigenous grasses as well as the planting of several *Olea capensis* seedlings would be sufficient for revegetation purposes.

Risk Assessment

Given that all of the activities are associated with a LOW risk rating the proposed development qualifies for a General Authorisation (GA) as far as the Section 21 (c) and (i) water uses are concerned.

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Disclaimer

EnviroSwift Western Cape has exercised all due care in the reviewing of all available information and the delineation of the watercourse boundaries. The accuracy of the results and conclusions from the assessment are entirely reliant on the accuracy and completeness of available desktop information, site conditions at the time of the assessment and professional judgment. EnviroSwift Western Cape does not accept responsibility for any errors or omissions in the assessment and therefore does not accept any consequential liability arising from commercial decisions made, which are based on the information contained in this report. Opinions presented in this report apply to conditions/site conditions applicable at time of review and those conditions which are reasonably foreseeable.

Glossary[1]

Alluvial soil:	A deposit of sand, mud, etc. formed by flowing water, or the sedimentary matter deposited thus within recent times, especially in the valleys of large drainage lines.
Biodiversity:	The number and variety of living organisms on earth, the millions of plants, animals and micro-organisms, the genes they contain, the evolutionary history and potential they encompass and the ecosystems, ecological processes and landscape of which they are integral parts.
Buffer:	A strip of land surrounding a wetland or riparian area in which activities are controlled or restricted, in order to reduce the impact of adjacent land uses on the wetland or riparian area.
Catchment:	The area contributing to runoff at a particular point in a drainage line system.
Chroma:	The relative purity of the spectral colour which decreases with increasing greyness.
Critical Biodiversity Areas:	Areas of the landscape that need to be maintained in a natural or near-natural state in order to ensure the continued existence and functioning of species and ecosystems and the delivery of ecosystem services.
Delineation (of a wetland):	To determine the boundary of a wetland based on soil, vegetation and/or hydrological indicators.
Ecoregion:	A recurring pattern of ecosystems associated with characteristic combinations of soil and landform that characterise that region.
Non-perennial stream:	A stream that has transitory or short-lived flow.
Groundwater:	Subsurface water in the saturated zone below the water table.
Habitat:	The natural home of species of plants or animals.
Hue (of colour):	The dominant spectral colour.
Hydromorphic soil:	A soil that, in its undrained condition, is saturated or flooded long enough to develop anaerobic conditions favouring the growth and regeneration of hydrophytic vegetation (vegetation adapted to living in anaerobic soils).
Hydrology:	The study of the occurrence, distribution and movement of water over, on and under the land surface.
Hydrophytes:	Also called obligate wetland plants - plants that are physiologically bound to water where at least part of the generative cycle takes place in the water or on the surface.
Halophytes:	Salt tolerant plants.
Helophytes:	Also called facultative wetland plants - essentially terrestrial plants of which the photosynthetically active parts tolerate long periods of submergence or floating on water.
Indicator species:	A species whose presence in an ecosystem is indicative of particular conditions (such as saline soils or acidic waters).
Intermittent flow:	Flows only for short periods.
Macrophyte:	A large plant - in wetland studies usually a large plant growing in shallow water or waterlogged soils.

[1] As provided by DWA (2005) and WRC Report No. TT 434/09.

Perennial: Permanent - persisting from year to year.

Riparian area delineation: The determination and marking of the boundary of the riparian area.

Riparian habitat: Includes the physical structure and associated vegetation of the areas associated with a watercourse which are commonly characterized by alluvial soils (deposited by the current drainage line system) and which are inundated or flooded to an extent and with a frequency sufficient to support vegetation of species with a composition and physical structure distinct from those of adjacent areas.

Shrub: A shrub is a small to medium-sized woody plant.

Temporary zone: The zone that is alternately inundated and exposed.

Terrain unit morphological classes: Areas of the land surface with homogenous form and slope.

Watercourse (NWA):

(a) A drainage line or spring;
(b) A natural channel in which water flows regularly or intermediately;
(c) A wetland, lake or dam into which or from which water flows; and
(d) Any collection of water which the Minister may, by notice in the Gazette, declare to be a watercourse.

Water table: The upper surface of groundwater or that level below which the soil is saturated with water. The water table feeds base flow to the drainage line channel network when the drainage line channel is in contact with the water table.

Wetland: An area of marsh, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed ten metres.

Acronyms

BMP	Best Management Practice
CCT	City of Cape Town
CBA	Critical Biodiversity Area
CSIR	Council for Scientific and Industrial Research
DWA	Department of Water Affairs
DWAF	Department of Water Affairs and Forestry
DWS	Department of Water and Sanitation
EIA	Environmental Impact Assessment
EIS	Ecological Importance and Sensitivity
FEPA	Freshwater Ecological Support Area
GPS	Global Positioning System
HGM	Hydrogeomorphic
IHI	Index of Habitat Integrity
IHIA	Intermediate Habitat Integrity Assessment
MAP	Mean Annual Participation
NEMA	National Environmental Management Act
NFEPA	National Freshwater Ecosystem Priority Areas
NWA	National Water Act
OESA	Other Ecological Support Area
PES	Present Ecological State
REC	Recommended Ecological Category
SANBI	South African National Biodiversity Institute

Sub-WMA Sub - Water Management Area
SUDS Sustainable Urban Drainage Systems
WCBF Western Cape Biodiversity Framework
WMA Water Management Area
WUL Water Use Licence
WWTW Wastewater Treatment Works

Specialist Details and Experience

Nick Steytler (Pr.Sci.Nat. 400029)

Nick Steytler is a registered Professional Natural Scientist (Pr.Sci.Nat.) with the South African Council for Natural Scientific Professions (SACNASP) and is also a certified Environmental Assessment Practitioner (EAP) with over 20 years' experience in the field of environmental management. He holds a Masters of Science (MSc.) degree in the field of Entomology (University of KwaZulu-Natal, Pietermaritzburg campus). His employment record includes several years with the Institute of Natural Resources in KwaZulu-Natal where he worked within their Natural Resource Management Programme and then with SRK Consulting in Cape Town where he worked as an Environmental Scientist in the field of environmental management (i.e. undertaking Environmental Impact Assessment [EIA] and the like). After leaving SRK in 2007, Nick founded KHULA Environmental Consultants which has been consulting for over 15 years in environmental management sector in the Western Cape. In developing his expertise as a freshwater specialist, he initially worked in the capacity of an associate to EnviroSwift Western Cape (WC) and then took over the company in 2020. He now undertakes all wetland specialist work in the Western, Southern, Eastern and Northern Cape and is supported by Louise Santanna, Director of EnviroSwift KwaZulu-Natal.

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1 Introduction

1.1 Project Background

Uniqon Developers (Pty) Ltd proposes the development of an urban node on Portion 28 of the Farm Welmoed Estate No. 468, Stellenbosch (see Figure 1 for location plan). Virdus Works Environmental (Pty) Ltd, the Environmental Assessment Practitioner (EAP) appointed by the developer, has appointed EnviroSwift Western Cape (EnviroSwift) to undertake a detailed freshwater ecological specialist assessment given that the external services, in particular a new water supply pipeline and a new sewerage pipeline, cross watercourses which would be potentially impacted as a result of the proposed development. Accordingly, a detailed freshwater ecological assessment that meets both the requirements of the NEMA EIA Regulations (2014, as amended) and the National Water Act, Act 36 of 1998 (NWA) are required.

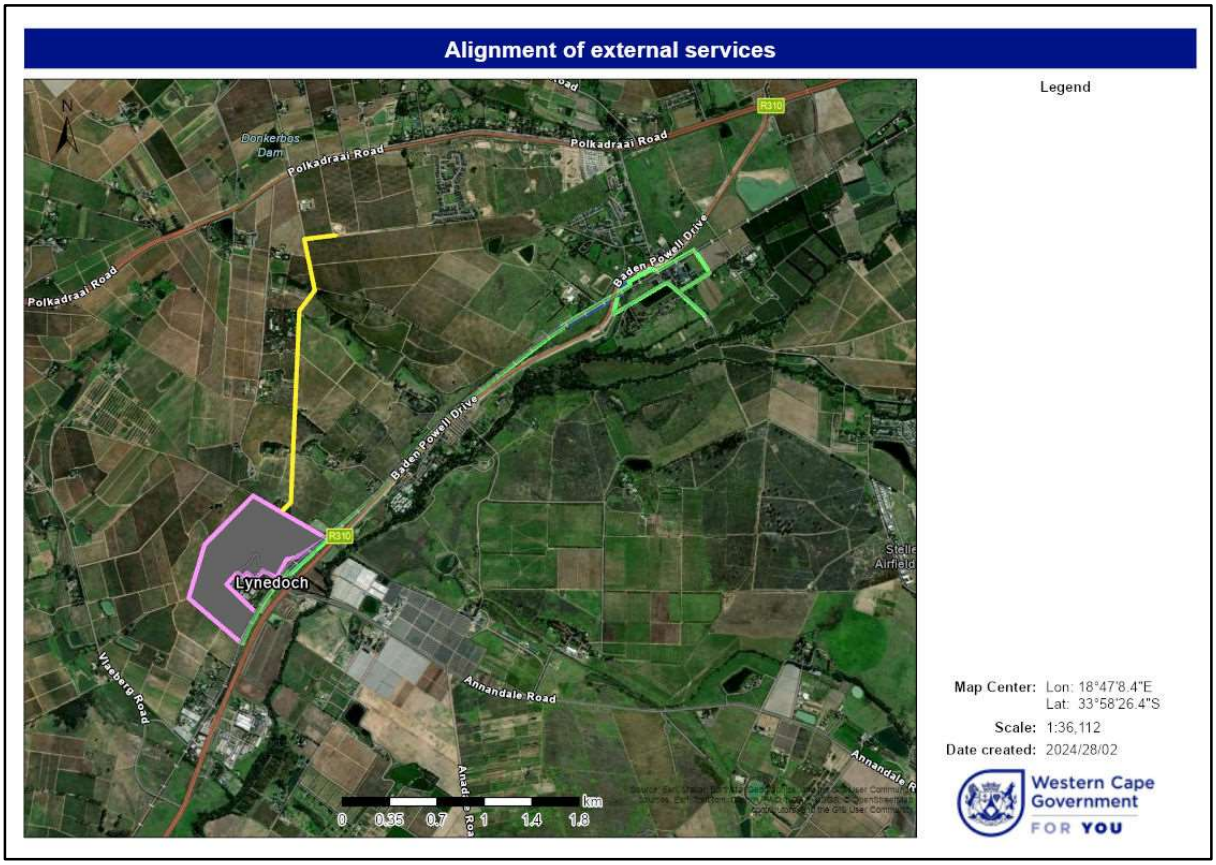

Figure 1: Location of the proposed development shown as a pink polygon and the water supply pipeline as a yellow line and the sewerage pipeline as a green line.

1.2 Scope of Work

The scope of work for a detailed freshwater ecological study is as follows:

- Assessment of relevant background information including the National Freshwater Ecological Database (NFEPA, 2011), the National Wetlands Map Version 5 (CSIR, 2018), the Western Cape Biodiversity Spatial Plan (WCBSP, 2017), the National Geospatial Information (NGI) Service topographical maps and vector data, and pertinent academic resources;

- A site assessment including identification of on-site wetlands and drainage lines and the delineation of the wetland temporary boundary and any riparian zones associated with drainage lines in accordance with best practice methods (refer to methods section);

- Assessment of the Present Ecological State (PES) and Ecological Importance and Sensitivity (EIS) of the directly affected wetlands and the Intermediate Habitat Integrity Assessment (IHIA) method and EIS for the directly affected drainage lines according to best practice methods (refer to methods section);

- Identification of the Section 21 (c) and (i) activities;

- Assessment of the significance of the identified potentially significant impacts and identification of practicable mitigation measures;

- Completion of the Department of Water & Sanitation (DWS) Risk Assessment Matrix to determine the level of risk posed to the directly affected watercourses and the relevant level of Water Use application;

1.3 Limitations and Assumptions

The following limitations apply to this study:

- A site visit was undertaken on 27 February 2024 in order to identify and delineate watercourses within and immediately adjacent to the proposed pipeline crossings (3 in total). This is not the ideal time of the year to determine hydrology as it is the driest time of the year. This is not considered a material limitation as flow was observed in two of the watercourses. Based on the precautionary principle the third watercourse which showed no evidence of flow was deemed to be ephemeral.
- The EAP, Virdus Works Environmental, provided the Terms of Reference (ToR) for this study and specifically indicated that only the external services and, in particular, two watercourse crossing points for the proposed water supply pipeline and a third crossing point for a proposed sewerage pipeline were the only aspects of the proposed development which required freshwater specialist assessment. As such this study has only focussed on the three crossing points and the watercourses directly affected by the proposed pipeline crossings.
- Regarding the delineation of wetlands and riparian areas near to these crossings, the determination of the wetland and riparian edges have been based on accepted best-practise methods as per the Updated Manual for Identification and Delineation of Wetland and Riparian Areas (Department of Water Affairs and Forestry - DWAF, 2008) and the Application of the DWAF (2008) Method to Wetland Soils of Western Cape (Job *et. al.* 2009). The upstream and downstream portions beyond the sphere of direct influence have been delineated based on desktop methods, *inter alia* Google Earth aerial imagery which shows the riparian vegetation edge. This is considered appropriate given the nature of the proposed activity which entails pipeline crossings which have a minimal sphere of direct influence and do not entail wetland loss as the topsoil is typically reinstated after the pipelines have been laid.
- In determining the current extent of the wetland the methods used were limited to the upper 50cm of soil in accordance with the Updated Manual for Identification and Delineation of Wetland and Riparian Areas (Department of Water Affairs and Forestry - DWAF, 2008) and the Application of the DWAF (2008) Method to Wetland Soils of Western Cape (Job *et. al.* 2009); and
- The current extent of the site's wetlands and riparian areas has been delineated using a Garmin Etrex 20 with an expected accuracy of 3 to 5 metres. It is however the opinion of the specialist that this limitation is of no material significance and that the freshwater-related impacts have been adequately identified;
- At the time of the site visit both the 'landfill' watercourse and the Sand River at their respective proposed crossing points were subject to extensive disturbance which had resulted in the almost complete removal of instream and riparian vegetation as well as earthworks which had completely altered the bed and banks of these two drainage lines. While these two systems are expected to recover the current assessment is based on their current status as it is not possible to predict the rate of recovery and also when the external services will be installed.

1.4 Overview of Applicable Legislation

1.4.1 National Water Act (Act 36 of 1998)

The purpose of the NWA is to ensure that the nation's water resources are protected, used, developed, conserved, managed and controlled in ways which take into account amongst other factors -
(g) protecting aquatic and associated ecosystems and their biological diversity; and
(h) reducing and preventing pollution and degradation of water resources.

In order to understand and interpret the Act correctly, the following definitions are applicable to this project:
``**pollution"** means the direct or indirect alteration of the physical, chemical or biological properties of a water resource;
``**protection",** in relation to a water resource, means -
(a) maintenance of the quality of the water resource to the extent that the water resource may be used in an ecologically sustainable way;
(b) prevention of the degradation of the water resource; and
(c) the rehabilitation of the water resource;
``**resource quality"** means the quality of all the aspects of a water resource including -
(a) the quantity, pattern, timing, water level and assurance of instream flow;
(b) the water quality, including the physical, chemical and biological characteristics of the water;
(c) the character and condition of the instream and riparian habitat; and
(d) the characteristics, condition and distribution of the aquatic biota;
“watercourse" means -
(a) a drainage line 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
(d) any collection of water which the Minister may, by notice in the Gazette, declare to be a watercourse, and a reference to a watercourse includes, where relevant, its bed and banks; and
``**water resource"** includes a watercourse, surface water, estuary, or aquifer.

The NWA deals with pollution prevention, and in particular the situation where pollution of a water resource occurs or might occur as a result of activities on land. The person who owns, controls, occupies or uses the land in question is responsible for taking measures to prevent pollution of water resources. The measures may include measures to -
(a) cease, modify or control any act or process causing the pollution;
(b) comply with any prescribed waste standard or management practice;
(c) contain or prevent the movement of pollutants;
(d) eliminate any source of the pollution;
(e) remedy the effects of the pollution; and
(f) remedy the effects of any disturbance to the bed and banks of a watercourse.

Water use is defined broadly, and includes taking and storing water, activities which reduce stream flow, waste discharges and disposals, controlled activities (activities which impact detrimentally on a water resource), altering a watercourse, removing water found underground for certain purposes, and recreation. In general, a water use must be licensed unless it is listed in Schedule I, is an existing lawful use, is permissible under a general authorisation, or if a responsible authority waives the need for a licence.

Notice No. 4167 of Government Gazette No. 49833 (December 2023) promulgated in terms of the NWA makes allowance for a regulated area around all watercourses within which the risk of an activity in terms of water uses (c) and (i) under section 21 of the Act must be assessed. The stipulated regulated areas include everything within 500m of the boundary of wetland, and everything within 100m or the 1:100 year flood-line (whichever is the greater distance) of a river, stream or drainage line.

The Department of Water and Sanitation (DWS) applies a “no net loss” policy to wetlands. Therefore, should the proposed development result in the loss of any wetland habitat or function, the loss must be compensated by means of an offset scheme in order to secure the required water use licence. Significant loss of riparian habitat may also require compensation by means of an offset in order for the application to be successful. An offset scheme may entail rehabilitation and management of another

portion of wetland or riparian habitat within the applicable property; or if this is not feasible or adequate, it may entail purchase, rehabilitation and management (in perpetuity) of another wetland or riparian property. Rehabilitation, purchase of an additional property (if necessary) and management of the offset may be costly processes. Note that the proposed pipeline crossings would, however, **not** cause wetland loss and so offsets do not apply in this case.

Applicable activities for the proposed development relate to Section 21 (c) and (i), for which registration under a GA is allowable for low risk activities, and a Risk Assessment Matrix has been completed in this regard, with the resultant risks being determined as 'low' for the proposed pipeline crossings. Therefore, the proposed pipeline crossings should qualify for a GA registration.

1.4.2 National Environmental Management Act (107 of 1998)

The NEMA states the following:
"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."

The Act also makes special mention of the importance of the protection of wetlands:

"Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure."

Environmental Impact Assessment (EIA) Regulations have been promulgated under NEMA since 2006[2] which list activities that may be detrimental to the environment and that require prior Environmental Authorisation. The Regulations specify the level of EIA (either a Basic Assessment or a full Scoping and EIA process) that needs to be undertaken in order to obtain the required Environmental Authorisation.

Environmental Impact Assessment (EIA) Regulations have been promulgated under NEMA since 2006[3] which list activities that may be detrimental to the environment and that require prior Environmental Authorisation. The appointed EAP, Virdus Works Environmental, has confirmed that the proposed development does require prior environmental authorisation in terms of the NEMA EIA Regulations (2014, as amended) as listed activities are applicable.

In accordance with the *Procedures for the assessment and minimum criteria for reporting on identified environmental themes in terms of Sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for environmental authorisation*[4] when the site sensitivities are VERY HIGH, HIGH or MODERATE for any particular specialist theme then the applicable protocol for specialist assessment must be applied. In terms of NEMA, wetlands and drainage lines fall under the identified theme of Aquatic Biodiversity. In this case the Screening Tool identified the site as having a VERY HIGH sensitivity for the aquatic biodiversity theme and accordingly the current study must meet the minimum reporting criteria as per the gazetted protocol for Aquatic Biodiversity Assessment. In undertaking this detailed Freshwater Ecological Assessment, EnviroSwift has addressed the minimum reporting criteria that are applicable as indicated in Table 1.

[2] The Regulations were amended in 2010 and in 2014, and again in 2017.

[3] Regulations were promulgated in 2006, 2010 and 2014 and amended in 2017.

[4] Gazetted on 20 March 2020 (GN No. R320) and which came into effect in May 2020

Table 1: Compliance with the reporting requirements as per the Protocol for Aquatic Biodiversity Assessments

No.	Reporting Requirements as per the Protocol for Aquatic Biodiversity Specialist Assessments	Compliance of current report
1	The assessment must provide a baseline description of the site which includes, as a minimum, the following aspects:	
1.1	a description of the aquatic biodiversity and ecosystems on the site, including;	See Section 3.
	(a) aquatic ecosystem types; and	See Section 3.
	(b) presence of aquatic species, and composition of aquatic species communities, their habitat, distribution and movement patterns	See Section 3.
1.2	the threat status of the ecosystem and species as identified by the Screening Tool	Ecosystem threat status is presented in Section 3.1.1. No aquatic species were identified as requiring assessment by the Screening Tool.
1.3	an indication of the national and provincial priority status of the aquatic ecosystem, including a description of the criteria for the given status (i.e. if the site includes a wetland or a river freshwater ecosystem priority area or sub catchment, a strategic water source area, a priority estuary, whether or not they are free -flowing rivers, wetland clusters, a critical biodiversity or ecologically sensitivity area)	See Section 3.1. where the presence of CBAs and ESAs are described as identified in the WCBSP (2017).
1.4	a description of the Ecological Importance and Sensitivity (EIS) of the aquatic ecosystem including:	See Section 3.4 where the EIS method based on the assessment tool developed by Rountree *et. al.* (2013) is applied to the large hillslope seep and Section 3.5 where it is applied to the 3 minor seeps.
	(a) the description (spatially, if possible) of the ecosystem processes that operate in relation to the aquatic ecosystems on and immediately adjacent to the site (e.g. movement of surface and subsurface water, recharge, discharge, sediment transport, etc.); and	See Section 3.4 where the WET-Health method (Macfarlane, 2007) is presented and where the pre-development PES is determined for the Unchannelled Valley Bottom Wetland and Section 3.5 & 3.6 for the two affected drainage lines.
	(b) the historic ecological condition (reference) as well as Present Ecological State (PES) of rivers (in- stream, riparian and floodplain habitat), wetlands and/or estuaries in terms of possible changes to the channel and flow regime (surface and groundwater).	The pre-development PES is assessed using the WET-Health method (Macfarlane, 2007) and is presented in Section 3.4.2 for the Unchannelled Valley Bottom Wetland and 3.5.1 & 3.6.1 for the two affected drainage lines.
2	The assessment must identify alternative development footprints within the preferred site which would be of a "low" sensitivity as identified by the screening tool and verified through the site sensitivity verification and which were not considered appropriate.	No alternative scheme is being assessed.
3	Related to impacts, a detailed assessment of the potential impacts of the proposed development on the following aspects must be undertaken to answer the following questions:	See Section 4 for Impact Assessment.
3.1	Is the proposed development consistent with maintaining the priority aquatic ecosystem in its current state and according to the stated goal?	See Section 5 for key findings and recommendations.
3.2	Is the proposed development consistent with maintaining the resource quality objectives for the aquatic ecosystems present?	No resource quality objectives have been established for the aquatic ecosystems present.
3.3	How will the proposed development impact on fixed and dynamic ecological processes that operate within or across the site? This must include:	
	(a) impacts on hydrological functioning at a landscape level and across the site which can arise from changes to flood regimes (e.g. suppression of floods, loss of flood attenuation capacity, unseasonal flooding or destruction of floodplain processes);	Impacts on flood regime are addressed in Section 4.2.

No.	**Reporting Requirements as per the Protocol for Aquatic Biodiversity Specialist Assessments**	**Compliance of current report**
	(b) will the proposed development change the sediment regime of the aquatic ecosystem and its sub -catchment (e.g. sand movement, meandering river mouth or estuary, flooding or sedimentation patterns);	Erosion and sedimentation are addressed in Section 4.2.
	(c) what will the extent of the modification in relation to the overall aquatic ecosystem be (e.g. at the source, upstream or downstream portion, in the temporary / seasonal / permanent zone of a wetland, in the riparian zone or within the channel of a watercourse, etc.); and	See Section 4 where the potential impacts of the proposed development are assessed.
	(d) to what extent will the risks associated with water uses and related activities change	See Section 6 for Risk Assessment.
3.4	How will the proposed development impact on the functioning of the aquatic feature? This must include:	
	(a) base flows (e.g. too little or too much water in terms of characteristics and requirements of the system);	See Section 4.2.
	(b) quantity of water including change in the hydrological regime or hydroperiod of the aquatic ecosystem (e.g. seasonal to temporary or permanent; impact of over -abstraction or instream or off stream impoundment of a wetland or river);	See Section 4.2.
	(c) change in the hydrogeomorphic typing of the aquatic ecosystem (e.g. change from an unchannelled valley- bottom wetland to a channelled valley -bottom wetland); (d) quality of water (e.g. due to increased sediment load, contamination by chemical and/or organic effluent, and/or eutrophication);	See Section 4.2.
	(e) fragmentation (e.g. road or pipeline crossing a wetland) and loss of ecological connectivity (lateral and longitudinal); and	While the proposed water supply pipeline would cross an Unchannelled Valley Bottom Wetland the construction method results in no wetland fragmentation as the soils are backfilled and the compacted.
	(f) the loss or degradation of all or part of any unique or important features associated with or within the aquatic ecosystem (e.g. waterfalls, springs, oxbow lakes, meandering or braided channels, peat soils, etc.);	N/A as no such unique or important features present on the site.
3.5	How will the proposed development impact on key ecosystems regulating and supporting services especially:	See Section 4.
	(a) flood attenuation;	
	(b) streamflow regulation;	
	(c) sediment trapping;	
	(d) phosphate assimilation;	
	(e) nitrate assimilation;	
	(f) toxicant assimilation;	
	(g) erosion control; and	
	(h) carbon storage?	
3.6	How will the proposed development impact community composition (numbers and density of species) and integrity (condition, viability, predator - prey ratios, dispersal rates, etc.) of the faunal and vegetation communities inhabiting the site?	This has not been identified as a potential impact given the fact that disturbance caused by the construction method is only temporary and of relatively low intensity.
No.	**Minimum information requirements for an Aquatic Biodiversity Specialist Assessment Report**	
1	contact details of the specialist, their SACNASP registration number, their field of expertise and a curriculum vitae	Contact details, SACNASP registration number and field of expertise provided in cover pages and preface of the report. CV provided as Appendix 2.
2	a signed statement of independence by the specialist	Statement of Independence provided as Appendix 3.
3	a statement on the duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment	See Section 1.3.

No.	**Reporting Requirements as per the Protocol for Aquatic Biodiversity Specialist Assessments**	**Compliance of current report**
4	the methodology used to undertake the site inspection and the specialist assessment, including equipment and modelling used, where relevant	See Section 1.3 and Section 2.
5	a description of the assumptions made, any uncertainties or gaps in knowledge or data	See Section 1.3.
6	the location of areas not suitable for development, which are to be avoided during construction and operation, where relevant	No such areas were identified.
7	additional environmental impacts expected from the proposed development	See Section 4.2
8	any direct, indirect and cumulative impacts of the proposed development on site	See Sections 4.2, 4.4 and 4.5, respectively.
9	the degree to which impacts and risks can be mitigated, reversed and can cause loss of irreplaceable resources	See Section 4.2
10	a suitable construction and operational buffer for the aquatic ecosystem, using the accepted methodologies	Buffers are not applicable given the nature of the proposed development.
11	proposed impact management actions and impact management outcomes for inclusion in the Environmental Management Programme (EMPr)	See Section 4.2 and Section 5
12	a motivation must be provided if there were development footprints identified as per requirement No. 2 above that were identified as having a "low" aquatic biodiversity sensitivity and that were not considered appropriate	N/A
13	a substantiated statement, based on the findings of the specialist assessment, regarding the acceptability or not of the proposed development and if the proposed development should receive approval or not	See Section 5.
14	any conditions to which this statement is subjected	See Section 5.

Method of Assessment

1.5 Overview

The methods used in this freshwater specialist study entailed the following:

1. A desktop assessment to determine the conservation importance of the affected watercourses;
2. Site assessment to identify the site's watercourses and delineate their current extent;
3. An assessment of the current ecological status and value of the site's wetlands using recognised classification systems and indices based on the information collected during the desktop assessment and site assessment;
4. An impact assessment where the potential impacts (and benefits) caused by the proposed development are identified based on the desktop assessment and the site assessment, assessed in terms of their significance and the identification of mitigation and/or management measures to minimise the potentially significant negative impacts and enhance potential benefits; and
5. A Risk Assessment as required in terms of Notice No. 4167 of Government Gazette 49833 of December 2023.

These methods are discussed in more detail in the following sections.

1.6 Desktop Assessment

The scope of work includes a desktop assessment using available national and provincial databases including the National Wetlands Map 5 (CSIR, 2018), the NFEPA (2011), the Western Cape Biodiversity Spatial Plan (WCBSP, 2017) and maps and vector data form the National Geospatial Information (NGI) directorate.

The WCBSP categorises natural features into Protected Areas (PAs), Critical Biodiversity Areas (CBAs), Ecological Support Areas (ESAs), and Other Natural Areas (ONAs), which are defined in the plan as follows (see Table 2):

Table 2: WCBSP category definitions and management objectives.

MAP CATEGORY	DEFINITION	DESIRED MANAGEMENT OBJECTIVE	SUB-CATEGORY
Protected Area	Areas that are proclaimed as protected areas under national or provincial legislation.	Must be kept in a natural state, with a management plan focused on maintaining or improving the state of biodiversity. A benchmark for biodiversity.	n/a
Critical Biodiversity Area 1	Areas in a natural condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure.	Maintain in a natural or near-natural state, with no further loss of habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate.	CBA: River CBA: Estuary CBA: Wetland CBA: Forest CBA: Terrestrial
Critical Biodiversity Area 2	Areas in a degraded or secondary condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure.	Maintain in a functional, natural or near-natural state, with no further loss of natural habitat. These areas should be rehabilitated.	CBA: Degraded
Ecological Support Area 1	Areas that are not essential for meeting biodiversity targets, but that play an important role in supporting the functioning of PAs or CBAs, and are often vital for delivering ecosystem services.	Maintain in a functional, near-natural state. Some habitat loss is acceptable, provided the underlying biodiversity objectives and ecological functioning are not compromised.	ESA: Foredune ESA: Forest ESA: Climate Adaptation Corridor ESA: Coastal Resource Protection ESA: Endangered Ecosystem ESA: River ESA: Estuary ESA: Wetland ESA: Watercourse Protection ESA: Water Source Protection ESA: Water Recharge Protection
Ecological Support Area 2	Areas that are not essential for meeting biodiversity targets, but that play an important role in supporting the functioning of PAs or CBAs, and are often vital for delivering ecosystem services.	Restore and/or manage to minimise impact on ecological infrastructure functioning; especially soil and water-related services.	ESA: Restore from NN
ONA: Natural to Near-Natural	Areas that have not been identified as a priority in the current systematic biodiversity plan, but retain most of their natural character and perform a range of biodiversity and ecological infrastructure functions. Although they have not been prioritised for biodiversity, they are still an important part of the natural ecosystem.	Minimise habitat and species loss and ensure ecosystem functionality through strategic landscape planning. Offers flexibility in permissible land uses, but some authorisation may still be required for high-impact land uses.	ONA: Natural to Near-Natural ONA: Degraded
No Natural Remaining	Areas that have been modified by human activity to the extent that they are no longer natural, and do not contribute to biodiversity targets. These areas may still provide limited biodiversity and ecological infrastructure functions, even if they are never prioritised for conservation action.	Manage in a biodiversity-sensitive manner, aiming to maximise ecological functionality. Offers the most flexibility regarding potential land uses, but some authorisation may still be required for high-impact land uses.	No Natural Remaining

1.7 Watercourse Identification and Delineation

For the purpose of the identification of water resources, the definition as provided by the NWA (Act 36 of 1998) was used to guide the site assessment. The NWA defines a water resource as a watercourse, surface water, estuary or aquifer, of which the latter two are not applicable to this assessment due to the following:

- An estuary is associated with the sea and are therefore excluded from freshwater assessments; and
- Given that wetland and riparian assessments only include the assessment of hydrology in the first 50 cm from the soil surface, aquifers, being significantly deeper, are excluded.

In addition, reference to a watercourse as provided above includes, where relevant, its bed and banks.

In order to establish if the watercourses at risk of being impacted can be classified as 'wetland habitat' or 'drainage line or riparian habitat', the definitions as drafted by the NWA (Act No. 36, 1998)[5] were taken into consideration:

- A 'wetland' is 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; and
- 'Riparian' habitat includes the physical structure and associated vegetation of the areas associated with a watercourse which are commonly characterized by alluvial soils, and which are inundated or flooded to an extent and with a frequency sufficient to support vegetation of species with a composition and physical structure distinct from those of adjacent areas.

Freshwater habitat was identified with the use of the definitions provided above and the delineation took place according to the method supplied by DWAF (2005, updated 2008). Several indicators are prescribed in the wetland delineation guideline to facilitate the delineation of the temporary wetland zone.

Indicators used to determine the boundary of the wetland temporary zone include:

1) The position in the landscape;
2) The type of soil form;
3) The presence of wetland vegetation species; and
4) The presence of redoximorphic soil features, which are morphological signatures that appear in soils with prolonged periods of saturation.

[5] The definitions as provided by the NWA (Act No. 36 of 1998) are the only legislated definitions of wetlands in South Africa.

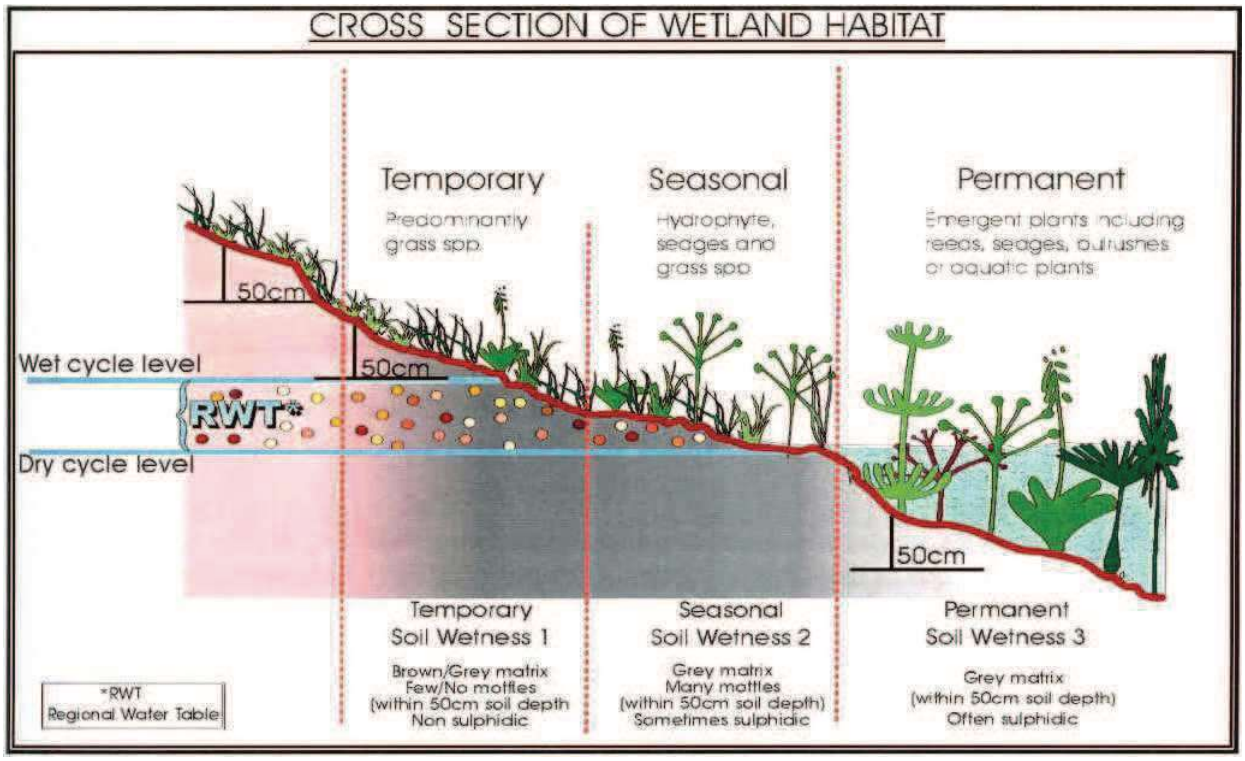

Figure 2: Cross section through a wetland (after DWAF, 2005).

Table 3: Vegetation characteristics used in the delineation of wetlands (after DWAF, 2005).

Terrestrial / Non wetland	Temporary	Seasonal	Permanent / Semi-permanent
Dominated by plant species which occur extensively in non-wetland areas; hydrophytic[6] species may be present in very low abundance	Predominantly grass species; mixture of species which occur extensively in non-wetland areas and hydrophytic plant species which are restricted largely to wetland areas	Hydrophytic sedge and grass species which are restricted to wetland areas	Dominated by emergent plants, including reeds, sedges and bulrushes or floating or submerged aquatic plants

1.8 Freshwater Feature Classification

Ecosystems included within the 'Classification System for Wetlands and other Aquatic Ecosystems in South Africa' (hereafter referred to as 'the Classification System') developed by Ollis *et. al*., (2013) encompass those that the Ramsar Convention defines, rather broadly, as 'wetlands', namely areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres (cited by Ramsar Convention Secretariat, 2011). The inland component of the Classification System has a six-tiered structure presented in Figure 3 below.

[6] Plants that are physiologically bound to water where at least part of the generative cycle takes place in the water or on the surface.

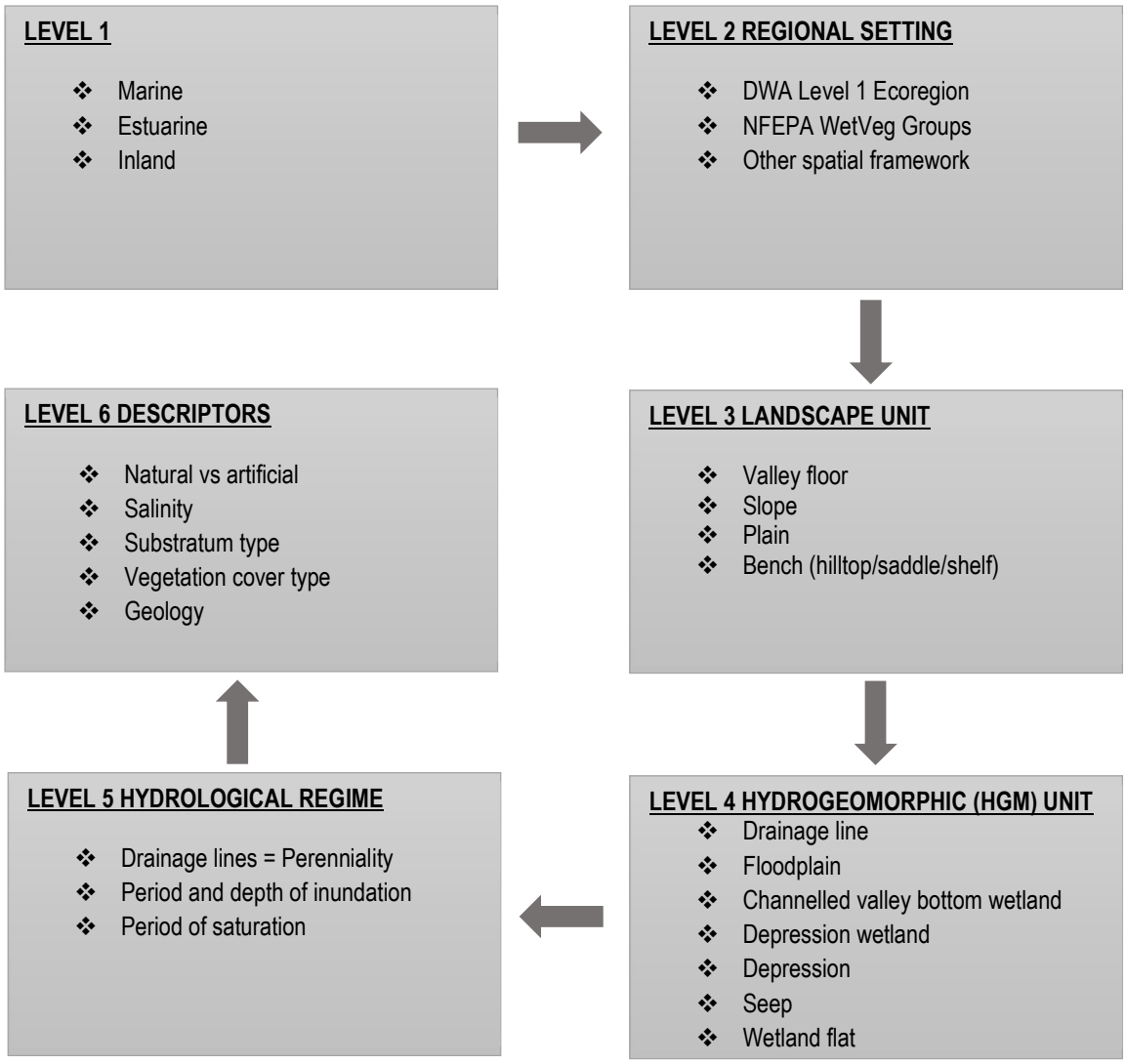

Figure 3: Classification System for wetlands and other aquatic ecosystems in South Africa.

1.9 Ecological Assessment Methodology for Wetlands

1.9.1 Ecosystem Services

WET-EcoServices (Kotze *et. al.* 2007) was designed for inland palustrine wetlands and has been developed to help assess 15 key goods and services that individual wetlands provide in order to allow for more informed planning and decision making. Central to WET-EcoServices is the characterisation of Hydrogeomorphic (HGM) units by which the wetland can be divided into units of a similar character. The rationale behind characterising the HGM units of a wetland is that areas belonging to the same HGM type and falling within a similar geological and climatic setting are likely to have a similar structure and exhibit similar processes.

1.9.2 Present Ecological State (PES)

WET-Health (Macfarlane, 2007) is a tool designed to assess the health or integrity of a wetland. Wetland health is defined as a measure of the deviation of wetland structure and function from the wetland's natural reference condition. This technique attempts to assess hydrological, geomorphological and vegetation health in three separate modules. The modules may then be combined to determine the overall Present Ecological State (PES) of the wetland. A Level 1 WET-Health assessment was undertaken as part of this assessment.

Table 4: PES categories as defined in WET-Health (Macfarlane, 2007).

Description	Combined impact score	PES Category
Unmodified, natural.	0-0.9	A
Largely natural with few modifications. A slight change in ecosystem processes is discernable and a small loss of natural habitats and biota may have taken place.	1-1.9	B
Moderately modified. A moderate change in ecosystem processes and loss of natural habitats has taken place but the natural habitat remains predominantly intact	2-3.9	C
Largely modified. A large change in ecosystem processes and loss of natural habitat and biota and has occurred.	4-5.9	D
The change in ecosystem processes and loss of natural habitat and biota is great but some remaining natural habitat features are still recognizable.	6-7.9	E
Modifications have reached a critical level and the ecosystem processes have been modified completely with an almost complete loss of natural habitat and biota.	8 - 10	F

1.9.3 Ecological Importance and Sensitivity (EIS)

The EIS method applied to wetlands is based on the assessment tool developed by Rountree *et. al.* (2014) and was used to determine the ecological importance and sensitivity of wetlands, incorporating the traditionally examined criteria used in EIS assessments of other water resources by the Department of Water Affairs (DWA) and thus enabling consistent assessment approaches across water resource types.

Hydro-functional importance and basic human needs have been assessed as part of the WET-EcoServices and were therefore excluded. In the method a series of determinants are assessed on a scale of 0 to 4, where “0” indicates no importance and “4” indicates very high importance.

1.9.4 Recommended Ecological Category (REC)

The Recommended Ecological Category (REC) is determined by the PES score as well as importance and/or sensitivity. Water resources which have a PES falling within an E or F ecological category are deemed unsustainable. In such cases the REC must automatically be increased to a D. Where the PES is determined to be within an A, B, C or D ecological category, the EIS components must be evaluated to determine if any of the aspects of importance and sensitivity are high or very high. If this is the case, the feasibility of increasing the PES (particularly if the PES is in a low C or D category) should be evaluated and either set at the same ecological category or higher depending on feasibility. This is recommended to enable important and/or sensitive water resources to maintain their functionality and continue to provide the goods and services for the environment and society.

1.9.5 Buffer Requirements

The buffer zone tool for the determination of the minimum effective wetland buffer (Macfarlane *et al*., 2014) is typically used to calculate the minimum buffer. The tool requires various inputs including the PES. As such the tool can only be applied after a detailed ecological assessment of the watercourses in question have been undertaken. In this case, due to the nature of the proposed activity which entails pipeline crossings of watercourses means that application of the buffer zone tool serves no purpose.

1.10 Ecological Assessment Methodology for Drainage Lines

1.10.1 Present Ecological State (PES)

The drainage line Intermediate Habitat Integrity Assessment (IHIA) method (Kemper, 1999) is used to determine the PES of drainage lines. The drainage line IHIA is based on two components of the watercourse, the riparian zone and the instream channel. Assessments are made separately for both aspects, but data for the riparian zone is primarily interpreted in terms of the potential impact on the instream component. The method involves the rating of the perceived modification of nine instream criteria and eight riparian criteria against a set scoring guideline. The final score is derived by calculating the average scores, which places the final score in one of the categories listed in Table 4 below.

Table 5: Intermediate Habitat Integrity Assessment (IHIA) categories (From Kemper, 1999).

Category	Description	Score (% of total)
A	Unmodified, natural.	90-100
B	Largely natural with few modifications. A small change in natural habitats and biota may have taken place but the ecosystem functions are essentially unchanged.	80-90
C	Moderately modified. A loss and change of natural habitat and biota have occurred but the basic ecosystem functions are still predominantly unchanged.	60-79
D	Largely modified. A large loss of natural habitat, biota and basic ecosystem functions has occurred.	40-59
E	The loss of natural habitat, biota and basic ecosystem functions is extensive.	20-39
F	Modifications have reached a critical level and the lotic system has been modified completely with an almost complete loss of natural habitat and biota. In the worst instances the basic ecosystem functions have been destroyed and the changes are irreversible.	0

1.10.2 Ecological Importance and Sensitivity

The EIS method applied to drainage lines is based on the approach adopted by the DWA as detailed in the document “Resource Directed Measures for Protection of Water Resources” (1999). In the method a series of determinants are assessed on a scale of 0 to 4, where “0” indicates no importance and “4” indicates very high importance. The EIS score also provides guidance on the recommended ecological category of the watercourse assessed.

1.10.3 Recommended Ecological Category (REC)

The Recommended Ecological Category (REC) is determined by the PES score as well as importance and/or sensitivity. Drainage lines which have a PES falling within an E or F ecological category are deemed unsustainable. In such cases the REC must automatically be increased to a D. Where the PES is determined to be within an A, B, C or D ecological category, the EIS components must be evaluated to determine if any of the aspects of importance and sensitivity are high or very high. If this is the case, the feasibility of increasing the PES (particularly if the PES is in a low C or D category) should be evaluated and either set at the same ecological category or higher depending on feasibility. This is recommended to enable important and/or sensitive drainage lines to maintain their functionality and continue to provide the goods and services for the environment and society.

1.11 Impact Assessment

A summary of the method of assessment is provided below; the detailed method is provided in Appendix 1.

The following criteria were taken into consideration when determining the significance of potential impacts associated with the proposed development:

- The nature of the potential impact i.e. positive, negative, direct, indirect;
- The extent and location of the potential impact;
- The duration of the potential impact i.e. short term, medium term, permanent;
- The intensity (or magnitude) of the potential impact i.e. low, medium, high; and
- The likelihood or probability of the potential impact having occurred.

Mitigation measures were subsequently identified and recommended for the identified potential impacts with the purpose of reducing the overall impact significance to an acceptable level, where and if possible (the resultant impact significance is determined and provided in the impact rating tables). Mitigation measures were aimed to ensure that:

- Alternative and more environmentally sound designs / layouts / technologies, etc., are implemented, if feasible;
- Environmental benefits of the proposed development are enhanced;
- Negative impacts are avoided, minimised or remedied; and
- Residual negative impacts are kept within acceptable levels.

This method of assessment was applied to the proposed development (only the preferred alignment as provided by the EAP) and the No-Go alternative in accordance with accepted best-practise methods.

Results

1.12 Desktop Assessment

1.12.1 Ecological Setting

The study area lies in the Southwestern Coastal Belt ecoregion (Kleynhans *et al*, 2005), the main features of which are summarised in Table 5 which is adapted from Cape Farm Mapper website (https://gis.elsenburg.com/apps/cfm/). Local climatic, topographic and soil conditions for the study area are shown in Table 6, which is also adapted from the Cape Farm Mapper website. The study area is furthermore within the Berg Water Management Area (WMA), the Greater Cape Town Sub-WMA and the G22H quaternary catchment.

According to Mucina and Rutherford (2006, updated 2012 & 2018), the proposed site is located within the Swartland Granite Renosterveld which is listed as Endangered (E) according to the Government Gazette No. 47526 of November 2022. The NFEPA wetland vegetation database (2011) does not identify any wetland vegetation type for the proposed site and immediate surrounds but does identify a small patch of West Coast Silcrete Renosterveld to the north of the Polkadraai Reservoir (also referred to as the Skilpadvlei Reservoir) which is the proposed source of the water supply for the proposed urban development. This patch of West Coast Silcrete Renosterveld will not be affected in any way by the proposed installation of the external services.

The underlying geology of the area consists of granite and deposits of weathering products of granite of the Kuils River-Helderberg Pluton, Cape Granite Suite and occasional Quaternary quartz sand of the Springfontein Formation and alluvium. Soils are of a moderate depth and show a marked accumulation of clay. The above average clay content, mid soil depth, mediocre rainfall indicates that in areas of flat topography wetland conditions are expected to be associated with depressions and drainage lines whereas in the steeper sloping areas wetland conditions would be expected to be associated with areas of seepage as well as drainage lines.

Table 6: Overview of the South Western Coastal Belt Ecoregion (adapted from Kleynhans et al, 2005)

Main Attributes	South Western Coastal Belt Ecoregion
Geology	Granite, quartzitic sandstone, quartzite, conglomerate, slate
Vegetation	Sand Plain Fynbos; Mountain Fynbos; West Coast Renosterveld; Dune Thicket; Strandveld Succulent Karoo
Landscape	Closed hills; mountains; moderate and high relief
Mean altitude	300-900m AMSL

Table 7: Local climate, topography and soil conditions (adapted from Cape Farm Mapper, 2022)

Parameters	Local Conditions
Mean annual precipitation (mm)	630 mm
Mean annual runoff (mm/annum)	140 mm/annum
Mean annual temperature (°C)	16.1°C
Elevation (m above mean sea level)	30 – 150 m
Slope classification (%)	0 – 30 %
Soil characteristics	Soils with a marked clay accumulation, strongly structured and a non-reddish colour. In addition, one or more of vertic, melanic and plinthic soils may be present.
Soil depth (mm)	>= 450 mm and < 750 mm
Soil clay content (%)	< 15%

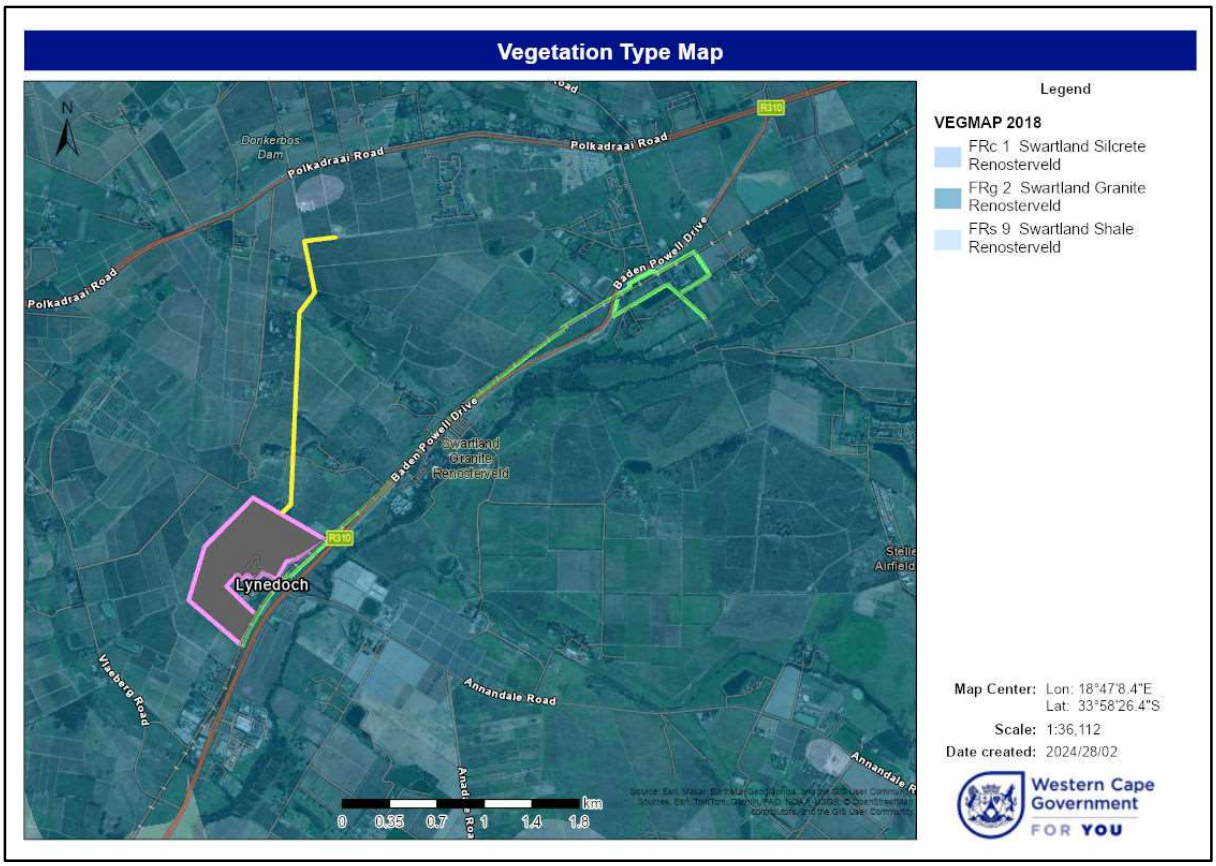

Figure 4: Terrestrial vegetation type of the proposed site (Mucina & Rutherford, 2006, updated 2018). The proposed urban node is indicated as purple polygon, the new water pipeline as a yellow line and the new sewerage pipeline as a green line.

Figure 5: Wetland Vegetation Type according to NFEPA (2011). The green polygon indicates the extent of West Coast Silcrete Renosterveld. The yellow line indicates the proposed alignment of the water supply pipeline from the reservoir towards the proposed urban development.

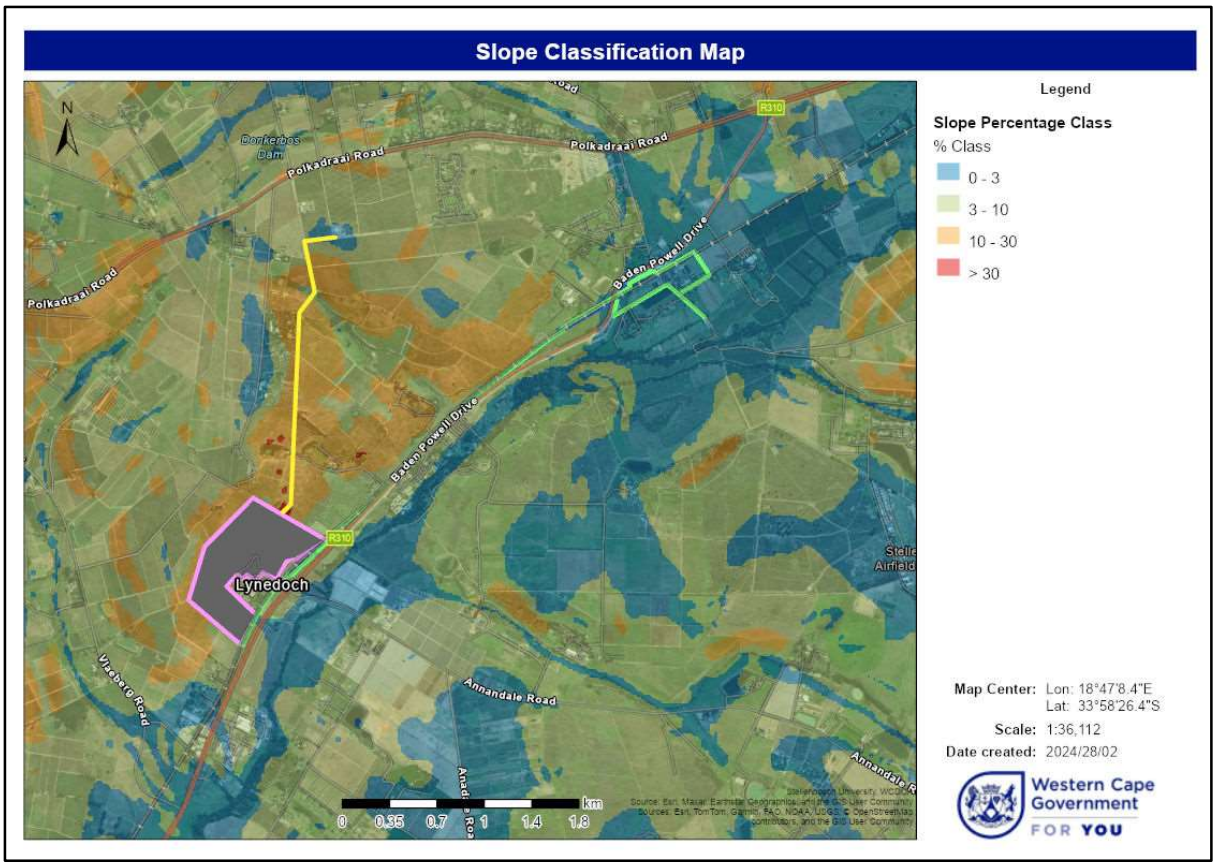

Figure 6: Slope expressed as a percentage of the vertical, such that horizontal is 0% and vertical is 100%. The slope of the proposed site is between 0 and 5% (Cape Farm Mapper, 2022). The proposed urban node is indicated as purple polygon, the new water pipeline as a yellow line and the new sewerage pipeline as a green line.

1.12.2 Watercourses within the Study Area and within the Regulated Zone

The National Geospatial Information (NGI) Service (Cape Farm Mapper, 2022) and the National Wetlands Map 5 (CSIR, 2018) were consulted to determine the presence of watercourses within 500m of the proposed site, in accordance with the regulated zone for wetlands as defined by the NWA (1998).

The NGI topo-cadastral map identifies several drainage lines in the surrounding area (see Figure 6). The proposed water pipeline would cross two separate non-perennial drainage lines with the northern-most drainage line indicated to discharge into the perennial Jonkershoek River approximately 1,7 km south east of the crossing point and the southern-most drainage line indicated to end at an impoundment approximately 150m to the east of the crossing point.

The proposed sewerage pipeline would cross the Sand River immediately south of Baden Powell Drive (within the Baden Powell Road Reserve). The Sand River discharges into the perennial Jonkershoek River approximately 600m south west from the crossing point.

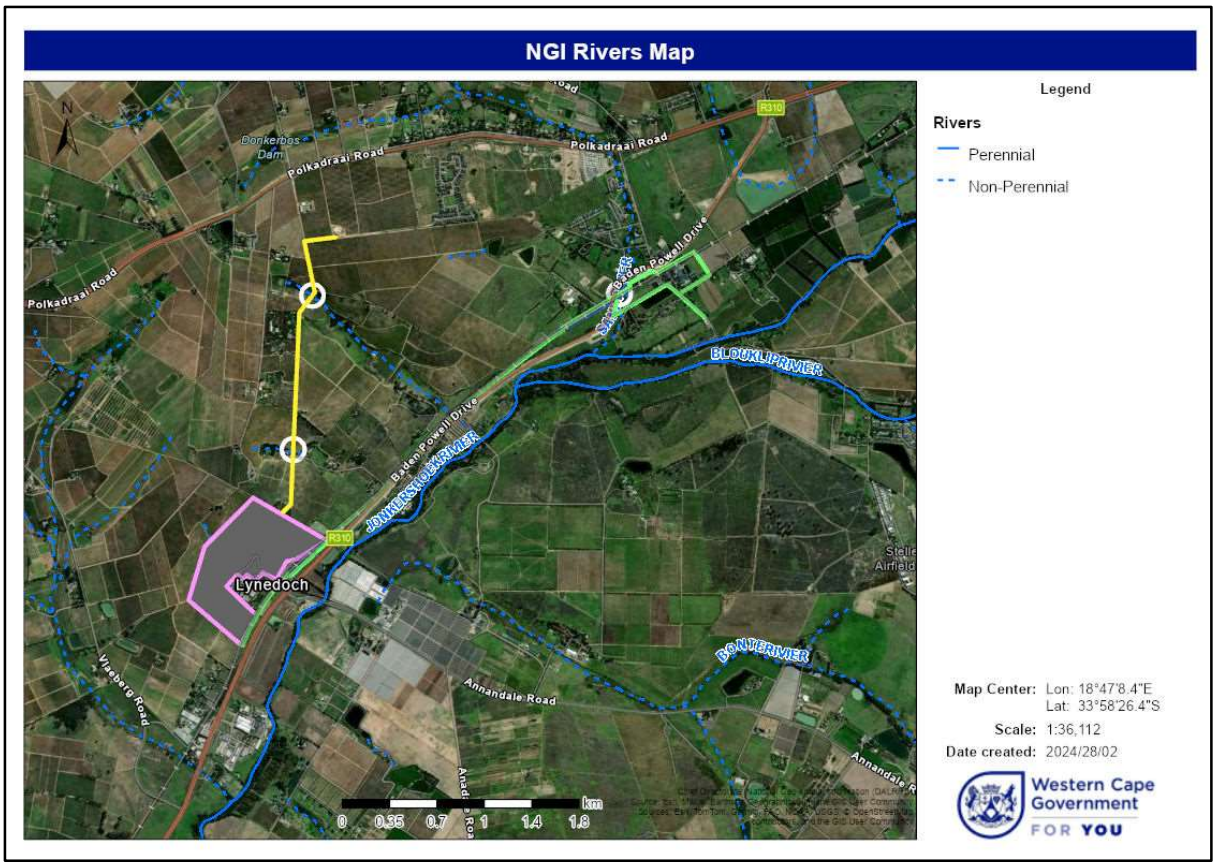

Figure 7: NGI Rivers Map (Cape Farm Mapper, 2024). The proposed urban node is indicated as purple polygon, the new water pipeline as a yellow line and the new sewerage pipeline as a green line.

The National Wetlands Map Version 5 (CSIR, 2018) indicates no wetlands within the regulated zone of the two new pipelines (see Figure 7). The NFEPA wetlands layer indicates numerous artificial wetlands (mostly irrigation dams) but no natural wetlands within the regulated zone of either pipeline (see Figure 8).

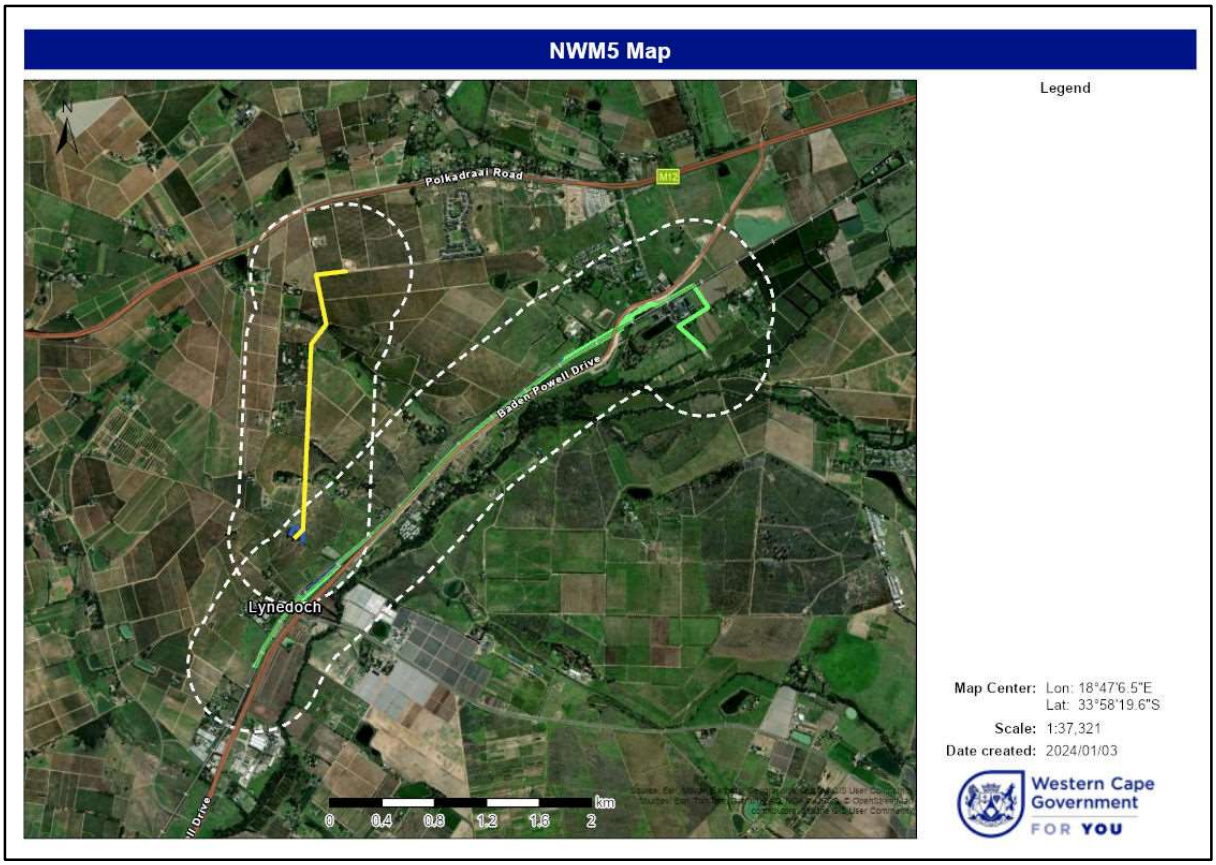

Figure 8: Wetlands within 500m of the site according to the National Wetlands Map Ver 5 (CSIR, 2018).

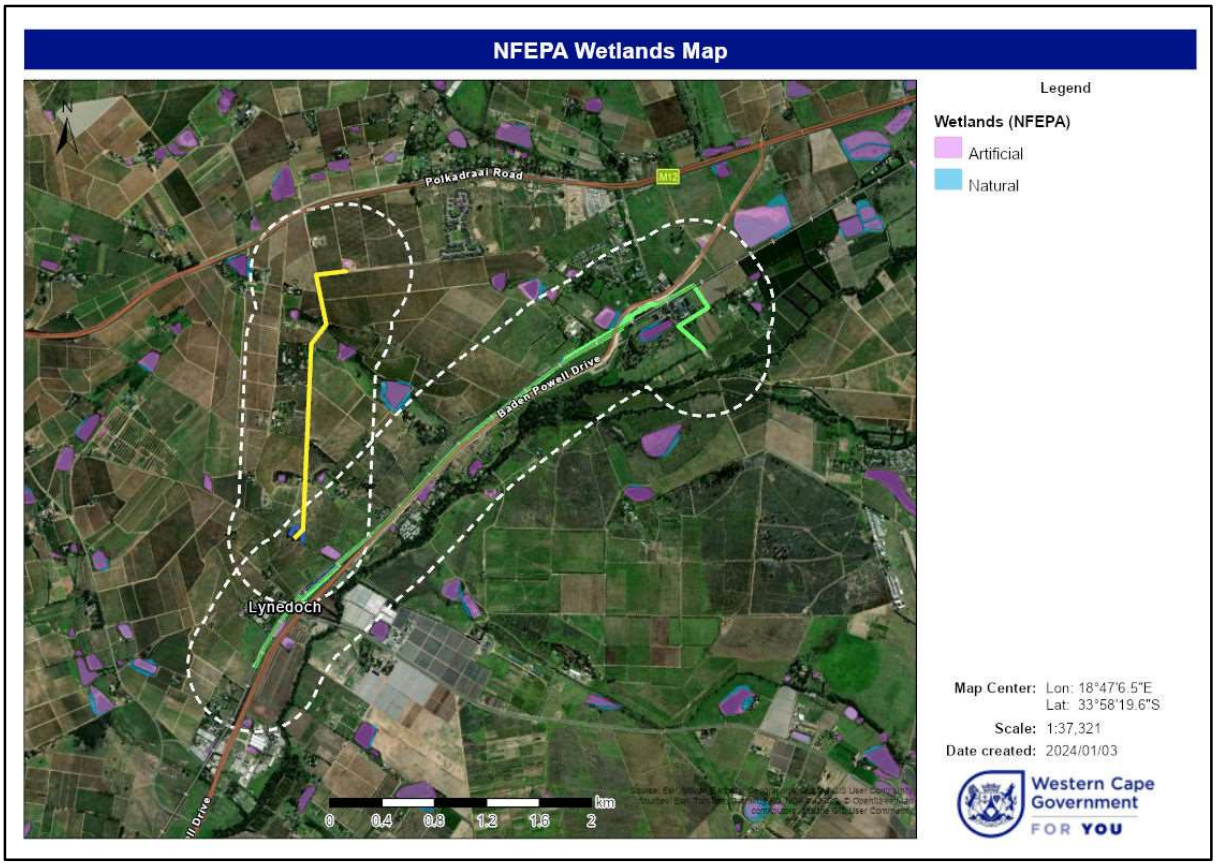

Figure 9: Wetlands within 500m of the site according to the NFEPA wetlands layer (2011).

The WCBSP (2017) identifies areas of conservation importance Protected Areas, Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs). All of the affected non-perennial drainage lines have been identified as restorable ESAs (i.e. ESA2 - see Figure 10). In addition, small parts of the Jonkershoek River immediately downstream of its confluence with the Sand River have been identified as Aquatic CBAs.

Restorable ESAs are regarded as areas that are not essential for meeting biodiversity targets, but that play an important role in supporting the functioning of CBAs, and are often vital for delivering ecosystem services. Restorable ESAs should be restored and/or manage to minimise impacts on ecological processes and ecological infrastructure functioning, especially soil and water-related services, and to allow for faunal movement.

CBAs are areas in a natural condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure. CBAs should be maintained in a natural or near-natural state, with no further loss of natural habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate in CBAs.

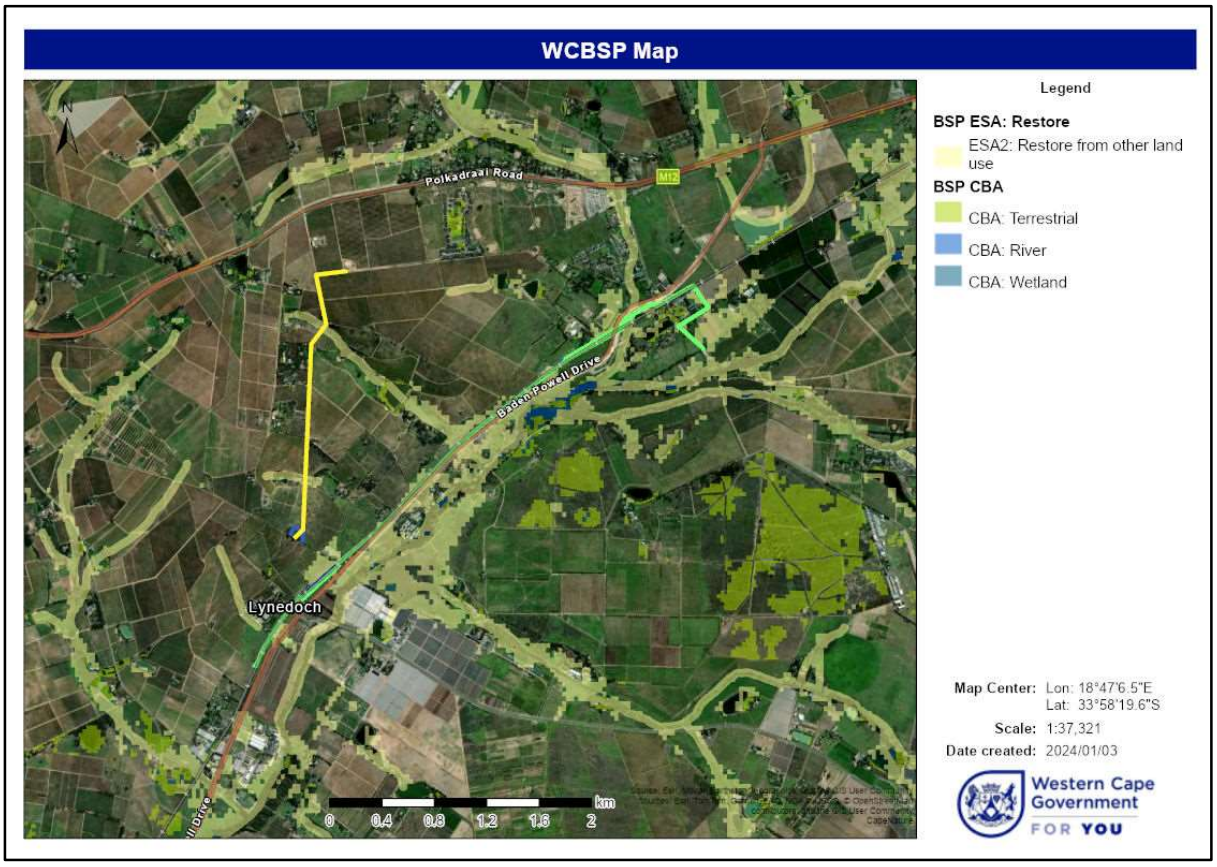

Figure 10: Conservation Importance Map (WCBSP, 2017).

1.13 Site Investigation

1.13.1 Site Description

Given that the Virdus Works Environmental instructed EnviroSwift to assess three identified crossing points of the two pipelines only, the site visit focussed only on these areas (see Figure 11). Each crossing point is described separately below.

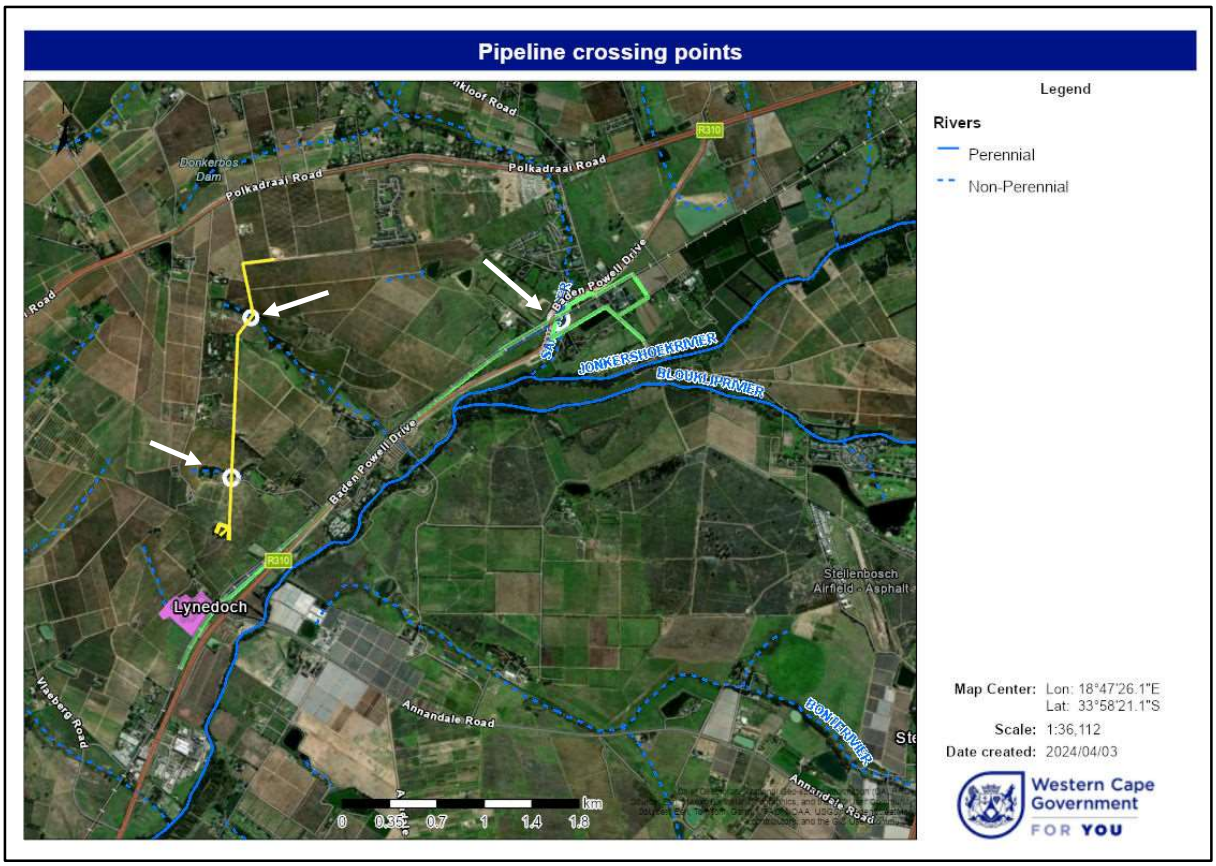

Figure 11: Pipeline crossings Map (Cape Farm Mapper, 2024). The white arrows indicate the crossing points.

Site 1: 'Clean' watercourse water pipeline crossing

The first water pipeline crossing visited was indicated as the 'clean' watercourse crossing for the reason that the watercourse was in the least impacted state of the three watercourses to be crossed by external infrastructure. The watercourse originates approximately 250m to the north-west of the proposed crossing site in a small valley surrounded by vineyards and has been impounded at its source. The proposed crossing point is also a historic vehicular crossing point although at the time of the site visit recent flooding (presumably the 2024 floods that affected most of the Western Cape) had caused severe erosion of the farm road leading towards the crossing point and use of the crossing point appears to have ceased.

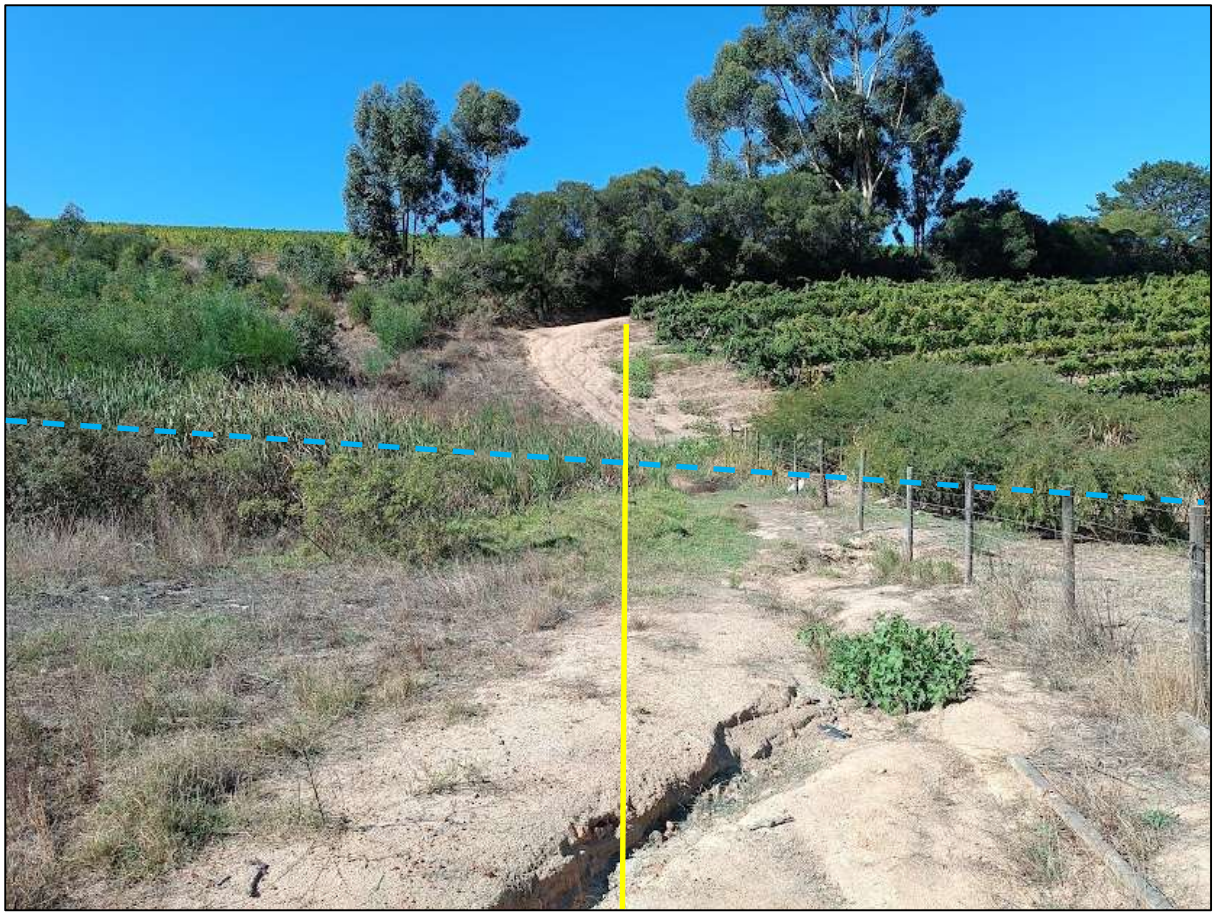

Figure 12: Photograph of the proposed water pipeline crossing of the 'clean' watercourse. The approximate alignment of the pipeline is indicated as a yellow line and the watercourse as a blue stippled line. Note the erosion of the farm road in the foreground

Site 2: 'Landfill' watercourse water pipeline crossing

The second water pipeline crossing visited was referred to as the 'landfill' watercourse crossing due to the watercourse having been used historically as a farm landfill. While there was recent evidence of efforts to remove the waste material from the watercourse, solid waste deposits were still clearly evident. The watercourse has been impounded at its source approximately 150m upstream from the proposed crossing point and ends in a second impoundment approximately 150m downstream from the proposed crossing point. The portion upstream from the proposed crossing point is significantly less impacted than the lower portion which exhibits evidence of significant earthworks and vegetation removal, presumably as a result of the rehabilitation efforts. The proposed water pipeline would cross in this lower, severely impacted portion as shown in Figure 12.

Figure 13: Photograph of the 'landfill' watercourse crossing site. The approximate alignment of the pipeline is indicated as a yellow line and the watercourse as a blue stippled line.

Site 3: Sewerage pipeline crossing of the Sand River

The proposed sewerage pipeline crossing of the Sand River is located in the road reserve of the R310 ('Baden Powell Drive'). This area is currently subjected to extensive transformation due to the current upgrading of the R310 in the vicinity of Vlottenberg. The result is that the Sand River now discharges from a new culvert beneath the R310 into a newly created, trapezoidal, earthen channel prior to its discharge beneath a railway line after which it continues as a relatively intact system. The proposed sewerage pipeline would cross this newly shaped channel as shown in Figure 13.

Figure 14: Photograph of the Sand River crossing site. The approximate alignment of the pipeline is indicated as a yellow line and the watercourse as a blue stippled line. Note the newly shaped banks and the extensive clearance of vegetation as well as the railway bridge located approximately 30m downstream of the proposed crossing point.

1.13.2 Vegetation

The vegetation associated with freshwater habitat present in the vicinity of each of the crossings is described separately in the following sections.

Site 1: 'Clean' watercourse water pipeline crossing

The vegetation associated with the watercourse immediately upstream of the proposed crossing point is dominated by *Typha capensis* (bullrush) which occurs in an area of flatter topography of approximately 300 square metres. Further upstream up until its source which is marked by an impoundment, the watercourse flows through a moderately sloping valley with smaller patches of *T. capensis* and flanking areas dominated by alien invasive species including *Acacia longifolia* and *Pennisetum clandestinum*. Downstream of the proposed crossing point until a second impoundment some 180m to the south east, the watercourse flows through a slight to moderately sloping area where the watercourse is characterised by relatively dense macrophytes dominated by alien invasive species such as *A. longifolia* and *Populus canescens* (grey poplar) as depicted in Figure 15. *Rubus* sp. (bramble) as well as *Pennisetum clandestinum* are also evident as examples of invasive herbs and grasses. Indigenous macrophytes are also present and included *Olea europaea* subs. *africana* (wild olive) and another prevalent yet unidentifiable species. Also present in this portion of the watercourse were unidentifiable indigenous sedges, *T. capensis* and *Zantedeschia aethiopica* (arum lily). Evidence of livestock grazing exists in the form of hoof prints in the muddy areas with several sedges having been eaten back, hence not being identifiable.

Figure 15: Photograph of the portion of the 'clean' watercourse immediately downstream of the proposed crossing point.

Site 2: 'Landfill' watercourse water pipeline crossing

While the proposed crossing point was entirely devoid of vegetation the area, upstream of the proposed crossing point and surrounding the upstream impoundment was a stand of relatively dense macrophytes dominated by the invasive alien *Acacia melanoxylon* (Blackwood) and the indigenous *Olea europaea* subs. *Africana* (wild olive). Also present within the HGM unit immediately upstream of the proposed crossing point was a stand of *Phragmites australis* (common reed) as shown in Figure 16. The only other alien invasive identified within close proximity to the drainage line was *Acacia saligna* (Port Jackson willow) which occurred in low numbers in the area surrounding the area used as a landfill.

Downstream of the area devoid of vegetation and subjected to recent earthworks is an impoundment which is dominated by *T. capensis* (see Figure 17). This impoundment is indicated as the end-point of the watercourse according to the NGI Rivers database (see Figure 6). During the site visit no clear overflow channel was identifiable at the impoundment and there was no evidence of a clear drainage channel downstream of the impoundment which supports the online NGI rivers map which indicates that the watercourse ends at the second impoundment.

Figure 16: Photograph of the portion of the 'landfill' watercourse immediately upstream of the proposed crossing point. Note the presence of solid waste and the small stand of *Phragmites australis* (common reed).

Figure 17: Photograph of the portion of the 'landfill' watercourse downstream of the proposed crossing point. Note the presence of *Typha capensis* which is present within an impounded portion of the watercourse. This impoundment marks the end of the drainage line according to the NGI database.

Site 3: Sewerage pipeline crossing of the Sand River

The portion of the Sand River in the vicinity of the proposed sewerage pipeline crossing point is almost entirely devoid of vegetation due to the recent extensive earthworks (see Figure 14). A few individual plants had however survived including *Cyperus textilis* (see Figure 18) and *T. capensis*. A few specimens of the highly invasive *A. saligna* were also evident in the immediate surroundings.

Figure 18: Photograph of one of the few surviving plants within the recently channelised portion of the Sand River. The species photographed is *Cyperus textilis*.

1.13.3 Soils and Hydrology

The soils and the nature of the hydrological regime of the watercourses in the vicinity of each of the crossings is described separately in the following sections.

Site 1: 'Clean' watercourse water pipeline crossing

The soil auger sample obtained from the Typha-dominated area immediately upstream of the proposed crossing point exhibited a high degree of soil wetness, a low chroma and also a high level of organic material which is typical of the wetland permanent zone (see Figure 19).

Trickle flow was present at the crossing point and given the presence of *T. capensis* immediately upstream and also downstream of the crossing point suggests that the watercourse is characterised by permanently saturated soils as *T. capensis* requires permanent levels of soil saturation in order to thrive.

Figure 19:. Photograph of the soil augered from within the areas dominated by *T. capensis* located immediately upstream and downstream of the proposed water pipeline crossing point.

Site 2: 'Landfill' drainage line water pipeline crossing

Auger samples within the vicinity of the proposed crossing point did not reveal any wetland characteristics and, while these were inconclusive due to the extent of soil disturbance in the area, did present alluvial characteristics which were evident in the excavated materials. Evidence of flow was completely absent during the site investigation confirming the ephemeral nature of flow in the watercourse.

Site 3: Sewerage pipeline crossing of the Sand River

Auger samples taken within close proximity to the proposed crossing point did not reveal any wetland or alluvial characteristics which was most likely due to the extent of earthworks and the channelisation of the watercourse. It is accordingly not possible to determine whether this portion of the watercourse historically existed as a wetland or an alluvial system (i.e. stream / drainage line). Flow was evident as trickle flow which, given the time of the site assessment in the driest time of the year, suggests that flow may be perennial (i.e. the Sand River downstream of the R310 could well be a perennial system). The presence of *T. capensis*, albeit in very low numbers, would support this conclusion as *T. capensis* is known to be associated with permanent levels of soil saturation.

1.13.4 Watercourse Delineation

The findings of the wetland delineation are presented below according to each of the proposed crossing points.

Site 1: 'Clean' watercourse

The area immediately upstream of the proposed crossing point to the downstream impoundment was mapped as an unchannelled valley bottom wetland based on a combination of soil characteristics and vegetation, which included wetland obligate and facultative species, as described in Sections 3.2.2 and 3.2.3. The area upstream of the crossing point was not ground-truthed as this area will not be impacted by the proposed pipeline crossing due to it being upslope of the crossing point. This area was identified

as comprising a mosaic of Typha-dominated wetland habitat based on Google Earth aerial imagery. The results of the wetland delineation are presented in Figure 20.

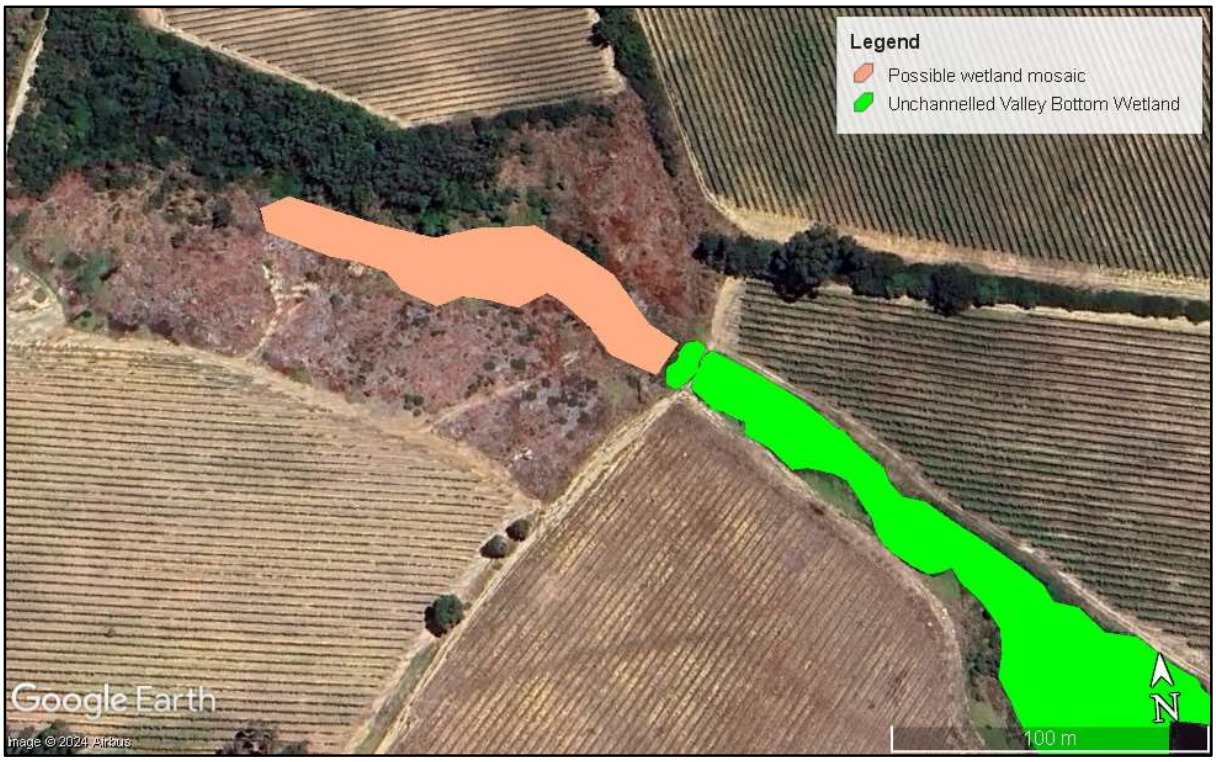

Figure 20: Watercourse delineation Map for the 'clean' drainage line crossing point.

Site 2: 'Landfill' watercourse water pipeline crossing

While soils could not be conclusively determined to exhibit wetland or alluvial characteristics due to the extensive earthworks that had taken place in the vicinity of the proposed crossing point, the watercourse is determined to comprise a non-perennial drainage line. The extent of riparian vegetation was difficult to confirm as the indigenous tree species dominant in this area (*O. capensis* and *Acacia melanoxylon*) comprised species common to terrestrial conditions and not exclusive to riparian areas.

Figure 21: Watercourse delineation Map for the 'landfill' drainage line crossing point.

Site 3: Sewerage pipeline crossing of the Sand River

Auger samples revealed no conclusive evidence of groundwater versus allivial ecosystem drivers which would allow for a conclusive determination of the classification of the watercourse as a wetland versus a drainage line or stream due to the extreme levels of soils disturbance. Given that the watercourse is mapped as a drainage line in the NGI Rivers database and also the WCBSP (2017) did not identify any CBA wetlands but rather CBA rivers, the watercourse classification as a non-perennial drainage line will be used for the purposes of this assessment.

Figure 22: Watercourse delineation Map for the Sand River at the proposed sewerage pipeline crossing point. The blue line indicates the alignment of the Sand River and the yellow line the approximate position of the proposed sewerage pipeline. Note the extent of earthworks immediately south of the R310.

1.14 Watercourse Classification

In terms of wetland and aquatic ecosystem classification user manual (Ollis *et. al.* 2013) the various watercourses affected by the proposed external services installations are classified as follows:

- 'Clean' watercourse: Unchannelled Valley Bottom Wetland;
- 'Landfill' watercourse: Non-perennial Drainage Line; and
- 'Sand' River: Non-perennial Drainage Line.

Tables 8 - 10 summarises the results from **Level 3** through to **Level 6** of the wetland and aquatic ecosystem classification user manual (Ollis *et. al.* 2013) applied to each of the affected watercourses.

Table 8: Level 3, 4, 5 and 6 of the wetland and aquatic ecosystem classification for the 'clean' watercourse.

Level 3 (Landscape Setting)	**Valley Floor:** the base of a valley, situated between two distinct valley side-slopes, where alluvial or fluvial processes typically dominate.
Level 4 (Hydrogeomorphic unit)	**Unchannelled Valley Bottom Wetland:** a valley-bottom wetland without a drainage line channel running through it.
Level 5 (Hydrological regime)	**Non-perennial:** does not contain surface water continuously throughout the year, although pools may persist.
Level 6 (Descriptors)	**Natural:** may be impacted, or even realigned, but of natural origins.

Table 9: Level 3, 4, 5 and 6 of the wetland and aquatic ecosystem classification for the 'landfill' watercourse.

Level 3 (Landscape Setting)	**Valley Floor:** the base of a valley, situated between two distinct valley side-slopes, where alluvial or fluvial processes typically dominate.
Level 4 (Hydrogeomorphic unit)	**Drainage line:** a linear landform with clearly discernible bed and banks, which permanently or periodically carries a concentrated flow of water.
Level 5 (Hydrological regime)	**Non-perennial:** does not contain surface water continuously throughout the year, although pools may persist.
Level 6 (Descriptors)	**Natural:** may be impacted, or even realigned, but of natural origins.

Table 10: Level 3, 4, 5 and 6 of the wetland and aquatic ecosystem classification for the Sand River.

Level 3 (Landscape Setting)	**Valley Floor:** the base of a valley, situated between two distinct valley side-slopes, where alluvial or fluvial processes typically dominate.
Level 4 (Hydrogeomorphic unit)	***Not possible to determine due to extensive soil disturbance but based on the available online databases is considered to be a drainage line.***
Level 5 (Hydrological regime)	**Non-perennial:** does not contain surface water continuously throughout the year, although pools may persist.
Level 6 (Descriptors)	**Natural:** may be impacted, or even realigned, but of natural origins.

1.15 Ecological Assessment of the Unchannelled Valley Bottom associated with the 'clean' watercourse

1.15.1 Ecosystem Services

The WET-Ecoservices tool was applied to the unchannelled valley bottom wetland which would be crossed by the proposed water supply pipeline as shown in Figure 20 and comprised the assessment of 15 Ecosystem Services (see Figure 23). The rating of the ecosystem services provided by the wetland was calculated to be 1,4 which means that it was found to be in the **Intermediate** category (see Tables 11 & 12).

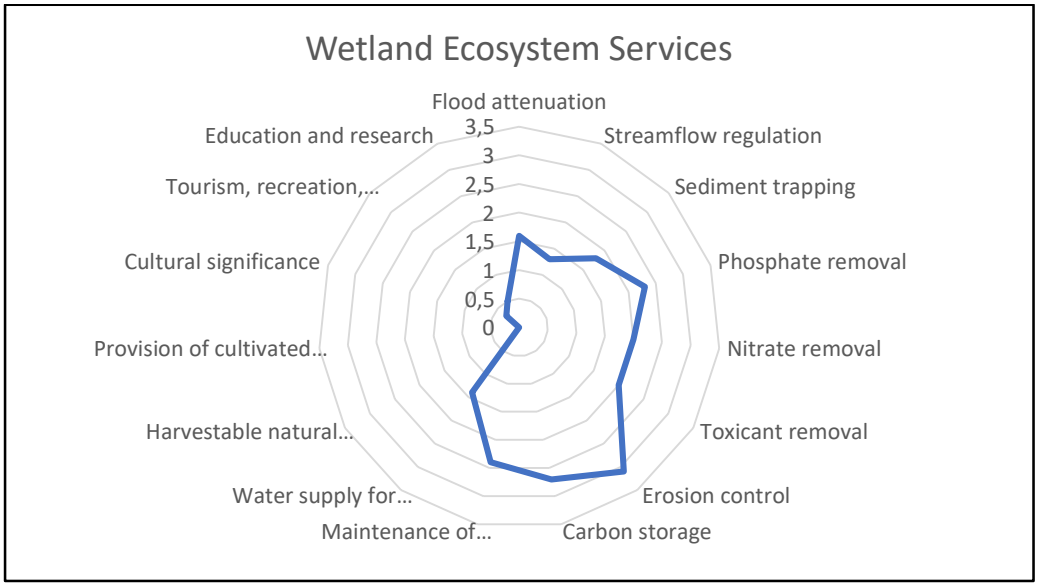

Figure 23: WET-EcoServices results for the on-site unchannelled valley bottom wetland.

Table 11: WET-EcoServices results.

Wetland Ecosystem Services		
		Current
Indirect Benefits	Flood attenuation	1,6
	Streamflow regulation	1,3
	Sediment trapping	1,8
	Phosphate removal	2,3
	Nitrate removal	2
	Toxicant removal	2
	Erosion control	3,1
	Carbon storage	2,7
Direct Benefits	Maintenance of biodiversity	2,4
	Water supply for direct human use	1,4
	Harvestable natural resources	0
	Provision of cultivated foods	0
	Cultural significance	0
	Tourism, recreation, scenic value	0,3
	Education and research	0,5
	Total	21,4
	Average	1,4

Table 12: WET-EcoServices categories.

Score (range 0 – 4)	<0.5	0.5-1.2	1.3-2.0	2.1-2.8	>2.8
Rating of the likely extent to which a benefit is being supplied	**Low**	**Moderately Low**	**Intermediate**	**Moderately High**	**High**

The most noteworthy findings are as follows:

- Of the 15 Ecosystem Services assessed, the wetland was found to be most effective in providing indirect services of erosion control which was the only service to obtain a score in the High range. Several factors contribute to this including the extent of vegetation cover and associated roughness of the HGM unit, the moderate slope of the catchment and the moderate to high run-off intensity and erodibility of the soil. These factors coupled with the lack of on-site evidence of erosion and lack of disturbance of the soil within the HGM unit suggest that the wetland is currently performing this role effectively.
- The wetland also achieved a significant score, albeit not in the high range for carbon storage and maintenance of biodiversity. Regarding the former, this score can be attributed to the fact that most of wetland comprises permanent and temporary zones and the lack of evidence of physical disturbance of the wetland's soils which would have led to desiccation and associated loss of carbon. Regarding the latter, this can be attributed mostly to the threat status (Endangered) of the applicable terrestrial vegetation type (West Coast Shale Renosterveld), as well as the extent of indigenous vegetation.

- The direct services of phosphate removal also scored in the Moderate-high range. This is primarily attributed to the full hydrological zonation with the greater extent of the wetland comprising permanently and seasonally saturated zones and the vegetated character of the wetland (comprising a variety of indigenous and exotic species which increases the wetlands' ability to provide these services, coupled with the catchment land use in the catchment (primarily vineyard cultivation) which contribute to above-normal sources of phosphates. Nitrate and toxicant, while not scoring in the Moderate-high range also showed notable potential with regards to performing these ecological services.
- In terms of the other indirect services of flood attenuation, streamflow regulation and sediment trapping, the relatively small size of the wetland relative to its catchment, the slight slope of the HGM unit and the extent of the permanent and temporary zones, all of which contribute to a relatively low retention period within the wetland, and the lack of any important wetlands downstream, limit the capacity of the wetland to provide these services.
- The only notable direct ecosystem service performed by the wetland is that of maintenance of biodiversity which was found to be Moderate-high.
- The wetland serves virtually no direct socio-economic and cultural benefits, but water is harvested for irrigation further upstream and downstream of the wetland.

1.15.2 Present Ecological State

Table 13 presents the impact scores for hydrology, geomorphology and vegetation condition and the trajectory of change for the unchannelled valley bottom wetland.

Table 13: WET-health assessment results for the unchannelled valley bottom wetland.

	Ha	Extent (%)	Hydrology		Geomorphology		Vegetation	
			Impact Score	Change Score	Impact Score	Change Score	Impact Score	Change Score
UVBW	0,03	100	**7,5**	**-1,0**	**4,2**	**-1,0**	**3,8**	**-1,0**
PES Category			**E**	↓	**D**	↓	**C**	↓

The overall PES for the off-site channelled valley bottom wetland was calculated to be 5,5 which falls within a **Category D ("Largely modified")**. This means that a large change in ecosystem processes and loss of natural habitat and biota has occurred. The key aspects to note from the PES assessment are as follows:

- The slight decrease in water input levels is attributed to the vineyards which makes up the majority of the catchment and the unconfirmed possibility that some of the water in the impoundment near the watercourses source is abstracted for irrigation. There is no source that would increase water inputs in the catchment. Flood peaks are expected to have increased as a result of the transformation of most of the catchment into vineyards.
- In terms of water distribution and retention patterns within the wetland, the wetland has been seriously modified as a result of the downstream and upstream effects of two impoundments (one near the watercourse's source approximately 200m upstream from the wetland and the other at the downstream end) and the inundation of the wetland by the downstream impoundment. The infilling of soil and rubble to create the vehicular crossing at the proposed crossing point of the wetland also contributes to this impacted state.
- The geomorphic state of the wetland has been moderately altered as a result of all of the above-mentioned factors including the upstream impoundment, the vehicular crossing and the catchment land use (predominantly vineyard cultivation).
- In terms of vegetation, approximately 20% of the wetland has been invaded by alien macrophytes including *P. canescens* and other exotic macrophytes as well as *Rubus* sp. (bramble) and the invasive *P. clandestinum* (kikuyu grass). The presence of *T. capensis* (regarded as indigenous) is indicative of elevated levels of nutrients, presumably fertilizers and pesticides applied in the catchment and therefore the extent rating for untransformed areas was excluded as the vegetation,

while being predominantly indigenous is not characteristic of the wetland in its reference condition (i.e. *T. capensis* would not have occurred in the wetland).
- Hydrology, geomorphology and vegetation are predicted to continue on a downward trajectory (i.e. an increasingly impacted condition in the future) as the catchment continues to become transformed and the indigenous vegetation occurring within the wetland continues to become out-competed by the alien invasive species.

1.15.3 Ecological Importance and Sensitivity

The EIS method applied to unchannelled valley bottom wetland is based on the assessment tool developed by Rountree *et. al.* (2013). Overall, the wetland was found to be of **low/marginal** EIS. The key aspects considered during the EIS assessment of the on-site wetland are presented in Table 14 and are as summarised as follows:

- The wetland is assessed as being of low/marginal importance for biodiversity support for the following reasons:
    - The wetland is not known nor is it likely to support any endangered or rare biota or populations of unique species, despite falling within the historical distribution of an Endangered (E) terrestrial vegetation type (West Coast Shale Renosterveld).
    - It is not known nor is it likely to be an important site for species migration, breeding and/or feeding and no such species were observed utilising the site in these ways during the site inspection.
    - The wetland is not recognised in the WCBSP (2017) as being of any importance from an aquatic biodiversity conservation perspective.
    - At the landscape scale the wetland has no protection status, has a PES of D (Largely modified), is not considered to be a wetland of any significant size or rarity and there are no known important wetlands further downstream.
- In terms of sensitivity the wetland is regarded as being moderately sensitive to changes in floods and changes in low-flow, owing primarily to its classification as a channelled valley bottom wetland, and is also sensitive to changes in water quality due to the low nutrient levels in the general area's freshwater systems (in their unimpacted, reference condition).

Table 14: EIS Results for the unchannelled valley bottom wetland.

ECOLOGICAL IMPORTANCE AND SENSITIVITY	Score (0-4)	Confidence (1-5)	Motivation
Biodiversity support			
Presence of Red Data species: Endangered or rare Red Data species present	1	3	Unlikely despite Endangered Vegetation Types (terrestrial).
Populations of unique species: Uncommonly large populations of wetland species	1	3	Limited possibility of unique species / large populations occurring.
Migration/breeding/feeding sites: Importance of the unit for migration, breeding site and/or feeding	1	4	Small wetland, transformed catchment therefore unlikely to be important site but does provide ecological connectivity.
Landscape scale			
Protection status of the wetland: National (4), Provincial, private (3), municipal (1 or 2), public area (0-1)	0	5	Not protected and not identified as being of any aquatic biodiversity importance.
Protection status of the vegetation type: SANBI guidance on the protection status of the surrounding vegetation	3	5	Poorly protected.
Regional context of the ecological integrity: Assessment of the PES (habitat integrity), especially in light of regional utilisation	1	5	PES D (largely modified) and no regional utilisation.
Size and rarity of the wetland type/s present: Identification and rarity assessment of the wetland types	2	4	Small wetland and moderate rarity due to poor protection status.
Diversity of habitat types: Assessment of the variety of wetland types present within a site	2	4	Only unchannelled valley bottom wetland with impoundments.
Sensitivity of the wetland			
Sensitivity to changes in floods: Floodplains at 4; valley bottoms 2 or3; pans and seeps 0 or 1	3	4	Valley bottom without a channel
Sensitivity to changes in low flows/dry season: (Unchannelled VBW's probably most sensitive)	3	4	Valley bottom without a channel
Sensitivity to changes in water quality: Esp. natural low nutrient waters – lower nutrients likely to be more sensitive	2	4	Changes in water quality has caused dominance by *T. capensis*.
ECOLOGICAL IMPORTANCE AND SENSITIVITY	Median value	**1**	

The EIS assessment determined that the EIS of the channelled valley bottom wetland was **Low/marginal**. This rating for the wetland means that the wetland is not ecologically important and sensitive at any scale. The biodiversity of these systems is ubiquitous and not sensitive to flow and habitat modifications. They play an insignificant role in moderating the quantity and quality of water of major drainage lines (see Table 15).

Table 15: EIS Category definitions.

EIS Category definitions	Range of EIS score
Very high: Wetlands that are considered ecologically important and sensitive on a national or even international level. The biodiversity of these systems is usually very sensitive to flow and habitat modifications. They play a major role in moderating the quantity and quality of water of major drainage lines	>3 and <=4
High: Wetlands that are considered to be ecologically important and sensitive. The biodiversity of these systems may be sensitive to flow and habitat modifications. They play a role in moderating the quantity and quality of water of major drainage lines.	>2 and <=3
Moderate: Wetlands that are considered to be ecologically important and sensitive on a provincial or local scale. The biodiversity of these systems is not usually sensitive to flow and habitat modifications. They play a small role in moderating the quantity and quality of water of major drainage lines.	>1 and <=2
Low/marginal: Wetlands that are not ecologically important and sensitive at any scale. The biodiversity of these systems is ubiquitous and not sensitive to flow and habitat modifications. They play an insignificant role in moderating the quantity and quality of water of major drainage lines.	>0 and <=1

1.15.4 Recommended Ecological Category

The EIS category of the wetland was determined to be **Low/marginal**. This EIS category means that the wetland is not ecologically important at any scale. The current PES of the wetland is a **Category D** (see Section 3.4.2) and given the low/marginal EIS the REC for the wetland remains a Category D. Therefore, it is not considered acceptable for any future development to cause any further deterioration in the PES.

1.16 Ecological Assessment of the 'landfill' non-perennial drainage line

Table 16 presents the Impact Scores for a number of riparian zone health criteria for the 'landfill' non-perennial drainage line from its source up to the downstream impoundment which is indicated in the NGI Rivers database to comprise the full length of the drainage line. Due to the ephemeral nature of the flow (zero flow was observed during the site investigation on 27 February 2024) the watercourse does not contain any instream habitat. As such it was considered appropriate to only assess the riparian component in order to determine the ecological health of the drainage line.

Table 16: Results of the Intermediate Habitat Integrity Assessment for the 'landfill' non-perennial drainage line.

	Impact Score, Post-development	Weight	IHI Score, Post-development
Instream criteria			
N/A			
Riparian zone criteria			
Indigenous vegetation removal	15	13	7,8
Exotic vegetation encroachment	13	12	6,24
Bank erosion	10	14	5,6
Channel modification	16	12	7,68
Water abstraction	6	13	3,12
Inundation	8	11	3,52
Flow modification	10	12	4,8
Water quality	10	13	5,2
Provisional Riparian Zone Habitat Integrity Score			56,04
Overall Habitat Integrity			**56.04**
PES Score			**"D"**

The 'landfill' non-perennial drainage line has been determined to have a PES of Category D ("Largely Modified") which means that a large loss of natural habitat, biota and basic ecosystem functions has

occurred. Channel modification and vegetation removal as a result of efforts to rehabilitate the portion of the drainage line used as a landfill are the most significant determinants of habitat modification. Also having a significant impact on the riparian habitat is the encroachment of exotic vegetation, bank erosion which has been exacerbated as a result of the removal of riparian vegetation, flow modification as a result of utilisation of water from the impoundment at the drainage line's source a short distance upstream and water quality impairment as a result of the waste body, all of which has not been removed.

1.16.1 Ecological Importance and Sensitivity

Table 17 presents the results of the EIS Assessment of the 'landfill' non-perennial drainage line.

Table 17: Results of Ecological Importance and Sensitivity (EIS) Assessment for the 'landfill' non-perennial drainage line.

ECOLOGICAL IMPORTANCE AND SENSITIVITY	Score (0-4)	Confidence (1-5)
Primary Determinants		
Presence of rare and endangered species	0	2
Populations of unique species	0	2
Species/taxon Richness	1	4
Diversity of habitat types and features	1	4
Migration/breeding/feeding site for drainage line species: Importance in terms of the link it provides for biological functioning	1	4
Sensitivity to changes in the natural hydrological regime*: Determined by the size of the feature, available habitat types and frequency of flood events.	1	4
Sensitivity to water quality changes*: Determined by the size of the feature, available habitat types and frequency of flood events	2	4
Energy dissipation and particulate/element removal: Roughness coefficient/Storage capacity and size.	2	4
Modifying Determinants		
Protected status: Ramsar Site, National Park, Wilderness area and Nature Reserve.	0	4
Ecological integrity: Degree of change of the flood regime, water quality and habitat from reference conditions.	1	4
TOTAL	9	
MEDIAN	**1**	
OVERALL EIS	**Marginal/low**	

Score guideline Very high = 4; High = 3, Moderate = 2; Marginal/Low = 1; None = 0
Confidence rating Very high confidence = 4; High confidence = 3; Moderate confidence = 2; Marginal/low confidence = 1
* a rating of zero is not appropriate in this context.

The overall EIS for the 'landfill' non-perennial drainage line and its riparian zone was determined to be **Marginal/low**. This is due to all the primary and modifying determinants being scored low, with the only exception being the primary determinants of sensitivity to water quality changes and energy dissipation and particulate/element removal which scored moderate. The former can be attributed to the relatively low nutrient levels in the region's watercourses in their reference condition and the latter which can be attributed to the roughness coefficient and remaining riparian vegetation.

1.16.2 Recommended Ecological Category

The PES has been determined to be a "D" ecological category and therefore the EIS components need to be evaluated to determine if any of the aspects of importance and sensitivity are high or very high. Given that the EIS category was determined to be **Marginal/low,** which means that the 'landfill' drainage line is not ecologically important and sensitive at any scale, and none of the EIS components scored above moderate, it is not considered necessary to increase the PES. It is also not possible to increase the PES of the watercourse above a Category D without effective rehabilitation of the landfill. The Recommended Ecological Category for the remaining non-perennial drainage lines is therefore a Category D.

1.17 Ecological Assessment of the Sand River

Table 18 presents the Impact Scores for a both instream and riparian zone health criteria for the portion of the Sand River that lies within the road reserve of the R310 and is the location of the proposed sewerage pipeline crossing.

Table 18: Results of the Intermediate Habitat Integrity Assessment for the Sand River.

	Impact Score, Post-development	Weight	IHI Score, Post-development
Instream criteria			
Water abstraction	0	14	0
Flow modification	10	13	5,2
Bed modification	25	13	13
Channel modification	25	13	13
Water quality	8	14	4,48
Inundation	0	10	0
Exotic macrophytes	5	9	1,8
Exotic fauna	0	8	0
Solid waste disposal	5	6	1,2
Provisional Instream Habitat Integrity Score			61,32
Riparian zone criteria			
Indigenous vegetation removal	25	13	13
Exotic vegetation encroachment	10	12	4,8
Bank erosion	15	14	8,4
Channel modification	25	12	12
Water abstraction	0	13	0
Inundation	0	11	0
Flow modification	8	12	3,84
Water quality	8	13	4,16
Provisional Riparian Zone Habitat Integrity Score			53,8
Overall Habitat Integrity			**57,56**
PES Score			**"D"**

The applicable portion of the Sand River has been determined to have a PES of Category D ("Highly Modified") which means that a large loss of natural habitat, biota and basic ecosystem functions has occurred. The river bed and channel has been totally modified as a result of the straightening and channelisation of the river from the culvert beneath the R310 up until the railway bridge and both accordingly received the highest possible score for the degree of modification. These complete modifications are by far the most significant causes of habitat degradation of both the instream and riparian components. Secondarily, bank erosion is also having a significant impact on the riparian component which is currently exacerbated by the lack of riparian vegetation removed as a result of recent earthmoving activities which resulted in the channelisation of the river. The remaining criteria received relatively low scores either because of lack of evidence during the site visit which focussed only on the portion of the Sand River located within the southern road reserve of the R310. There is evidence of upstream impoundments and water quality impairment is likely given catchment land uses and the recent construction activities which would have exacerbated sedimentation and possibly resulted in the discharge of cementitious materials. While exotic vegetation encroachment in the riparian zone was partial it is likely that in time this would increase greatly as the opportunity for alien invasive encroachment is high given the recent complete removal of vegetation riparian and instream vegetation as a result of the recent earthworks so this score would increase dramatically over the coming months as the seed banks germinate.

1.17.1 Ecological Importance and Sensitivity

Table 19 presents the results of the EIS Assessment of the Sand River.

Table 19: Results of Ecological Importance and Sensitivity (EIS) Assessment for the Sand River.

ECOLOGICAL IMPORTANCE AND SENSITIVITY	Score (0-4)	Confidence (1-5)
Primary Determinants		
Presence of rare and endangered species:	0	3
Populations of unique species:	0	3
Species/taxon Richness	1	4
Diversity of habitat types and features	0	4
Migration/breeding/feeding site for riverine species: Importance in terms of the link it provides for biological functioning	1	4
Sensitivity to changes in the natural hydrological regime*: Determined by the size of the feature, available habitat types and frequency of flood events.	2	4
Sensitivity to water quality changes*: Determined by the size of the feature, available habitat types and frequency of flood events	2	4
Energy dissipation and particulate/element removal: Roughness coefficient/Storage capacity and size.	0	4
Modifying Determinants		
Protected status: Ramsar Site, National Park, Wilderness area and Nature Reserve.	2	4
Ecological integrity: Degree of change of the flood regime, water quality and habitat from reference conditions.	1	4
TOTAL	8	
MEDIAN	1	
OVERALL EIS	**Marginal/low**	

Score guideline Very high = 4; High = 3, Moderate = 2; Marginal/Low = 1; None = 0
Confidence rating Very high confidence = 4; High confidence = 3; Moderate confidence = 2; Marginal/low confidence = 1
* a rating of zero is not appropriate in this context.

The overall EIS for the Sand River and its associated riparian zones was determined to be **Marginal/low**. While several determinants scored 0, the drainage line discharges into the Jonkershoek River a short distance downstream of the proposed crossing site, parts of which have been identified as aquatic CBAs. As such despite the drainage line currently presenting no aquatic or riparian habitat it still has importance from a biodiversity conservation perspective.

1.17.2 Recommended Ecological Category

The PES has been determined to be a "D" ecological category and therefore the EIS components need to be evaluated to determine if any of the aspects of importance and sensitivity are high or very high. For the Sand River none of the aspects of importance and sensitivity are high or very high. Also, given that the EIS category was determined to be **Marginal/low,** which means that the drainage line is not ecologically important and sensitive at any scale, it is therefore not considered necessary to increase the PES. The REC for the portion of the Sand River is therefore a Category "D". It must be recognised however that the instream and riparian communities will become established over the next year or so and accordingly the PES would probably improve to a Category "C".

Assessment of Impacts

1.18 Activity Description & Impact Identification

1.18.1 Description of the Proposed Development

The proposed long-term phased development on Portion 28 of Farm 468 Stellenbosch entails rezoning of the property to a subdivisional area that provides for mixed uses, including, but not limited to:

- multi-unit housing zone for medium and high-density residential units, inclusive of a retirement

village, blocks of flats, group housing, townhouses, inclusionary housing, private roads, and renewable energy structures;
- private open space zone for conservation of the natural features, access and circulation, and open spaces;
- transport facilities zone for transport purposes (goods and passengers);
- public roads and parking zone for public roads and streets;
- local business zone for the establishment of a small retail outlet, restaurant, medical consulting rooms, and offices to support an integrated self-sustaining community;
- community zone for the establishment of a place of assembly, place of worship, day care facilities, place of education, indoor and other sporting, and related facilities amongst others to complement the existing facilities and functions of the Sustainability Institute and Lynedoch Village; and
- utility services zone for the accommodation of private infrastructure and utility services as required for the proposed development.

Services Infrastructure:
- Potable and fire water: It is proposed that bulk services are constructed in order to supply the development with both domestic and fire water. The Skilpadvlei (also referred to as the Polkadraai Reservoir) and Faure reservoirs have sufficient spare capacity to accommodate the development. A 160mm connection will be made from the Skilpadvlei Reservoir and a 200mm connection from the Faure Reservoir. It is the new proposed 160mm pipeline connection from the Skilpadvlei Reservoir to the site that crosses two of the three affected drainage lines under assessment in this detailed ecological assessment.
- Sewerage: The GLS capacity report confirmed that there is sufficient capacity available at the Blaauwklippen pump station, however a new sewerage pipeline of 160mm diameter is required in order to convey sewerage to the Blaauwklippen pump station. It is this new sewerage pipeline that would cross the Sand River within the Road Reserve of the R310 near Vlottenberg which is being assessed in this detailed freshwater ecological assessment. The internal network will consist of 160mm Class 34 uPVC pipes connected to a new 12 l/s pump station with a 200mm Class 34 uPVC collector pipe.

The proposed layout of the development is shown in Figure 24.

1.18.2 Alternatives under Assessment

No alternatives are being assessed other than the ‘No-Go’ alternative (see Section 4.3).

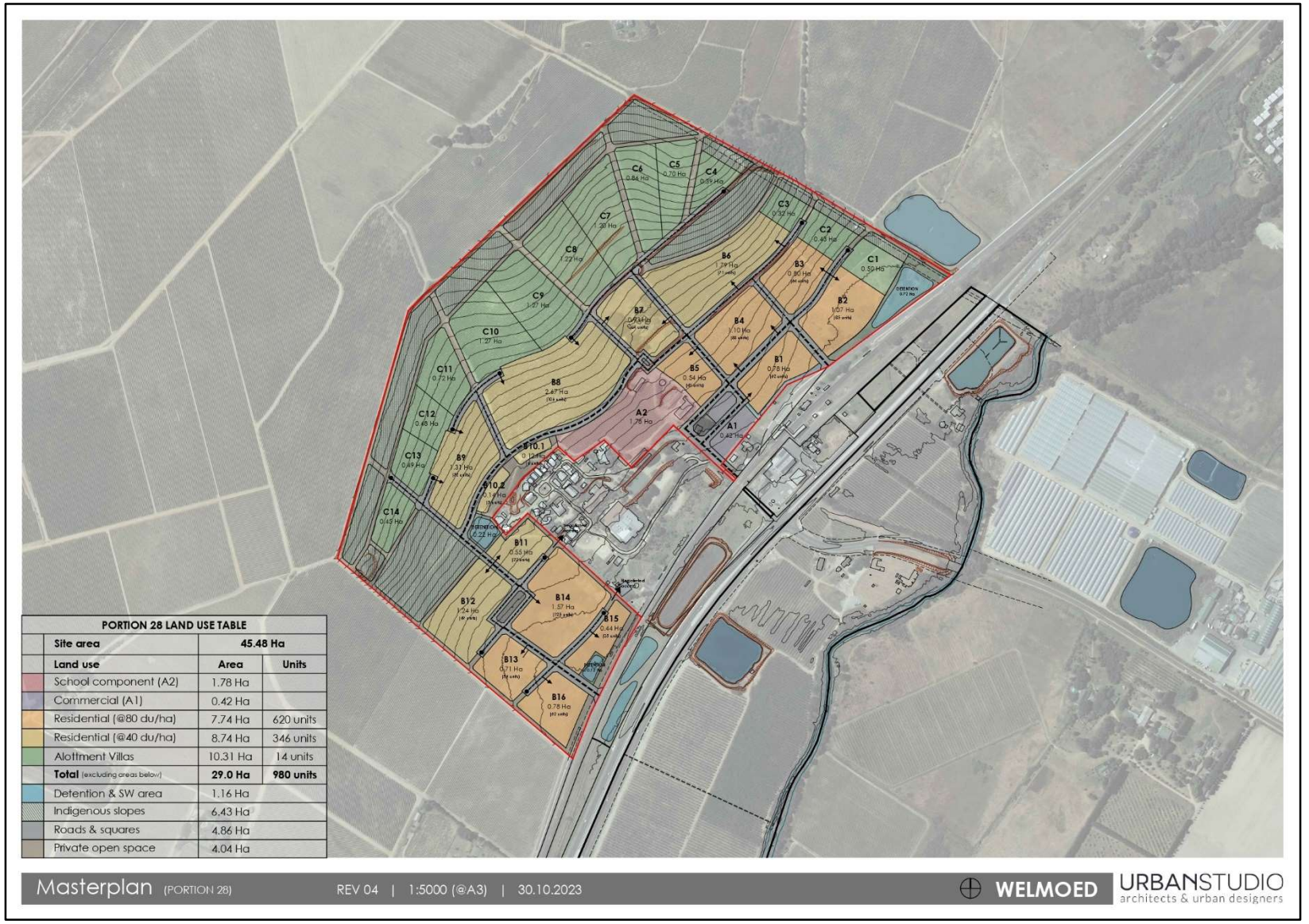

Figure 24: Proposed layout of the proposed residential development.

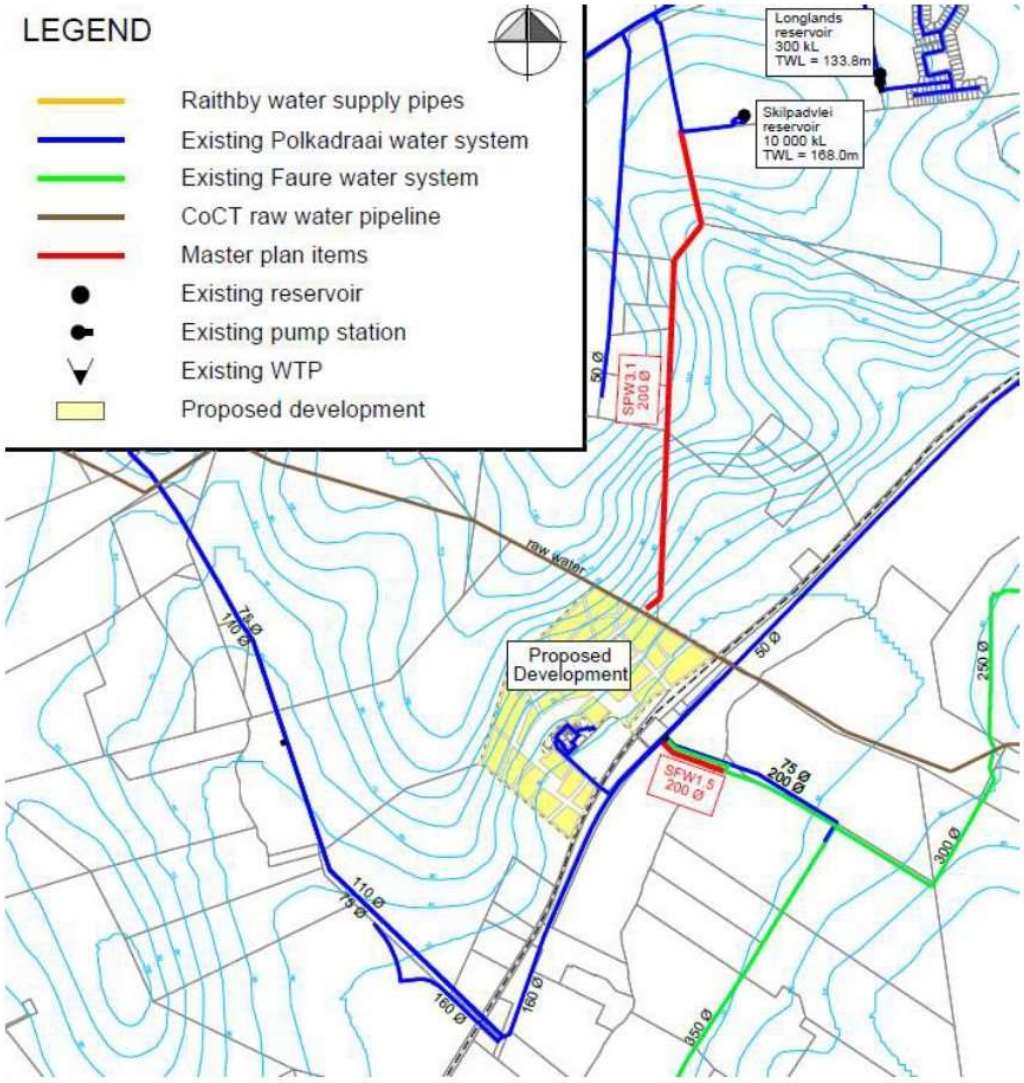

Figure 2: Existing water reticulation services

Figure 25: Existing and proposed potable water supply (Courtesy of UDS Africa, 2023). The red line indicates the proposed new water supply pipeline.

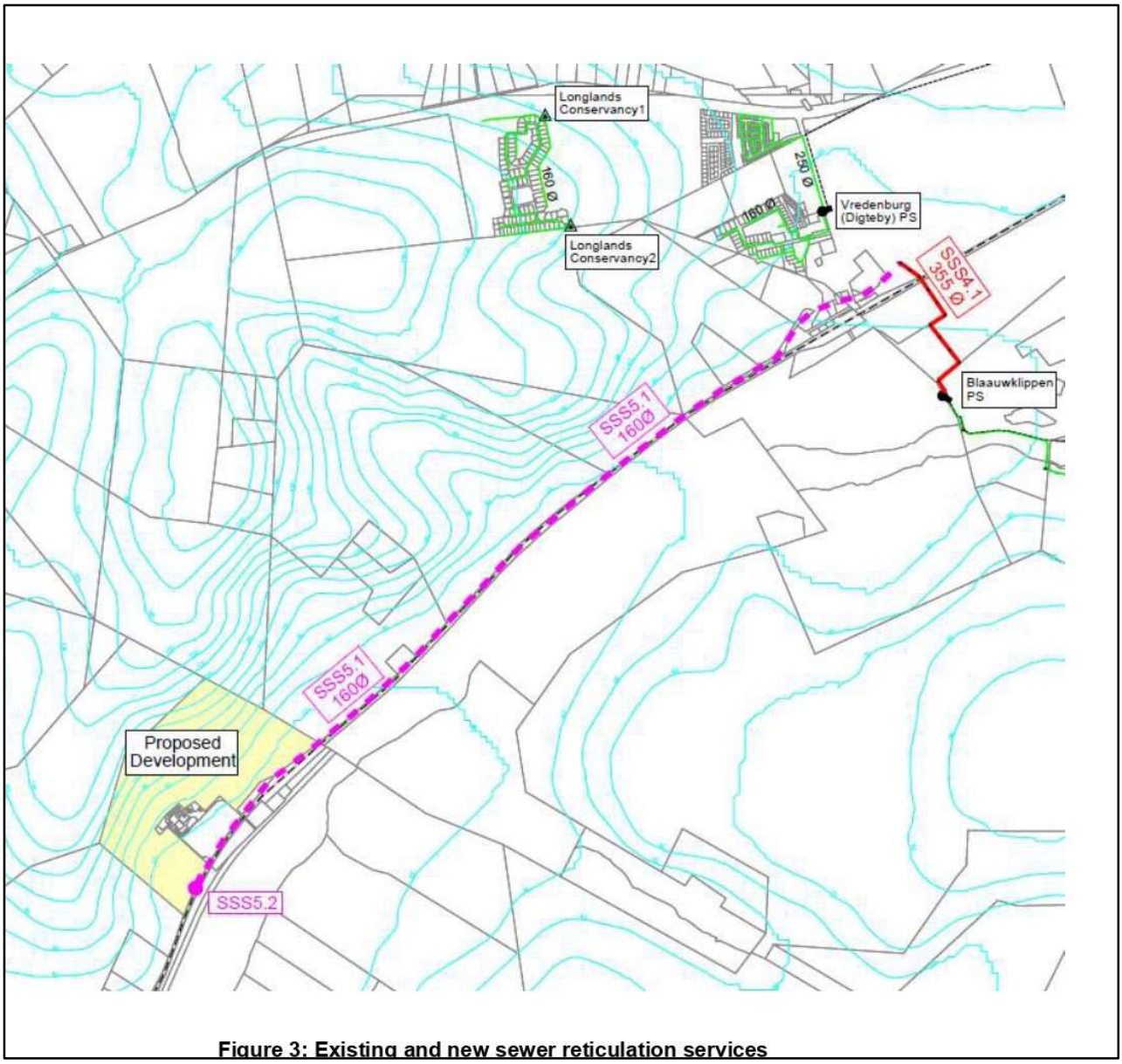

Figure 3: Existing and new sewer reticulation services

Figure 26: Existing and proposed sewerage reticulation (Courtesy of UDS Africa, 2023). The purple line indicates the alignment of the proposed sewerage pipeline.

1.18.3 Identification of potential freshwater ecological impacts associated with the proposed development

Based on the project description provided in Sections 4.1.1 and 4.1.2, the following potentially significant, direct freshwater ecological impacts have been identified per phase of the proposed installation of external services *viz-a-viz* the water supply and sewerage pipelines:

Planning, design and development/construction phase

- **Alteration of flow regime**: Reduced catchment roughness resulting from the clearing of vegetation causes an increase in run-off and an increase in flood peaks in receiving watercourses. In this case vegetation clearing would only cause an alteration of the flow regime in the unchannelled valley bottom wetland associated with the 'clean' watercourse as the other two crossing points are currently devoid of vegetation (i.e. no vegetation clearance will take place);
- **Increased erosion and sedimentation**: The exposure of soils to erosion associated with site

clearing, excavations and/or infilling would increase the erosive potential and, if coupled with rainfall, would result in sediment being deposited into the receiving watercourses. Trench excavations across flowing stream channels would cause unavoidable sedimentation as the flow would cause a sediment plume, the extent of which would be dependent on the extent of flow (greater the flow the greater the plume) and also the duration of excavations as following backfilling and compaction, the plume would eventually abate.;

- **Water quality impairment:** The possible release of contaminants such as cement and other building materials / chemicals into the receiving watercourses. In addition, potential accidental spills of chemicals and fuel may also result in contamination of the receiving watercourses; and
- **Biota loss:** The indiscriminate driving of vehicles and construction machinery through and near watercourses as well as the inappropriate placement of materials can lead to biota loss. Similarly, should raw chemicals enter the receiving watercourses then biota that are sensitive to water quality impacts may either move away or in extreme circumstances may suffer mortalities.

Operational phase

The operational phase is effectively limited to the operation of a potable water supply pipeline and a sewerage pipeline (with a pumpstation) and is likely to generate the following impacts on the receiving watercourses:

- **Alteration of natural flow regime**: Any persistent leaks from any of the pipelines would increase water inputs into the wetland. This could have significant secondary impacts associated with the transformation of non-perennial systems to perennial systems with associated changes in biota assemblages; and
- **Water quality impairment:** Any leaks from the sewerage pipeline near the proposed crossing point on the Sand River would result in water quality impacts as a result of raw sewage discharges into the Sand River. This could have significant secondary impacts associated with eutrophication including changes in biota assemblages with species adapted to higher nutrient loads proliferating near the point of discharge.

1.19 Potential Direct Impacts associated with the proposed installation of external services

1.19.1 Operational Phase

Impact 1 — Alteration of Flow Regime

Vegetation cover performs flood attenuation functions by slowing down run-off and promoting infiltration. This has the effect of reducing flood peaks and flows into and within the receiving watercourses. The installation of the external services would only involve the clearing of vegetation at the ‘clean’ watercourse crossing point and also within a relatively narrow construction corridor of a few metres. While this is still likely to result in an increase in runoff from the cleared areas and associated increase in storm peak flow velocities due to the reduced surface roughness, the intensity of this impact is LOW due to the narrow construction corridor and the relatively low catchment roughness of the wider catchment of the ‘clean’ which is dominated by vineyards. Ordinarily flow regime impacts extend beyond the site (i.e. would be rated to have a REGIONAL extent) but in this case it is the specialist’s opinion that due to the LOW intensity the potential impact would not extend off-site.

The impact significance for the alteration of the natural flow regime, primarily as a result of the LOW intensity rating and LOCAL extent (due to it potentially impacting an off-site wetland) is rated as LOW (-ve) unmitigated. The alteration of flow caused by site clearing can be largely avoided if site clearing is undertaken during the summer, low rainfall season. Alternatively partial mitigation is possible through ECO intervention and timeous revegetation of cleared areas in close proximity to the affected watercourses (in this case only the ‘clean’ watercourse.

Table 20: Impact significance rating for the alteration of the natural flow regime (development phase).

CRITERIA	WITHOUT MITIGATION	WITH MITIGATION
Extent of impact:	LOCAL	LOCAL
Duration of impact	MEDIUM TERM	SHORT TERM
Consequence of impact or risk:	NEGATIVE	NEGATIVE
Intensity	LOW	LOW
Probability of occurrence:	PROBABLE	IMPROBABLE
Indirect impacts:	N/A	N/A
Cumulative impacts	HIGH	HIGH
Significance rating of impact	LOW (-ve)	VERY LOW (-ve)
Degree to which the impact may cause irreplaceable loss of resources:	LOW	
Degree to which the impact can be reversed:	IRREVERSIBLE	
Degree to which the impact can be avoided:	HIGH	
Degree to which the impact can be managed:	HIGH	
Degree to which the impact can be mitigated:	HIGH	
Residual impacts:	VERY LOW (-ve)	

Essential mitigation measures:

- Avoid the impact as far as is practically possible by undertaking the watercourse crossings (vegetation clearing and trench excavations) during the dry summer season, where possible;
- If installation of the external services cannot be undertaken prior to the onset of the winter rainy season then the Environmental Control Officer (ECO) must advise on measures to ensure that run-off from cleared areas is contained and encouraged to infiltrate rather than discharge directly into the downstream watercourses;
- Timeously revegetate areas cleared by construction activities near the watercourse crossing points with suitable indigenous plants.

Impact 2 – Increased erosion and sedimentation

The exposure of soils resulting from site clearing and/or excavations and/or infilling within and immediately upslope of watercourses would increase the rates of erosion and sedimentation (the deposition of sediment into the watercourses). During vegetation clearing and/or excavations, soils would be destabilised thereby becoming more prone to erosion. This would not apply to the 'landfill' watercourse in the summer, dry season as there is no run-off or flow in the watercourse at this time as was evident during the site visit. Also, both the bed and banks of the 'landfill' watercourse and the Sand River at their respective crossing are currently devoid of vegetation and therefore already exposed to erosion so the added impact of site clearing in preparation for the trench excavations across the channels are negligible at these two sites

Erosion and sedimentation are expected to be HIGHLY PROBABLE during the rainy season when the trench excavations across the channels would cause sediment plumes which would be carried downstream and when any soils immediately upslope of the watercourses are exposed and eroded by rainfall with the result that sediment would deposited into the downstream receiving watercourses. Ameliorating the significance of the potential impact is the fact that the topography at the crossing point of the 'clean' watercourse and surrounds is slight to moderately sloping (between 3 – 10%) and the Sand River is slightly sloping which moderates run-off velocity and therefore moderated the erosive potential. Conversely, the moderate to high run-off intensity and erodibility of the areas soils exacerbates the significance of the potential impact. Given that sediment would be carried downstream and off-site should the site preparation and excavations take place in the winter rainfall period, the impact unmitigated is rated to have a REGIONAL extent rating with the intensity rated to be MEDIUM given the current levels of spoil disturbance at two of the crossing points, namely the 'landfill' watercourse and the Sand River crossing points. Overall, the impact significance of erosion and sedimentation was rated to be MEDIUM (-ve) without mitigation and LOW (-ve) if the proposed

mitigation measures, which include stormwater, erosion and sediment control measures, are implemented.

Table 21: Impact significance rating for erosion and sedimentation (development phase).

CRITERIA	WITHOUT MITIGATION	WITH MITIGATION
Extent of impact:	REGIONAL	LOCAL
Duration of impact	MEDIUM TERM	SHORT TERM
Consequence of impact or risk:	NEGATIVE	NEGATIVE
Intensity	MEDIUM	MEDIUM
Probability of occurrence:	HIGHLY PROBABLE	PROBABLE
Indirect impacts:	N/A	N/A
Cumulative impacts	HIGH	HIGH
Significance rating of impact	MEDIUM (-ve)	LOW (-ve)
Degree to which the impact may cause irreplaceable loss of resources:	LOW	
Degree to which the impact can be reversed:	REVERSIBLE (sediment can be removed from the system and eroded areas stabilised)	
Degree to which the impact can be avoided:	LOW (trench excavations across flowing watercourses unavoidably causes sediment plumes)	
Degree to which the impact can be managed:	MEDIUM	
Degree to which the impact can be mitigated:	MEDIUM	
Residual impacts:	LOW (-ve)	

Essential mitigation measures:

- Avoid the impact as far as is practically possible by undertaking the watercourse crossings (vegetation clearing and trench excavations) during the dry summer season, where possible;
- If the installation of the external services cannot be undertaken prior to the onset of the winter rainy season then the ECO must advise on measures to ensure that sediment plumes from the trench excavation are contained and run-off from cleared areas upslope of the watercourses is contained and encouraged to infiltrate rather than discharge directly into the receiving watercourses;
- Formulate and implement a Development/Construction phase EMP which includes the following specifications:
    - No stockpiles may be located within 30m of the crossing point;
    - The ECO shall designate the site for stockpiling (note this should preferably take place at the Construction Camp but an alternative site can be identified closer to the crossing site, but no closer than 30m, in consultation with the ECO);
    - Protect soil stockpiles, if required, from erosion using a tarp or erosion blankets;
    - Implement erosion control measures in order to prevent erosion and sedimentation of the receiving watercourses as required by the ECO. For example. strategically place straw bales or sediment fences/traps, to divert stormwater away from areas susceptible to erosion etc.);
    - Any sediment contaminated runoff should be contained and allowed to settle before being discharged. The settled-out sediment collected in this manner should be cleared manually as needed and removed from site;
    - The ECO shall check erosion control measures weekly to ensure these are still intact (and cleared of sediment in accordance with the recommendations above) as needed;
    - The ECO shall check the site for erosion damage and sedimentation after every heavy rainfall event. Should erosion or sedimentation be noted, immediate corrective measures must be undertaken; and
    - Ensure that any area within 50m of the crossing point that is damaged as a result of construction activities is suitably and timeously rehabilitated to the satisfaction of the ECO.
- Any areas that need to be cleared in close proximity to the crossing points because they contain listed alien invasive species or are cleared for any other purpose must be revegetated timeously with appropriate indigenous vegetation.

Impact 3 – Water quality impairment

There is a high probability that unmanaged the receiving watercourses would become contaminated as a result of the use of construction materials including cement, paints and solvents which would enter the downstream watercourses via run-off from the construction areas. In addition, the operation of vehicles and machinery might present unchecked and accidental leaks and spillages which in turn would also lead to contamination. Discharge of any wash-water into the surrounding environment would also contaminate run-off which in turn would enter and contaminate the receiving watercourses.

The impact is rated to have a REGIONAL extent due the strong possibility that any contaminants would be transported off-site. This probability is reduced somewhat due to the presence of impoundments in the receiving watercourses which would trap contaminants to some degree. This extent rating (REGIONAL) results in the impact significance rating of MEDIUM (-ve) without mitigation. With management and mitigation that would have the effect of containing the extent of the impact to within the proposed site, the impact significance would be reduced to VERY LOW (-ve).

Table 22: Impact significance rating for water quality impairment (development phase).

CRITERIA	WITHOUT MITIGATION	WITH MITIGATION
Extent of impact:	REGIONAL	LOCAL
Duration of impact	MEDIUM TERM	SHORT TERM
Consequence of impact or risk:	NEGATIVE	NEGATIVE
Intensity	MEDIUM	LOW
Probability of occurrence:	HIGHLY PROBABLE	PROBABLE
Indirect impacts:	N/A	N/A
Cumulative impacts	HIGH	HIGH
Significance rating of impact	MEDIUM (-ve)	VERY LOW (-ve)
Degree to which the impact may cause irreplaceable loss of resources:	LOW	
Degree to which the impact can be reversed:	IRREVERSIBLE	
Degree to which the impact can be avoided:	MEDIUM	
Degree to which the impact can be managed:	MEDIUM	
Degree to which the impact can be mitigated:	MEDIUM	
Residual impacts:	VERY LOW (-ve)	

Essential mitigation measures:

- Formulate and implement an EMP for the development/construction phase which includes the following specifications:
    - Where cement is mixed in a cement mixer ensure that the cement mixer operates at all times within a bunded area with an impermeable base;
    - Where cement is mixed by hand, ensure that the cement is mixed at all times in impermeable containers or in a bunded area with an impermeable base;
    - All wet and dry cement deposits outside the contained areas are to be cleaned at the end of each day and disposed of off-site as rubble;
    - Store fuel, chemicals and other hazardous substances in suitable secure weather-proof containers with impermeable and bunded floors to limit pilferage, spillage into the environment, flooding or storm damage and to be located at least 100m from any wetland;
    - Inspect all storage facilities and vehicles daily for the early detection of deterioration or leaks;
    - Clean up any spillages (e.g. concrete, oil, fuel), immediately. Remove contaminated soil and dispose of it appropriately;
    - Dispose of used oils, wash water from cement and other pollutants at an appropriate licensed landfill site. Disposal of any of these waste materials into any watercourse is strictly prohibited;

- Dispose of concrete and cement-related mortars in an environmental sensitive manner (as this can be toxic to aquatic life). Washout may not be discharged into any watercourse;
- Provide an adequate number of portable toilets where work is being undertaken. These toilets must be located at least 30m from the watercourse and must be serviced regularly in order to prevent leakage/spillage;
- All contaminated soil removed from the site by excavator or hand is to be immediately placed in a skip (i.e. no stockpiling of contaminated soil on-site);
- All skips containing waste shall be immediately transported to landfill for disposal when the skip becomes full;
- Any skips containing solid waste at the end of the day shall be covered to prevent wind from blowing the waste away; and
- Receipts for the safe disposal of solid waste shall be kept on record by the Contractor.

Impact 4 – Loss of Biota

Construction activities within and/or in close proximity to watercourses inevitably cause biota loss, primarily biota mortality as a result of being crushed by vehicles or through the indiscriminate placement of machinery and/or construction materials. In the event that spilled fuels and chemicals, oil leaks from construction machinery and cement from batching operations contaminate the receiving watercourses then biota loss may also take place or in the very least biota sensitive to water quality changes would be displaced. This is primarily applicable to the 'clean' watercourse as the other two watercourses are largely devoid of any instream or riparian habitat at their respective crossing points. While the affected watercourses are not expected to provide habitat for any threatened species, the region's watercourses are known to be low in nutrients and therefore the biota inhabiting these systems are regarded to be sensitive to changes in water quality.

Given the small scale of the construction project it is PROBABLE that only localised and very limited (i.e. LOW impact intensity) biota loss may take place. Accordingly, the impact is rated to be of LOW (-ve) significance without mitigation. The impact can be partially mitigated by restricting construction vehicles and machinery to designated areas and through ensuring that no construction materials are stored within 20m of the receiving watercourses.

Results

Table 23: Impact significance rating for loss of biota (development phase).

CRITERIA	WITHOUT MITIGATION	WITH MITIGATION
Extent of impact:	LOCAL	LOCAL
Duration of impact	SHORT TERM	SHORT TERM
Consequence of impact or risk:	NEGATIVE	NEGATIVE
Intensity	LOW	LOW
Probability of occurrence:	HIGHLY PROBABLE	PROBABLE
Indirect impacts:	N/A	N/A
Cumulative impacts	HIGH	HIGH
Significance rating of impact	LOW (-ve)	VERY LOW (-ve)
Degree to which the impact may cause irreplaceable loss of resources:	LOW	
Degree to which the impact can be reversed:	IRREVERSIBLE	
Degree to which the impact can be avoided:	MEDIUM	
Degree to which the impact can be managed:	MEDIUM	
Degree to which the impact can be mitigated:	MEDIUM	
Residual impacts:	VERY LOW (-ve)	

Essential mitigation measures:

- Clearly demarcate the edge of the 'clean' watercourse (*viz-a-viz* the unchannelled valley bottom wetland) for a distance of 20m either side of the crossing point using weather-proof markers for the full duration of the construction phase;
- Any part of the wetland upstream and downstream of the marked-off portion of the wetland must be off-limits to construction workers, vehicles and machinery unless authorised by the ECO); and
- Construction material stockpiles should be kept at least 20m from the wetland edge.

Table 24: Summary of development phase impacts.

Alternatives	Extent	Duration	Intensity	Probability of impact occurring	Significance
Alteration of natural flow regime					
Without mitigation	LOCAL	MEDIUM TERM	LOW	HIGHLY PROB.	LOW (-ve)
With mitigation	LOCAL	SHORT TERM	LOW	IMPROBABLE	VERY LOW (-ve)
Increased erosion and sedimentation					
Without mitigation	REGIONAL	MEDIUM TERM	MEDIUM	HIGHLY PROB.	MEDIUM (-VE)
With mitigation	LOCAL	SHORT TERM	MEDIUM	PROBABLE	LOW (-ve)
Water quality impairment					
Without mitigation	REGIONAL	MEDIUM TERM	MEDIUM	HIGHLY PROB.	MEDIUM (-ve)
With mitigation	LOCAL	SHORT TERM	LOW	PROBABLE	VERY LOW (-ve)
Biota loss					
Without mitigation	LOCAL	SHORT TERM	LOW	HIGHLY PROB.	LOW (-ve)
With mitigation	LOCAL	SHORT TERM	LOW	PROBABLE	VERY LOW (-ve)

1.19.2 Operational Phase

Impact 1 – Alteration of flow regime

Any persistent leaks from any of the pipelines (potable water supply or sewerage) would increase water inputs into the wetland. This could have significant secondary impacts associated with the transformation of non-perennial systems to perennial systems with associated changes in biota assemblages. The intensity of the impact is rated as LOW due to the likelihood that volumes leaked would not be significant and limited to trickle flow. The extent would be REGIONAL as flow in the affected watercourses would be affected downstream and off-site. The presence of impoundments in the 'clean' and 'landfill' watercourses would, on the other hand, contain the extent of the impact to some degree. The impact significance for the alteration of flow regime is, therefore, rated as MEDIUM (negative) without mitigation. Mitigation would be in the form of ensuring that the proposed pipelines do not leak. This can be achieved through the insertion of a Kevlar sleave for the portion of the pipeline that crosses the watercourse and through routine inspection and maintenance. This would result in the impact significance being reduced to VERY LOW (negative).

Table 25: Impact significance rating for alteration of flow regime (operational phase).

CRITERIA	WITHOUT MITIGATION	WITH MITIGATION
Extent of impact:	REGIONAL	REGIONAL
Duration of impact	LONG TERM	SHORT TERM
Consequence of impact or risk:	NEGATIVE	NEGATIVE
Intensity	LOW	LOW
Probability of occurrence:	PROBABLE	IMPROBABLE
Indirect impacts:	N/A	N/A
Cumulative impacts	HIGH	HIGH
Significance rating of impact	MEDIUM (-ve)	VERY LOW (-ve)
Degree to which the impact may cause irreplaceable loss of resources:	LOW	
Degree to which the impact can be reversed:	REVERSIBLE	
Degree to which the impact can be avoided:	LOW	
Degree to which the impact can be managed:	MEDIUM	
Degree to which the impact can be mitigated:	MEDIUM	
Residual impacts:	VERY LOW (-ve)	

Essential mitigation measures:

- Ensure that all pipelines within the 1:50 year floodlines of the watercourses are lined with an internal Kevlar or similar sleave;
- Inspect the water supply and sewerage pipelines within the 1:50 year floodlines of the affected watercourses annually and repair / address leaks timeously.

Impact 2 – Water Quality Impairment

Give that a sewerage pipeline is proposed to cross the Sand River within the road reserve of the R310 (Baden Powell Drive) there is a risk that raw effluent would be discharged into the Sand River in the event that the pipeline is damaged and/or due to lack of maintenance, leaks. Any raw sewerage leaked into the watercourse would be carried downstream from the crossing point and therefore the potential impact would be REGIONAL in extent. The overall intensity is however rated to be LOW, primarily due to the likelihood that the volumes leaked would be low. The overall likelihood would be PROBABLE (taking into account the HIGH PROBABILITY that if a leak occurred contamination of the watercourse would take place and the IMPROBABILITY of the pipeline being damaged and leaking in the first place). Accordingly, the potential impact of water quality impairment during the operational phase would have a significance rating of MEDIUM (-ve) unmitigated.

In mitigation of the operational phase impact of water quality impairment is the requirement for routine monitoring the sewerage infrastructure for early leak detection and repair. A further measure would be to ensure that the pipeline is lined with Kevlar or similar material to maximise its strength. With mitigation, the impact significance rating would be reduced to VERY LOW (-ve).

Table 26: Impact significance rating for water quality impairment (operational phase) for the preferred alternative.

CRITERIA	WITHOUT MITIGATION	WITH MITIGATION
Extent of impact:	REGIONAL	REGIONAL
Duration of impact	LONG TERM	SHORT TERM
Consequence of impact or risk:	NEGATIVE	NEGATIVE
Intensity	LOW	LOW
Probability of occurrence:	PROBABLE	IMPROBABLE
Indirect impacts:	N/A	N/A
Cumulative impacts	HIGH	HIGH
Significance rating of impact	MEDIUM (-ve)	VERY LOW (-ve)
Degree to which the impact may cause irreplaceable loss of resources:	LOW	
Degree to which the impact can be reversed:	IRREVERSIBLE (once contamination has occurred the effects of contamination cannot be reversed)	
Degree to which the impact can be avoided:	LOW	
Degree to which the impact can be managed:	MEDIUM	
Degree to which the impact can be mitigated:	MEDIUM	
Residual impacts:	VERY LOW (-ve)	

Essential mitigation measures:

- Ensure that all new sewerage pipelines within the 1:50 year floodline of the Sand River are lined with an internal Kevlar or similar sleave;
- Inspect all sewerage infrastructure within the 1:50 year floodline annually and repair / address leaks timeously.

Table 27: Summary of impact assessment results for the operational phase.

Alternatives	Extent	Duration	Intensity	Probability of impact occurring	Significance
Alteration of natural flow regime					
Without mitigation	REGIONAL	LONG TERM	LOW	PROBABLE	MEDIUM (-ve)
With mitigation	REGIONAL	SHORT TERM	LOW	IMPROBABLE	VERY LOW (-ve)
Water quality impairment					
Without mitigation	REGIONAL	LONG TERM	LOW	PROBABLE	MEDIUM (-ve)
With mitigation	REGIONAL	SHORT TERM	LOW	IMPROBABLE	VERY LOW (-ve)

1.20 'No-Go' Scenario

The 'No-Go' alternative implies that no development would take place and therefore there would be no requirement to install services including pipelines crossing watercourses. Accordingly, one would expect there to be no freshwater ecological impacts associated with the No-Go alternative. However, the current trends of habitat degradation, primarily erosion and sedimentation due to the agricultural land use which has reduced catchment roughness and alien vegetation encroachment, would continue into the foreseeable future. While it is legally obligatory for the landowners to eradicate certain listed alien invasive species (e.g. *Acacia saligna, Acacia melanoxylon* and *Acacia longifolia,* all prevalent in the area), there is no evidence of this taking place. The use of one of the watercourses as a landfill is also likely to continue whereas should the proposed development be approved then an opportunity exists to remove the remaining waste material and facilitate rehabilitation of the drainage line.

Accordingly the long-term prognosis for the three affected watercourse is that they would eventually deteriorate to reach a lower PES Category within the foreseeable future. Given that the unchannelled valley bottom wetland associated with the 'clean' watercourse is not recognised as being of

conservation significance (i.e. no aquatic or terrestrial CBAs or ESAs are associated with the wetland) and that no wetlands of conservation importance are situated downstream of the wetland, this deterioration in the condition of the wetland has limited regional significance for this particular watercourse. A similar scenario would apply to the 'landfill' watercourse. However, the Sand River discharges into the Jonkershoek River a short distance downstream from the proposed crossing point and parts of this river near to the proposed crossing point have been identified as comprising Aquatic CBAs. The Sand River therefore needs to be managed to ensure that it continues to provide the ecosystem services necessary to sustain the downstream Aquatic CBAs.

Overall, taking the above into consideration the "No-Go" alternative is rated to be associated with a LOW (-ve) impact significance rating (see Table 28).

Table 28: Impact significance rating for all impacts associated with the No-Go alternative.

CRITERIA	WITHOUT MITIGATION	WITH MITIGATION
Extent of impact:	LOCAL	N/A to the No-Go alternative
Duration of impact	LONG TERM	
Consequence of impact or risk:	NEGATIVE	
Intensity	LOW	
Probability of occurrence:	PROBABLE	
Indirect impacts:	N/A	
Cumulative impacts	HIGH	
Significance rating of impact	LOW (-ve)	
Degree to which the impact may cause irreplaceable loss of resources:	LOW	
Degree to which the impact can be reversed:	REVERSIBLE (habitat degradation can be reversed through rehabilitation)	
Degree to which the impact can be avoided:	LOW (continued environmental degradation is an inevitable trend for biodiversity in agricultural and peri-urban areas due primarily to significant edge effects)	
Degree to which the impact can be managed:	MEDIUM (while landowners could undertake measures to manage ongoing degradation this has not occurred, presumably due to a lack of resources)	
Degree to which the impact can be mitigated:	MEDIUM (while landowners could undertake measures to mitigate ongoing degradation this has not occurred, presumably due to a lack of resources)	
Residual impacts:	LOW (-ve)	

1.21 Indirect Impacts

No indirect impacts were identified or considered probable, provided the suggested mitigation measures of the direct impacts are implemented and adhered to.

1.22 Cumulative Impacts

Cumulative impacts result from the incremental impact of an activity on freshwater ecosystems within a greater catchment, ecoregion and vegetation group when added to the impacts of other past, present or reasonably foreseeable future activities.

Loss of wetland habitat in the Southwestern Coastal Belt Ecoregion as a result of urban development has been extensive and can be regarded as a highly significant cumulative impact. This is evident from the NFEPA (2011) which has assigned a Critically Endangered (CR) and Endangered (E) threat status' to the majority of wetland types in the Ecoregions various wetland vegetation types. Given that the proposed development would not entail any loss of wetland habitat, the proposed development would not contribute to this highly significant cumulative impact. Also, through implementing the recommended development/construction phase mitigation measures that aim to ensure that the flow regime, water quality impairment (chemical contamination and sediment loading) and biota loss is minimised, the proposed development would have a negligible cumulative effect.

2 Key Findings and Recommendations

2.1 Key Findings

The provision of services, in particular the supply of potable water and the external sewerage reticulation, for the proposed development of Welmoed Estate at Lynedoch in the Stellenbosch municipal area requires that watercourses are crossed. The EAP, Virdus Environmental, identified the following three crossing points:

1. 'Clean' watercourse crossing point (water supply pipeline);
2. 'Landfill' watercourse crossing point (water supply pipeline); and
3. Sand River crossing point within the R310 road reserve (sewerage pipeline).

EnviroSwift conducted a site investigation on 27 February 2024 to classify and delineate the watercourses. The result so the site investigations confirmed that the 'clean' watercourse comprised an unchannelled valley bottom wetland and the two remaining watercourses to be drainage lines driven by alluvial processes. The Sand River is possibly a perennial system despite being mapped on the NGI Rivers database as non-perennial and at the time of the site visit was in a severe state of disturbance as a result from extensive earthworks associated with the current upgrading of the R310 at Vlottenburg. The 'landfill' drainage line was confirmed to be non-perennial as zero flow was evident and the severe disturbance as result of it being used as a landfill was confirmed.

While the NFEPA (2011) does not identify any applicable wetland vegetation types for the crossing points, the surrounding terrestrial vegetation type, Swartland Granite Renosterveld, is listed as being Endangered, indicating the likelihood that the aquatic habitat associated with wetlands and rivers / drainage lines is also threatened and in need of protection. Consultation of the WCBSP (2017) confirmed that each of the affected watercourses are identified as Restorable ESAs and that small parts of the Jonkershoek River immediately downstream of its confluence with the Sand River and near to the proposed crossing point comprise Aquatic CBAs. What this means is that all three affected watercourses need to be managed so that they continue to provide ecosystem services to support the functioning of the Aquatic CBAs and accordingly their ecological status should not be compromised.

The application of the ecological assessment indices (WET-EcoServices, WET-Health/IHIA and EIS); resulted in the following for each of the affected watercourses (see Table 29).

Table 29: Results of the detailed ecological assessment of the three watercourses.

Watercourse	WET-Ecoservices	PES	EIS
Unchannelled Valley Bottom Wetland ('clean' watercourse)	Intermediate	Category "D" (Largely Modified)	Marginal/low
'Landfill' drainage line	N/A	Category "D" (Largely Modified)	Marginal/low
Sand River	N/A	Category "D" (Largely Modified)	Marginal/low

Given the nature of the proposed activity, which effectively entails vegetation clearing and trench excavations across the watercourses followed by backfilling and re-compaction, the development/construction phase impacts are limited to the alteration of flow regime, erosion and sedimentation and biota loss with erosion and sedimentation rated to be the only potential impact of MEDIUM (-ve) significance unmitigated with the remaining potential impacts to be LOW (-ve) unmitigated. This impact significance rating for erosion and sedimentation is largely attributed to the fact that excavations within and near watercourses inevitably results in sediment plumes and erosion due to the destabilisation of soils which can be transported downstream and off-site thereby resulting in a REGIONAL impact extent.

For the operational phase it is only the consequences of damaged and leaking pipelines that can cause potentially significant flow regime and water quality impacts, with the latter limited to the sewerage pipeline crossing of the Sand River only. The impact significance rating for these two operational phase

impacts without mitigation was MEDIUM (-ve) as a result of the REGIONAL extent of both impacts (i.e. they are predicted to extend off-site) and LONG TERM duration (due to the fact that without regular leak inspections any leaks would go undetected for a long period of time.

Practicable mitigation measures have been recommended to minimise and manage all the identified potential impacts to ensure that all impacts are reduced to either LOW or VERY LOW (-ve) significance ratings. The construction phase impacts could be partly avoided through ensuring that the stream crossings take place in the dry summer period and also through the appointment of an ECO to oversee the actions of the Contractor and ensure that the recommended mitigation measures (presumably incorporated into a Construction EMP) are implemented. During the operational phase the use of Kevlar sleeves and the requirement for routine pipeline inspection for early leak detection would similarly minimise the impacts to VERY LOW (-ve) significances.

2.2 Authorisation Opinion

The proposed installation of the external services is found to be associated with a number of potentially significant freshwater ecological impacts that unmitigated would result in the proposed development not being supported from a freshwater ecological perspective. However, given that a number of practicable mitigation measures can be enforced and that these would render most of the potential impacts to have a VERY LOW (-ve) impact significance with only one of the identified impacts (development/construction phase erosion and sedimentation) being rated to have a LOW (-ve) impact significance with mitigation, the proposed installation of the external services is supported. This is conditional on the recommended mitigation measures being implemented.

While not an essential mitigation measure and therefore not conditional upon the approval of the proposed development, the project provides an opportunity to rehabilitate the ‘landfill’ watercourse immediately upstream of the proposed crossing point where solid waste is still evident and earthworks have left area devoid of vegetation and exposed to erosion. What would be required would be removal of the remaining components of the waste body (this could be done by hand) and then the reshaping of the banks of the drainage line to approximate the natural terrain units followed be revegetation. A seed mix including *Cynodon dactylon* and other indigenous grasses as well as the planting of several *Olea capensis* seedlings would be sufficient for revegetation purposes.

Should no development take place, then there would be no impact to the freshwater ecosystems associated with the proposed development. Ongoing degradation of the ‘clean’ and ‘landfill’ watercourses would continue whereas the Sand River, post the upgrading of the R310, would improve as natural vegetation becomes established within the channel and on the banks thereby providing habitat as well as ecological services such as bank stabilisation, flood attenuation and nutrient assimilation. However, given that the proposed development presents an opportunity to rehabilitate the ‘landfill’ watercourse there would be a lost opportunity cost associated with the No-Go alternative.

2.3 Conclusion and Recommendations

The proposed installation of external services, in particular the proposed water supply pipeline from the Skilpadvlei reservoir to the proposed site of the urban development at Lynedoch and the proposed sewerage pipeline to the Blaauwklippen Pumpstation, will entail crossings at three points on three different watercourses. Given that two of the watercourses have been subjected to extensive earthworks recently, the sensitivity of these two freshwater systems to ecological impacts is reduced to the extent that most impacts are rated to be LOW (-ve) without mitigation. The third watercourse, referred to as the ‘clean’ watercourse, while having relatively intact vegetation and limited biophysical disturbance has been determined to have been subject to severe hydrological impacts associated with the presence of impoundments as well as significant geomorphological impacts. The sensitivity of this watercourse to the activities associated with the pipeline installation are also reflected in the LOW (-ve) impact ratings for most of the identified impacts. Accordingly, the timing of the project is appropriate as the disturbance caused by the proposed pipeline crossings is negligible compared to the recent and current disturbance witnessed at the ‘landfill’ watercourse and the Sand River.

Most of the identified impacts are mitigable and a number of practicable mitigation measures have been recommended as follows:

Essential mitigation measures to address alteration of flow regime during the development/construction phase:

- Avoid the impact as far as is practically possible by undertaking the watercourse crossings (vegetation clearing and trench excavations) during the dry summer season, where possible;
- If installation of the external services cannot be undertaken prior to the onset of the winter rainy season then the Environmental Control Officer (ECO) must advise on measures to ensure that run-off from cleared areas is contained and encouraged to infiltrate rather than discharge directly into the downstream watercourses;
- Timeously revegetate areas cleared by construction activities near the watercourse crossing points with suitable indigenous plants.

Essential mitigation measures to address the development/construction phase impact of erosion and sedimentation:

- Avoid the impact as far as is practically possible by undertaking the watercourse crossings (vegetation clearing and trench excavations) during the dry summer season, where possible;
- If the installation of the external services cannot be undertaken prior to the onset of the winter rainy season then the ECO must advise on measures to ensure that sediment plumes from the trench excavation are contained and run-off from cleared areas upslope of the watercourses is contained and encouraged to infiltrate rather than discharge directly into the receiving watercourses;
- Formulate and implement a Development/Construction phase EMP which includes the following specifications:
    - No stockpiles may be located within 30m of the crossing point;
    - The ECO shall designate the site for stockpiling (note this should preferably take place at the Construction Camp but an alternative site can be identified closer to the crossing site, but no closer than 30m, in consultation with the ECO);
    - Protect soil stockpiles, if required, from erosion using a tarp or erosion blankets;
    - Implement erosion control measures in order to prevent erosion and sedimentation of the receiving watercourses as required by the ECO. For example. strategically place straw bales or sediment fences/traps, to divert stormwater away from areas susceptible to erosion etc.);
    - Any sediment contaminated runoff should be contained and allowed to settle before being discharged. The settled-out sediment collected in this manner should be cleared manually as needed and removed from site;
    - The ECO shall check erosion control measures weekly to ensure these are still intact (and cleared of sediment in accordance with the recommendations above) as needed;
    - The ECO shall check the site for erosion damage and sedimentation after every heavy rainfall event. Should erosion or sedimentation be noted, immediate corrective measures must be undertaken; and
    - Ensure that any area within 50m of the crossing point that is damaged as a result of construction activities is suitably and timeously rehabilitated to the satisfaction of the ECO.
- Any areas that need to be cleared in close proximity to the crossing points because they contain listed alien invasive species or are cleared for any other purpose must be revegetated timeously with appropriate indigenous vegetation.

Essential mitigation measures to reduce water quality impairment associated with construction activities:

- Formulate and implement an EMP for the development/construction phase which includes the following specifications:
    - Where cement is mixed in a cement mixer ensure that the cement mixer operates at all times within a bunded area with an impermeable base;
    - Where cement is mixed by hand, ensure that the cement is mixed at all times in impermeable containers or in a bunded area with an impermeable base;
    - All wet and dry cement deposits outside the contained areas are to be cleaned at the end of each day and disposed of off-site as rubble;

- Store fuel, chemicals and other hazardous substances in suitable secure weather-proof containers with impermeable and bunded floors to limit pilferage, spillage into the environment, flooding or storm damage and to be located at least 100m from any wetland;
- Inspect all storage facilities and vehicles daily for the early detection of deterioration or leaks;
- Clean up any spillages (e.g. concrete, oil, fuel), immediately. Remove contaminated soil and dispose of it appropriately;
- Dispose of used oils, wash water from cement and other pollutants at an appropriate licensed landfill site. Disposal of any of these waste materials into any watercourse is strictly prohibited;
- Dispose of concrete and cement-related mortars in an environmental sensitive manner (as this can be toxic to aquatic life). Washout may not be discharged into any watercourse;
- Provide an adequate number of portable toilets where work is being undertaken. These toilets must be located at least 30m from the watercourse and must be serviced regularly in order to prevent leakage/spillage;
- All contaminated soil removed from the site by excavator or hand is to be immediately placed in a skip (i.e. no stockpiling of contaminated soil on-site);
- All skips containing waste shall be immediately transported to landfill for disposal when the skip becomes full;
- Any skips containing solid waste at the end of the day shall be covered to prevent wind from blowing the waste away; and
- Receipts for the safe disposal of solid waste shall be kept on record by the Contractor.

Essential mitigation measures to minimise biota loss associated with construction activities:

- Clearly demarcate the edge of the 'clean' watercourse (*viz-a-viz* the unchannelled valley bottom wetland) for a distance of 20m either side of the crossing point using weather-proof markers for the full duration of the construction phase;
- Any part of the wetland upstream and downstream of the marked-off portion of the wetland must be off-limits to construction workers, vehicles and machinery unless authorised by the ECO); and
- Construction material stockpiles should be kept at least 20m from the wetland edge.

Essential mitigation measures to address the alteration of flow regime during the operational phase:

- Ensure that all pipelines within the 1:50 year floodlines of the watercourses are lined with an internal Kevlar or similar sleave;
- Inspect the water supply and sewerage pipelines within the 1:50 year floodlines of the affected watercourses annually and repair / address leaks timeously.

Essential mitigation measures to address water quality impairment during the operational phase (both alternatives):

- Ensure that all new sewerage pipelines within the 1:50 year floodline of the Sand River are lined with an internal Kevlar or similar sleave;
- Inspect all sewerage infrastructure within the 1:50 year floodline annually and repair / address leaks timeously.

On the basis of the assessment of the potentially significant freshwater ecological impacts associated with the pipeline crossings alone the development proposal is supported. The added opportunity to rehabilitate the 'landfill' watercourse immediately upstream of the proposed crossing point, if acceptable to the developer, provides further motivation for supporting the proposed development from a freshwater ecological perspective.

Risk Assessment

The approach taken in completing the Risk Assessment Matrix is summarised below:

- The assessment is based on the assumption that the recommended mitigation measures will be effectively implemented and as such the risk assessment reflects the "with mitigation" scenario. It

has also been assumed that the developer will not elect to rehabilitate the 'landfill' watercourse as the developer was not the responsible party and the rehabilitation of this watercourse is not considered an essential mitigation measure.

- All of the activities potentially generating negative impacts were found to be associated with a LOW risk class.
- Most of the identified negative impacts are limited to the impact site or are site-specific with the exception of the increased erosion and sedimentation associated with the installation of the pipeline and the operational phase impacts of alteration of flow regime and water quality impairment associated with potential failure and leaks.
- All the identified construction phase-related impacts have been rated as having a short term duration whereas the operational phase impacts have been rated as having a long term duration as it is uncertain whether the leaks would be detected timeously.
- All the identified construction phase-related impacts have been rated as having a probability of 60% of occurring with the exception of erosion and sedimentation which is rated as having a 100% chance of occurring. All the identified operational phase-related impacts are rated as having a probability of 20% as it is unlikely yet probable that leaks will occur.
- The confidence rating for the risk assessment is Medium for all identified impacts.

Given that all of the activities are associated with a LOW risk rating the proposed development qualifies for a General Authorisation (GA) as far as the Section 21 (c) and (i) water uses are concerned.

Please refer to the Risk Assessment Matrix provided in Appendix 4 for further detail.

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Appendix 1 – Impact Assessment Methodology[7]

Impact Rating Methodology

The methodology used in this EIA process to assess and rate the significance of potential impacts is outlined in this section.

The significance of an impact is defined as a combination of the consequence of the impact occurring and the probability that the impact will occur.

The criteria used to determine impact consequence are presented in Table 1 below.

Table 1: Criteria used to determine the Consequence of the Impact

Rating	Definition of Rating	Score
A. Extent– the area over which the impact will be experienced		
None		0
Local	Confined to project or study area or part thereof (e.g. site)	1
Regional	The region, which may be defined in various ways, e.g. cadastral, catchment, topographic	2
(Inter) national	Nationally or beyond	3
B. Intensity– the magnitude of the impact in relation to the sensitivity of the receiving environment		
None		0
Low	Natural and/or social functions and processes are negligibly altered	1
Medium	Natural and/or social functions and processes continue albeit in a modified way	2
High	Natural and/or social functions or processes are severely altered	3
C. Duration– the time frame for which the impact will be experienced		
None		0
Short-term	Up to 2 years	1
Medium-term	2 to 15 years	2
Long-term	More than 15 years	3

The combined score of these three criteria corresponds to a Consequence Rating, as set out in Table 2:

Table 2: Method used to determine the Consequence Score

Combined Score (A+B+C)	0 – 2	3 – 4	5	6	7	8 – 9
Consequence Rating	Not significant	Very low	Low	Medium	High	Very high

Once the consequence is derived, the probability of the impact occurring will be considered, using the probability classifications presented in Table 3.

[7] Adapted from SRK Impact assessment methodology

Table 3: Probability Classification

Probability of impact – the likelihood of the impact occurring	
Improbable	< 40% chance of occurring
Possible	40% - 70% chance of occurring
Probable	> 70% - 90% chance of occurring
Definite	> 90% chance of occurring

The overall significance of the individual impacts will be determined by considering consequence and probability using the rating system prescribed in Table 4.

Table 4: Impact Significance Ratings

Significance Rating	**Consequence**		**Probability**
Insignificant	Very Low	&	Improbable
	Very Low	&	Possible
Very Low	Very Low	&	Probable
	Very Low	&	Definite
	Low	&	Improbable
	Low	&	Possible
Low	Low	&	Probable
	Low	&	Definite
	Medium	&	Improbable
	Medium	&	Possible
Medium	Medium	&	Probable
	Medium	&	Definite
	High	&	Improbable
	High	&	Possible
High	High	&	Probable
	High	&	Definite
	Very High	&	Improbable
	Very High	&	Possible
Very High	Very High	&	Probable
	Very High	&	Definite

Finally, the impacts will also be considered in terms of their status (positive or negative impact) and the confidence in the ascribed impact significance rating. The prescribed system for considering impacts status and confidence (in assessment) is laid out in Table 5.

Table 5: Impact status and confidence classification

Status of impact	
Indication whether the impact is adverse (negative) or beneficial (positive).	+ ve (positive – a 'benefit')
	– ve (negative – a 'cost')
	Neutral
Confidence of assessment	
The degree of confidence in predictions based on available information, EAP's judgment and/or specialist knowledge.	Low
	Medium
	High

The impact significance rating should be considered by the authority in their decision-making process based on the implications of ratings described below:

- **Insignificant:** the potential impact is negligible and will not have an influence on the decision regarding the proposed activity/development.
- **Very Low:** the potential impact should not have any meaningful influence on the decision regarding the proposed activity/development.
- **Low:** the potential impact may not have any meaningful influence on the decision regarding the proposed activity/development.
- **Medium:** the potential impact should influence the decision regarding the proposed activity/development.
- **High:** the potential impact will affect the decision regarding the proposed activity/development.
- **Very High:** The proposed activity should only be approved under special circumstances.

In the EIA practicable mitigation measures will be recommended and impacts rated in the prescribed way both without and with the assumed effective implementation of mitigation measures.

Appendix 2 – CV of the Specialist

Curriculum Vitae
of
NICHOLAS STEYTLER
Director – EnviroSwift Western Cape

CONTACT DETAILS	
Address	32 Rameron Road, Imhoffs Gift, Kommetjie 7975
Email	Nick@enviroswift.co.za
Cell	082-322 4074

PERSONAL INFO	
Full Names	Nicholas Sean Steytler
Date of Birth	28 March 1970
Nationality	South African
Languages	English, Afrikaans, isiZulu (fair)
Identity Number	7003285202088

ACADEMIC QUALIFICATIONS		
BSc	University of Natal (Pmb)	1990
BSc Honours (Zoology & Entomology) ***Cum Laude***	University of Natal (Pmb)	1991
MSc (Entomology)	University of Natal (Pmb)	1994

PUBLICATIONS

Steytler, NS and Samways, 1995. MJ. Biotope selection by adult male dragonflies (Odonata) at an artificial lake created for insect conservation in South Africa. Biological Conservation Volume 72 Issue 3, December 1995, Pages 381 – 386.

Samways, MJ and Steytler, NS. 1996. Dragonfly (Odonata) distribution patterns in urban and forest landscapes, and recommendations for riparian management. Biological Conservation Volume 78 Issue 3, December 1996, Pages 279 – 288.

MEMBERSHIP OF PROFESSIONAL ASSOCIATIONS

Registered Environmental Scientist (Pr Sci Nat 400029/02)

Member of IAIA SA

FIELDS OF EXPERTISE	**Years experience**
Integrated Environmental Management	25 years +
Natural Resource Management Planning	25 years +
Freshwater Ecological Specialist Studies	5 years +

EMPLOYMENT HISTORY
2019 – present: EnviroSwift Western Cape. Director / owner
2007 – present: KHULA Environmental Consultants. Director / owner
2005 – 2009: DJ Environmental Consultants. Associate Consultant.
2000 – 2005: SRK Consulting, Cape Town, Environmental Department. Senior Environmental Scientist.
1996 – 2000: Institute of Natural Resources, Pietermaritzburg. Associate Researcher: Natural Resources Management Programme.
WORK EXPERIENCE (note IEM and Public Participation experience not listed below)
Freshwater ecological specialist studies:
Freshwater ecological impact assessment for external services for Welmoed Urban Node, Stellenbosch (2024)
Freshwater screening study for proposed solar PV facilities on the Remainder of Portion 5 of the Farm Rietvallei No. 167, Montagu (2023)
Amendments to freshwater specialist reports submitted in support of the applications for environmental approval for the Calcutta Cemetery, Farm 29 Stellenbosch (2023)
Freshwater screening study for the proposed development of Erf 325 Atlantis, City of Cape Town, Western Cape (2023)
Freshwater screening study for the proposed development of solar PV facilities on Farms 788-6 and 792-RE, Philippi, City of Cape Town (2023)
Freshwater screening study for the Proposed development of solar PV facilities on Erven 551 and 553, Schaapkraal, City of Cape Town (2023)
Freshwater ecological impact assessment for the proposed expansion of the Rusty Gate Mountain Retreat, Greyton (2023)
Freshwater screening study of the proposed redevelopment of portions of Stikland Hospital, Erf 6300 Stikland, Bellville (2023)
Freshwater ecological specialist review & assessment for the proposed amendment to the scope of the authorised extension of Erica Drive, Belhar, City of Cape Town (2023)
Freshwater Screening study for the proposed telecommunications base station on Portion 20 of the Farm Matroosberge No. 57, De Doorns (2023)
Freshwater ecological impact assessment for the proposed subdivision of Erf 10546 Hout Bay (2023)
Freshwater screening study for the proposed expansion of Louwville township, Vredenburg (2023)
Freshwater ecological impact assessment for the residential development of Erf 178092 Newlands, City of Cape Town (2023)
Freshwater screening study for Erf 2068 Somerset West, City of Cape Town (2023)
Freshwater screening study for Portion 3 of Farm 1025 Wemmershoek, Stellenbosch Municipality (2023)
Freshwater ecological impact assessment for a new Wastewater Treatment Works for Matjiesfontein, Laingsburg Municipality (2023)
Freshwater ecological impact assessment for the development of tourism accommodation facilities at the Farm Hemelrand, Hemel en Aarde Valley, Overstrand Municipality (2023)
Freshwater screening study for residential development at Oude Bosch, Hermanus Lagoon, Overstrand Municipality (2022)
Freshwater ecological impact assessment for a proposed shopping centre at Erf 666 Hout Bay, City of Cape Town (2022)
Freshwater screening study for the proposed formalisation of the Valhalla Park informal settlement, Cape Flats, City of Cape Town (2022)
Freshwater screening study for a proposed telecommunications mast, Overhex, Breede Valley Winelands Municipality (2022)
Freshwater ecological impact assessment for the proposed expansion of the Leopard Rock residential estate, Onrusrivier, Overstrand Municipality (2022)
Freshwater screening study for the proposed low cost housing development at Wolwerivier, City of Cape Town (2022)
Freshwater ecological impact assessment for the proposed low cost housing development of Erf 148 Philadelphia, City of Cape Town (2022)
Freshwater screening study of Erf 10932 Constantia, City of Cape Town (2022)
Freshwater screening study of Erf 49 Faure, City of Cape Town (2021)
Freshwater screening study for a proposed concrete factory on the Remainder of the Farm Bultfontyn 128, near Middelburg in the Eastern Cape (2021)
Freshwater ecological impact assessment for the proposed expansion of vineyards at Mountain Rose Farm, Hemel en Aarde Valley, Overstrand Municipality (2022)
Freshwater ecological impact assessment for unlawful agricultural expansion at Plennegy Farm, Oudtshoorn, Western Cape (2021)
Freshwater screening study for the development of erven 41 and 59, Knole Park, City of Cape Town (2021)
Freshwater ecological impact assessment for proposed truck stop on Portion of Erf 10229, Beaufort West, Western Cape (2021)

Freshwater screening study for the proposed redevelopment of the Mowbray Golf Course, Pinelands, City of Cape Town (2021)
Provision of rehabilitation specifications for the unlawful excavation of a trench in a non-perennial drainage line at the Farm Vergelegen, Robertson, Western Cape (2021)
Freshwater ecological impact assessment for unlawful agricultural expansion at Samber Farms, Riversdale, Western Cape (2021)
Freshwater ecological impact assessment for proposed expansion of an in-stream irrigation dam at Farm Hartebeest Kuil, George, Western Cape (2021)
Freshwater screening study for the proposed residential development of Erf 208 Bishopscourt, City of Cape Town (2021)
Freshwater screening study for the proposed agricultural processing facility, Maqinqi communal area, Port St. Johns Municipality, Eastern Cape (2021)
Freshwater ecological impact assessment for the proposed agricultural expansion at the Farm Vergelegen, Robertson, Western Cape (2021)
Freshwater ecological impact assessment for a proposed residential development in Plattekloof, City of Cape Town (2021)
Freshwater ecological screening study for the proposed sewerage pipeline for Schulz Vlei development, Philippi, City of Cape Town (2021)
Freshwater ecological impact assessment for the proposed development of an agro-industrial facility, Wemmershoek, Western Cape (2021)
Freshwater ecological screening study for a proposed filling station in Eerste River, City of Cape Town (2020)
Freshwater ecological impact assessment for an unlawfully constructed tourist accommodation facility, Tulbagh, Western Cape (2020)
Freshwater ecological screening study and risk assessment for additions and alterations to an existing residential dwelling, Breede River, Western Cape (2020)
Freshwater ecological screening study for a proposed truck depot and filling station, Paarl, Western Cape (2020)
Freshwater ecological screening study for a proposed phosphate mine, Saldanha, Western Cape (2020)
Freshwater ecological screening study for a single residential development at Oppi Berg, Ceres, Western Cape (2020)
Freshwater ecological screening study for a proposed industrial area expansion, Bredasdorp, Overberg, Western Cape (2020)
Freshwater ecological impact assessment for proposed Canola plant at Erf 15711 Wellington, Drakenstein Municipality (2020)
Freshwater ecological impact assessment for single residential development of Ptn 13 of Farm 563 Kleinmond (2020)
Freshwater ecological impact assessment for new IRT bus depot, Wynberg, City of Cape Town (2019)
Freshwater ecological screening study for Blackheath Printers, Blackheath, City of Cape Town (2019)
Freshwater ecological screening study for La Motte residential extension, Franschoek (2019)
Freshwater ecological impact assessment for Vloedbos Resort, Overberg (2019)
Freshwater ecological screening study for Erf 3660 Hout Bay, City of Cape Town (2019)
Freshwater ecological screening study for Erf 2145 Constantia, City of Cape Town (2019)
Freshwater ecological impact assessment for low-cost housing development in Khayelitsha (2019)
Freshwater ecological impact assessment for Kommetjie Vineyards Estate, City of Cape Town (2018)
Freshwater ecological screening study for Remainder Erf 177887 Ottery, City of Cape Town (2018)
Environmental Planning and Natural Resources Management:
Preparation of an Invasive Alien Plant Clearing Plan for Erf 6289 Hout Bay, City of Cape Town (2021)
Preparation of an Invasive Alien Plant Clearing Plan for Shamballah Tea House, Cape Point, City of Cape Town (2019)
Preparation of an Invasive Alien Plant Clearing Plan for Imhoff Farm, Southern Peninsula, City of Cape Town (2018)
Preparation of a River Maintenance Management Plan for the Jakkals River, Elgin, Theewaterskloof Municipality (2018)
Preparation of a River Maintenance Management Plan for wetlands associated with the Bottelary River, Hazendal Wine Farm, Stellenbosch (2017)
Preparation of an Alien Plant Clearing Programme for the Farm Wildschutsbrand, Cape Point (2017).
Preparation of an Alien Plant Clearing Programme for Lalapanzi Farm, Cape Point (2017).
Preparation of a River Maintenance Management Plan for the Dawidskraal River, Bettys Bay, Overstrand (2016)
Preparation of a Site Rehabilitation and Management Plan for wetlands at Kraaifontein Shooting club, Northern Cape Metro (2015)
Preparation of a Wetland Maintenance and Management Plan for De Goede Hoop Estate, Noordhoek, South Peninsula (2014)
Application for Off-Road Vehicle Regulations licence for boat launching facility, Oceana Power Boat Club slipway, V&A Waterfront (2014)
Preparation of a Maintenance Management Plan for the Silvermine River, Clovelly Country Club, South Peninsula (2014)
Preparation of a Maintenance Management Plan for the rehabilitation and maintenance of an unnamed stream and associated infrastructure, Klein Constantia Winefarm, Cape Metropole (2014)
Environmental Screening for the proposed redevelopment of the Tygerberg Hospital, Northern Cape Metropole (2014)

Establishment of a Permanent Coastal Development Setback Line for the V&A Waterfront, City of Cape Town (2014)
Preparation of a Maintenance Management Plan for the ongoing maintenance of the access road to the West Coast Rock Lobster holding facility, Witsand Island, Scarborough, City of Cape Town (2013)
Preparation of a Maintenance Management Plan for the Kromboom River, Erf 117459 Lansdowne, Cape Metropole (2013)
Preparation of a Rehabilitation Plan for the remediation of unlawful infilling of a wetland at Lalapanzi Farm, Cape Point (2012)
Preparation of a Rehabilitation Plan for the remediation of unlawful construction of a parking area at Erf 935 Noordhoek Farm Village, City of Cape Town (2012)
Preparation of a rehabilitation plan for the closure of the Retreat Filling Station, City of Cape Town (2012)
Khayeltisha Wetlands Park – Park Delineation and Management Review, City of Cape Town (2010)
Preparation of the Coast & Estuaries Theme for the 1st review of Eastern Cape State of the Environment Report (2009)
Preparation of 2010 FIFA World Cup Greening Business Plan for Polokwane, Limpopo Province (2008)
Preparation of 2010 FIFA World Cup Greening Business Plan for Rustenburg, North West Province (2008)
Revision of the Table Mountain National Park Conservation Development Framework, City of Cape Town (2006)
Comparative Evaluation of alternative venues for the 2010 FIFA World Cup Stadium, City of Cape Town (2006)
Preparation of a Strategic Management Framework for the Kogelberg Biosphere Reserve, Overberg (2005 – 2006)
Preparation of concept document and proposal to undertake a SADC regional market survey of the indigenous fibre trade, SADC Region (2006)
Strategic Planning of Cemeteries in the Drakenstein Municipality (2006)
Environmental assessment of overnight sites for the Hoerikwaggo Trails, Table Mountain National Park, Western Cape (2005)
Preparation of the Year 1 State of the Environment Report for the Western Cape (2005)
Preparation of a Water Resources Management Strategy for Mozambique (2004)
Due Diligence Study for the proposed Mozaq Limitada Prawn Farm, Mozambique (2003)
Preparation of the Culemborg Development Framework, City of Cape Town (2001)
Restoration Planning of the Bokramspruit River, Kommetjie, City of Cape Town (2001)
Management and Maintenance Planning of the Dwars River, Ceres (2001)
Preparation of the Garden Route Spatial Development Framework, Southern Cape (2001)
Strategic Planning of the information needs of a Medicinal Plants Network in the SADC region (1999)
Research to determine potential commercial products from the Wild - Medicinal Plants component, South Africa (1999)
Economic Evaluation of the Cultivation of Nine Species of Medicinal Plants Indigenous to South Africa (1998)
Faunal specialist study for the proposed N2 by-pass, Natal Drakensberg, KwaZulu-Natal (1997).
Freshwater specialist study for the proposed construction of a bridge over the Msunduzi River, Voortrekker Highschool, Pietermaritzburg (1997)
Strategic Planning of a proposed community based indigenous forest management project, Eastern Cape (1998)
Preparation of a decision support manual for community-based urban riparian systems management (RIPARI-MAN) (1998)
Preparation of an Integrated Catchment Management Plan for the Msunduzi River Catchment, Pietermaritzburg (1997)
Development of Flood Response Strategies for the Msunduzi River Catchment, Pietermaritzburg (1997)
Evaluating community-based wildlife management projects in the SADC region as part of the international project by IIED / IUCN called “Evaluating Eden” (1996)

Appendix 3 – Declaration of Independence

I, Nick Steytler, as the appointed independent specialist, in terms of the 2014 EIA Regulations (as amended), hereby declare that:

I act as the independent specialist in this application;

I perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;

I regard the information contained in this report as it relates to my specialist input/study to be true and correct, and do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the NEMA, the Environmental Impact Assessment Regulations, 2014 (as amended) and any specific environmental management Act;

I declare that there are no circumstances that may compromise my objectivity in performing such work;

I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;

I will comply with the Act, Regulations and all other applicable legislation;

I have no, and will not engage in, conflicting interests in the undertaking of the activity; I have no vested interest in the proposed activity proceeding;

I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;

I have ensured that information containing all relevant facts in respect of the specialist input/study was distributed or made available to interested and affected parties and the public and that participation by interested and affected parties was facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments on the specialist input/study;

I have ensured that the comments of all interested and affected parties on the specialist input/study were considered, recorded and submitted to the competent authority in respect of the application;

All the particulars furnished by me in this specialist input/study are true and correct; and
I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.

Signature of the specialist:

Name of Specialist: Nick Steytler

Date: 09/09/2022

Appendix 4 – Risk Assessment Matrix

PROJECT: **Welmoed Estate - external services**

RISK ASSESSMENT MATRIX for Section 21 (c) and (i) Water Use activities - Version 2.1.1

Name of Assessor: Nick Steyter **Signature:**

SACNASP Registration Number: 400029/02

Date of assessment: 22-Mar-24

Risk to be scored for all relevant phases of the project (**factoring in specified control measures**). MUST BE COMPLETED BY SACNASP PROFESSIONAL MEMBER REGISTERED IN AN APPROPRIATE FIELD OF EXPERTISE.

Phase	Activity	Impact	Potentially affected watercourses			Intensity of Impact on Resource Quality					Overall Intensity (max = 10)	Spatial scale (max = 5)	Duration (max = 5)	Severity (max = 20)	Importance rating (max = 5)	Consequence (max = 100)	Likelihood (Probability) of impact	Significance (max = 100)	Risk Rating	Confidence level
						Abiotic Habitat (Drivers)			Biota (Responses)											
			Name/s	PES	Overall Watercourse Importance	Hydrology	Water Quality	Geomorph	Vegetation	Fauna										
CONSTRUCTION	Site preparation and trench excavations	Alteration of Flow Regime	All watercourses	D	Low / Very low	2	0	1	2	1	4	2	2	8	2	16	60%	9,6	L	Medium
		Erosion and sedimentation	All watercourses	D	Low / Very low	0	2	2	1	1	4	5	2	11	2	22	80%	17,6	L	Medium
		Water quality impairment	All watercourses	D	Low / Very low	0	2	0	2	1	4	2	2	8	2	16	60%	9,6	L	Medium
	Driving of construction machinery and storage of construction materials	Biota loss	All watercourses	D	Low / Very low	0	0	0	2	3	6	2	2	10	2	20	100%	20	L	Medium
		<2b>									0			0	none	#VALUE!		#VALUE!	#VALUE!	
		<2c>									0			0	none	#VALUE!		#VALUE!	#VALUE!	
	<3>	<3a>									0			0	none	#VALUE!		#VALUE!	#VALUE!	
		<3b>									0			0	none	#VALUE!		#VALUE!	#VALUE!	
		<3c>									0			0	none	#VALUE!		#VALUE!	#VALUE!	
OPERATIONAL	Failure / damage to water supply pipeline	Alteration of flow regime	All watercourses	D	Low / Very low	2	2	0	2	1	4	5	4	13	2	26	20%	5,2	L	Medium
		Water quality impairment	All watercourses	D	Low / Very low	-1	1	0	1	0	2	5	4	11	2	22	20%	4,4	L	Medium
		<1c>									0			0	none	#VALUE!		#VALUE!	#VALUE!	
	Failure / damage to sewerage pipeline	Alteration of flow regime	All watercourses	D	Low / Very low	2	2	0	2	1	4	5	4	13	2	26	20%	5,2	L	Medium
		Water quality impairment	All watercourses	D	Low / Very low	2	3	0	2	1	6	5	4	15	2	30	20%	6	L	Medium
		<2c>									0			0	none	#VALUE!		#VALUE!	#VALUE!	
	<3>	<3a>									0			0	none	#VALUE!		#VALUE!	#VALUE!	
		<3b>									0			0	none	#VALUE!		#VALUE!	#VALUE!	
		<3c>									0			0	none	#VALUE!		#VALUE!	#VALUE!	

END OF REPORT

ANNEXURE H: Draft Maintenance Management Plan

Western Cape Government

Department of Environmental Affairs and Development Planning

ADOPTION OF A MAINTENANCE MANAGEMENT PLAN

Request for the adoption of a Maintenance Management Plan in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment ("EIA") Regulations, 2014.

APRIL 2024

DEPARTMENTAL DETAILS	
CAPE TOWN OFFICE: **DIRECTORATE: DEVELOPMENT MANAGEMENT (REGION 1)** (City of Cape Town, West Coast District, Cape Winelands District & Overberg District)	~~**GEORGE REGIONAL OFFICE:**~~ ~~**DIRECTORATE: DEVELOPMENT MANAGEMENT (REGION 3)**~~ ~~(Central Karoo District & Garden Route District)~~
The completed Form must be sent via electronic mail to: DEADPEIAAdmin@westerncape.gov.za Queries should be directed to the Directorate: Development Management (Region 1) at: E-mail: DEADPEIAAdmin@westerncape.gov.za Tel: (021) 483-5829 Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 1) Private Bag X 9086 Cape Town, 8000	~~The completed Form must be sent via electronic mail to:~~ ~~DEADPEIAAdmin.George@westerncape.gov.za~~ ~~Queries should be directed to the Directorate: Development Management (Region 3) at:~~ ~~E-mail: DEADPEIAAdmin.George@westerncape.gov.za~~ ~~Tel: (044) 814-2006~~ ~~Western Cape Government~~ ~~Department of Environmental Affairs and Development Planning~~ ~~Attention: Directorate: Development Management (Region 3)~~ ~~Private Bag X 6509~~ ~~George,~~ ~~6530~~

IMPORTANT INFORMATION TO BE READ PRIOR TO COMPLETING THE ATTACHED FORM:

1. Purpose

The purpose of this form is to provide baseline information for the adoption of a Maintenance Management Plan ("MMP) by the competent authority.

2. Administrative requirements

This form must be used to request the competent authority to adopt a Maintenance Management Plan in terms of the NEMA EIA Regulations, 2014.

3. Maintenance Management Plan information

3.1 This form is for the adoption of a MMP and only relates to the Listed Activities as contained in Listing Notice 1, 2 and 3 of the EIA Regulations, 2014 that make provision for the adoption of a MMP.

3.2 Please note that an MMP can only be considered for activities pertaining to maintenance related work. Construction work related to new or expanded structures or infrastructure beyond the existing footprint cannot be considered as part of the request for the adoption a MMP by the competent authority.

3.3 Construction work related to new or expanded structures or infrastructure beyond the existing footprint may trigger a listed activity in terms of the EIA Regulations, 2014 and environmental authorisation may be required. If this is the case an application for environmental authorisation must be submitted to the competent authority.

3.4 Notwithstanding the MMP possibly being defined or adopted by the Competent Authority, any other applicable statutory requirements 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)).

3.5 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.

3.6 The adoption of a 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.

3.7 Please note that the content of a MMP must include *inter alia*, the following:

- A description of the objectives of the MMP;
- A description of the relevant legislation and polices within which the MMP is prepared;
- A description of the site and a locality map;
- A description of the proposed maintenance activities;
- A description of the tasks that will be performed (method statement);
- A description of the potential impacts on the receiving environment and any management and/or mitigation measures to minimise the potential impacts associated with the maintenance activity;
- Any specialist inputs that were obtained; and
- The roles and the responsibilities of the role players who will be involved in the maintenance activity.

3.8. A public participation process must be undertaken as part of the request for the competent authority to adopt a MMP. As a minimum you will be required to:

- inform the surrounding neighbours, your local authority and the relevant water authority of your intentions (these interested and affected parties will be regarded as registered interested and affected parties);
- allow a minimum of 30 days as a commenting period for these interested and affected parties;
- obtain written comment from all relevant Organs of State and the Local Authority; and
- respond to comments received and the proof of the public participation including all comments received and responses provided thereto must be submitted to the competent authority.

4. General

4.1 *Submission of documentation, reports and other correspondence:*

The Department has adopted a digital format for corresponding with proponents/applicants or the general public. If there is a conflict between this approach and any provision in the legislation, then the provisions in the legislation prevail. If there is any uncertainty about the requirements or arrangements, the relevant competent authority must be consulted.

The Directorate: Development Management has created generic e-mail addresses for the respective Regions, to centralise their administration. Please make use of the relevant general administration e-mail address below when submitting documents:

DEADPEIAAdmin@westerncape.gov.za

Directorate: Development Management (Region 1):
City of Cape Town; West Coast District Municipal area;
Cape Winelands District Municipal area and Overberg District Municipal area.

DEADPEIAAdmin.George@westerncape.gov.za

Directorate: Development Management (Region 3):
Garden Route District Municipal area and Central Karoo District Municipal area

General queries must be submitted via the general administration e-mail for EIA related queries. Where a case-officer of DEA&DP has been assigned, correspondence may be directed to such official and copied to the relevant general administration e-mail for record purposes.

4.2 The required information must be typed within the spaces provided in the form. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. The tables may be expanded where necessary. Please make use contrasting colours in the answer blocks to improve the visibility and highlight information.

4.3 The quality, correctness and detail of information submitted by you is extremely important and it remains your responsibility to interrogate the specifics of your proposed development in order to report on the potential listed activities in this form.

4.4 This form is a guide to the information that must be submitted. Any additional information, pictorial evidence or explanations prompted by the form must be submitted along with this form in order to ensure that the competent authority does not need to request additional information from you. Incomplete forms will result in a request for additional information.

4.5 Unless protected by law all information contained in, and attached to this form, will become public information on receipt by the Department. Upon request, the Applicant/EAP must provide any interested and affected party with the information contained in or submitted with this Form.

Protection of Personal Information Act, 2013 (Act No. 4 of 2013) ("POPIA"):
Your attention is drawn to POPIA which is a comprehensive data protection legislation enacted in South Africa and came into effect on 1 July 2020. POPIA aims to give effect to the constitutional right to privacy, whilst balancing this against competing rights and interests, particularly the right of access to information. Please note that your personal information will only be used as far as it relates to the EIA process. By including your personal details in the Form and any subsequent reports and documents it will be deemed as giving consent to use this information as far as it relates to the EIA process.

4.6 This form is current as of **April 2024**. It is the responsibility of the Proponent/EAP to ascertain whether subsequent versions of the form have been released by the Department. Visit the Department's website at http://westerncape.gov.za/eadp to check for the latest version of this Form.

4.7 This form must be **duly dated and signed** by the Proponent and/or EAP (wherever applicable) and must be submitted to the Department at the details provided below.

4.8 Please note that it is an offence for a person to provide incorrect or misleading information in any form, including any document submitted in terms of the EIA Regulations to a competent authority or omits information that may have an influence on the outcome of a decision of a competent authority.

5. Circulars, Guidelines and Tools

The Department's latest Circulars pertaining to the "One Environmental Management System" and the EIA Regulations, and guidelines must be taken into account when completing this Form.

ADOPTION OF A MAINTENANCE MANAGEMENT PLAN FORM

REQUEST FOR THE ADOPTION OF A MAINTENANCE MANAGEMENT PLAN IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) ("NEMA") AND THE ENVIRONMENTAL IMPACT ASSESSMENT ("EIA") REGULATIONS, 2014.

APRIL 2024

GENERAL PROJECT DESCRIPTION

(This must Include an overview of the project including the Farm name/Portion/Erf number/the extent of the maintenance activities)

External municipal services infrastructure (potable water pipeline and sewer rising main) for Welmoed Village development on Portion 28 of Farm Welmoed Estate No. 468, Stellenbosch. The sewer line is mostly along property boundaries next to and in public roads (Lynedoch Road and Baden Powell). The water pipeline is inside of existing farm roads along the property boundaries of the farms.

SEWER	SG 21-DIGIT CODE	SITUATION
Ptn 4 Farm Vlottenburg Annex 390	C06700000000039000004	Watercourse MMP area
Ptn 18 Farm Vlottenburg Annex 390	C06700000000039000018	Watercourse MMP area
WATER:		
Ptn 1 Farm Lyndoch 489	C06700000000048900001	Watercourse MMP area
Ptn 14 Farm Spier 491	C06700000000049100014	Watercourse MMP area
Ptn 2 Farm Spier 491	C06700000000049100002	Watercourse MMP area
Ptn 2 Farm Schuldpad Vlei 394	C06700000000039400002	Watercourse MMP area

Maintenance activities under the MMP will occur in three places, namely:

- Water: On the boundary between Ptn 2 Farm 394 and Ptn 2 Farm 491;
- Water: On the boundary between Ptn 1 Farm 489 and Ptn 14 Farm 491; and
- Sewer: Stream crossing inside the Baden Powell road reserve on Ptn 18 Farm 390.

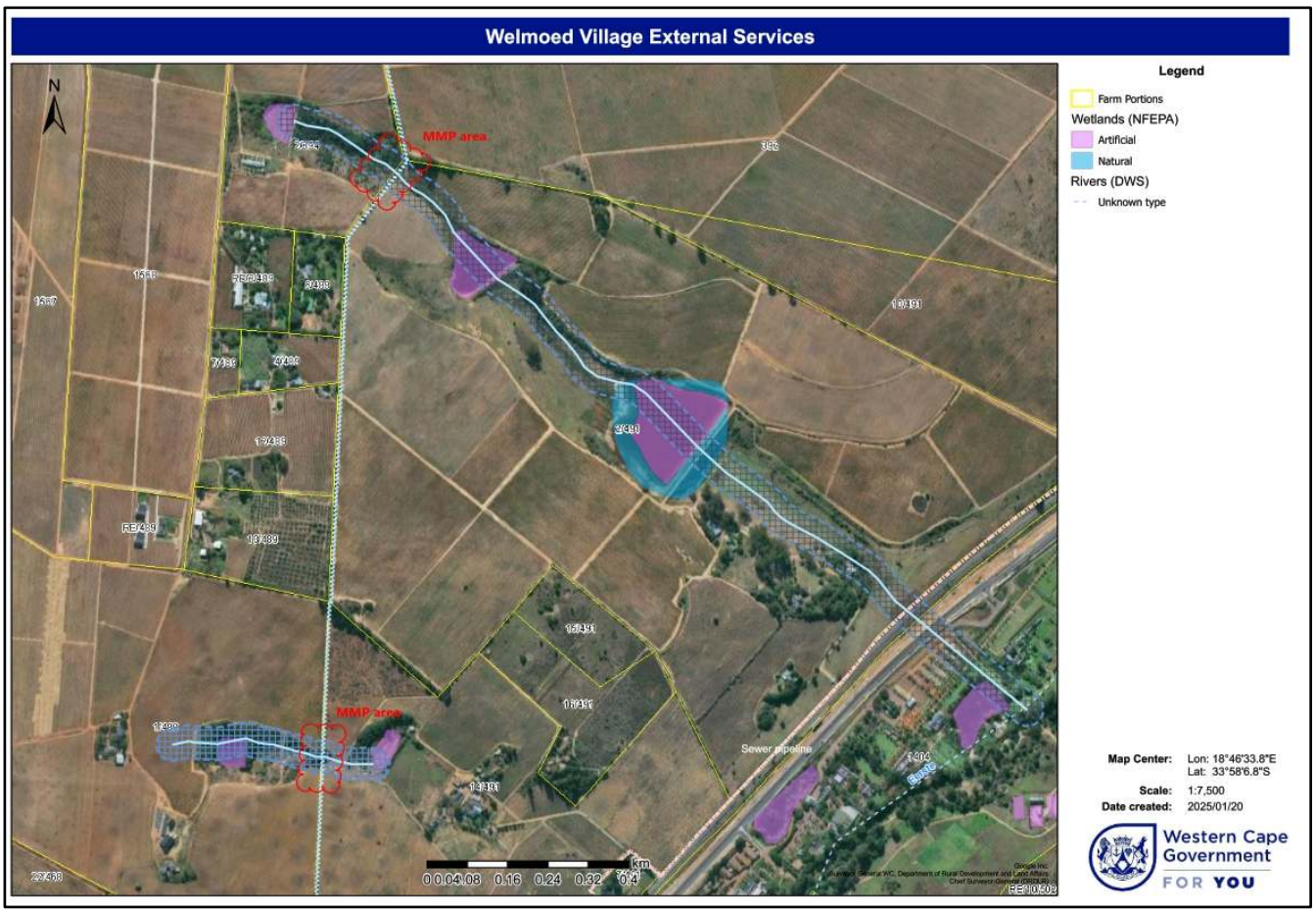
GENERAL REQUIREMENTS

1.1. Locality Map

A locality map must be attached to the Form, as Appendix A. The scale of the locality map must be at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map. The map must include the following:

- an accurate indication of the project site position;
- road names or numbers of all the major roads as well as the roads that provide access to the site(s)
- a north arrow;
- a legend;
- the prevailing wind direction; and
- GPS co-ordinates (Indicate the position of the proposed maintenance activities on the site). The co-ordinates should be in degrees, minutes and seconds. The minutes and seconds should be to at least three decimal places. The projection that must be used in all cases is the Hartebeesthoek94 WGS84 co-ordinate system**. If maintenance activities will be undertaken along a stretch of a watercourse, the start, middle and end co-ordinates must be provided.**


Welmoed Village External Services
N
MMP area
MMP area
MMP area
Potable water line
Sewer pipeline
Legend
Servitude Line
Servitude Area
Farm Portions
Erf
Wetlands (NFEPA)
Artificial
Natural
Rivers (DWS)
CLASS
Unknown type
km
0 0.1 0.2 0.3 0.4 0.5
Map Center: Lon: 18°47'1.5"E
Lat: 33°58'28.3"S
Scale: 1:10,000
Date created: January 20, 2025
Western Cape Government
FOR YOU


Welmoed Village External Services
N
MMP area
MMP area
Sewer pipeline
0 0.04 0.08 0.16 0.24 0.32 0.4 km
Legend
Farm Portions
Wetlands (NFEPA)
Artificial
Natural
Rivers (DWS)
Unknown type
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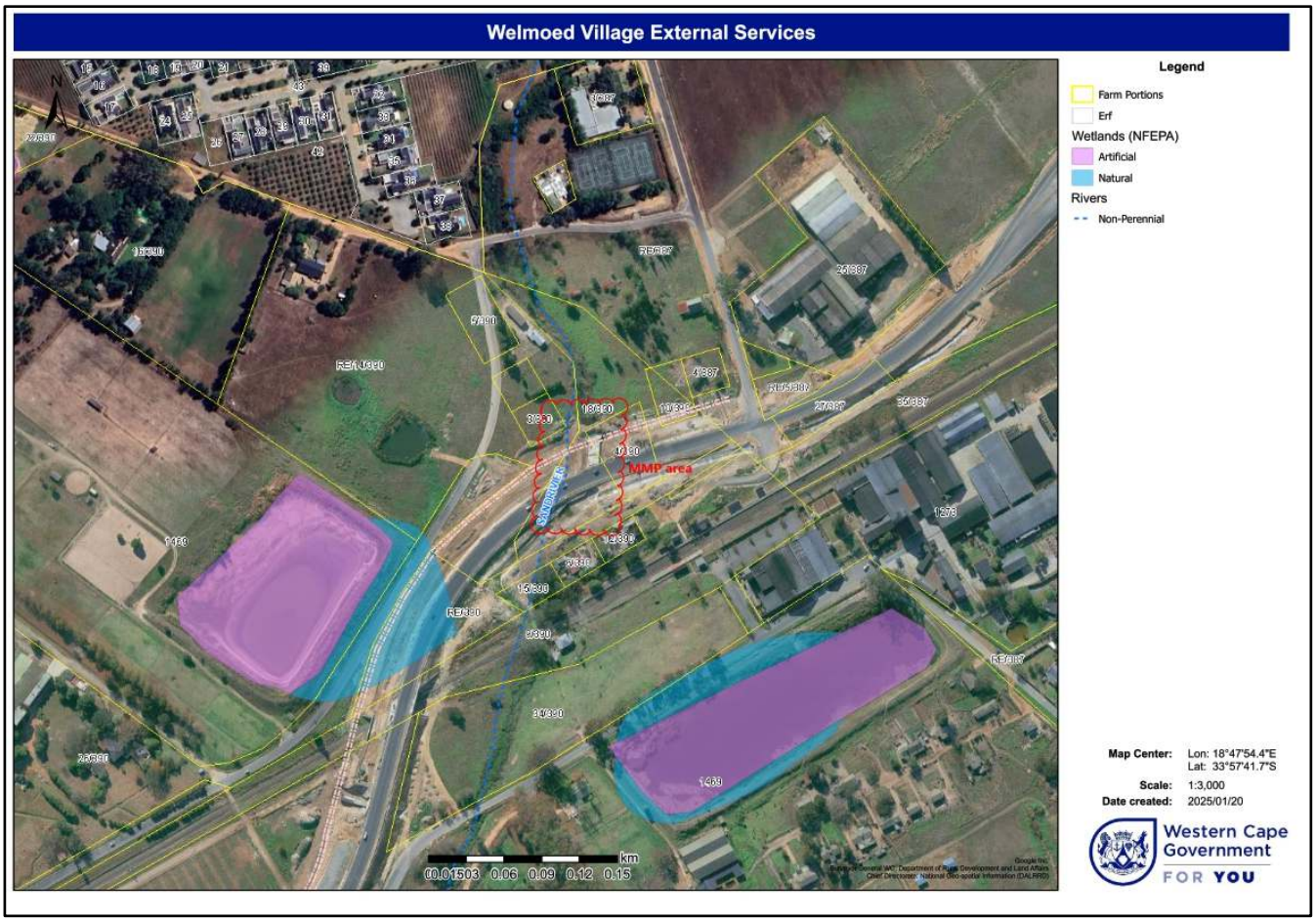
Scale: 1:7,500
Date created: 2025/01/20
Western Cape Government
FOR YOU


Welmoed Village External Services
N
MMP area
0 0.01503 0.06 0.09 0.12 0.15 km
Legend
Farm Portions
Erf
Wetlands (NFEPA)
Artificial
Natural
Rivers
Non-Perennial
Map Center: Lon: 18°47'54.4"E Lat: 33°57'41.7"S
Scale: 1:3,000
Date created: 2025/01/20
Western Cape Government
FOR YOU

PART 1: ADMINISTRATIVE DETAILS

SECTION A: DETAILS OF PROPONENT | EAP | LANDOWNER | MUNICIPALITY

Highlight the Departmental Region and District in which the intended application will fall							
		CAPE TOWN OFFICE (REGION 1)				**~~GEORGE REGIONAL OFFICE (REGION 3)~~**	
		~~City of Cape Town~~		Cape Winelands District		~~Central Karoo District~~	
		~~West Coast District~~		~~Overberg District~~		~~Garden Route District~~	
Duplicate this section where there is more than one Proponent							
1.	Name of Proponent:	Uniqon Developers (Pty) Ltd					
	Contact person name (if other):	Mr Etienne Coetzer					
	Company/ Trading name State Department/Organ of State:	Uniqon Developers (Pty) Ltd					
	Company Registration Number:	1997/021737/07					
	Postal address & Postal code:	17 Catherine Road, Shere, Pretoria East			Code	0084	
	Contact numbers:	Tel.	+27 12 8[redacted]2	Cell:	+27 83 [redacted]9		
	E-mail:	e[redacted]@u[redacted].c[redacted]					
2.	Company of EAP/Specialists:	Virdus Works Environmental (Pty) Ltd					
	EAP / Candidate EAP / Specialist name:	Dupré Lombaard					
	EAP / Specialists registration no:	2019/304					
	Postal address & Postal code:	11 Elektron Street, Techno Park, Stellenbosch			Code	7600	
	Contact numbers:	Tel.	+27(0) 82 895 6362	Cell:	+27(0) 82 895 6362		
	E-mail:	dupre.lombaard@virdus.com					
Duplicate this section where there is more than one Landowner							
3.	Name of landowner:	Ptn 2 Farm 394 - Nidri Farms Trust					
	Name of contact person for landowner (if other):	Mr Jacques Borman					
	Postal address & Postal code:	Boschkloof Wines, Stellenbosch			Code	7600	
	Contact numbers:	Tel.	+27	Cell:	+27 6[redacted]		
	E-mail:	j[redacted]s@b[redacted]					
3.	Name of landowner:	Ptn 2 Farm 491 – Sevilo Farm (Pty) Ltd					
	Name of contact person for landowner (if other):	Mr Guy Weber					
	Postal address & Postal code:	Neethlingshof Wines, Stellenbosch			Code	7600	
	Contact numbers:	Tel.	+27 21 8[redacted]8	Cell:	+27 82 [redacted]1		
	E-mail:	g[redacted]@s[redacted]					
3.	Name of landowner:	Ptn 1 Farm 489 - Solid Spark Investments (Pty) Ltd					
	Name of contact person for landowner (if other):	Mr Willie Joubert					
	Postal address & Postal code:	Skilpadvlei Wines, Stellenbosch			Code	7600	
	Contact numbers:	Tel.	+27	Cell:	+27 82 [redacted]3		
	E-mail:	w[redacted]@s[redacted]					
3.	Name of landowner:	Ptn 14 Farm 491 - Deep Ultraviolet Holdings (Pty) Ltd					
	Name of contact person for landowner (if other):	Mr Igor Pinto					
	Postal address & Postal code:	Simonsvlei, Old Paarl Road, R101, Paarl			Code	7624	
	Contact numbers:	Tel.	+27	Cell:	+27 83 [redacted]8		
	E-mail:	i[redacted]r@j[redacted]					

3.	Name of landowner:	Western Cape Department of Infrastructure (Baden Powell Road reserve)				
	Name of contact person for landowner (if other):	Mr Christiaan Cronjé				
	Postal address & Postal code:	District Roads Engineer: Region 1 (Paarl), Dept. of Infrastructure			Code	7620
	Contact numbers:	Tel.	+ 27 21 863 2020	Cell:		
	E-mail:	Christiaan.Cronje@westerncape.gov.za				
Duplicate this section where the is more than one person in control of the land						
4.	Name of Person in control of the land:	As above under 3. Western Cape Department of Infrastructure is in charge of the Baden Powell Road reserve (Ptns 4 and 18 of Farm 390, Stellenbosch).				
	Contact person for 'person in control of the land' (if other):	As above under 3				
	Postal address & Postal code:	As above under 3			Code	
	Contact numbers:	Tel.		Cell:	Tel.	
	E-mail:					
Duplicate this section where there is more than one Municipal Jurisdiction						
5.	Municipality in whose area of jurisdiction the proposed activity will be undertaken:	Stellenbosch Municipality				
	Name of contact person:	Mr Schalk van der Merwe				
	Postal address & Postal code:	PO Box 17, Stellenbosch			Code	7599
	Contact numbers:	Tel.	+27(21) 808 8940 / 8679	Cell:	+27(0)	
	E-mail:	Schalk.VanderMerwe@stellenbosch.gov.za				

PART 2: ADOPTION OF A MAINTENANCE MANAGEMENT PLAN

SECTION B: DETAILS OF THE PROPOSED MAINTENANCE ACTIVITY(IES)

1.	Provide a detailed description of the proposed maintenance activity(ies). (Please ensure that a method statement is included for each maintenance activity.)

Repairs to infrastructure

Repairs to infrastructure is required periodically and mostly reactively after damage has occurred to the infrastructure. Pro-active maintenance measures as described below will prolong repair intervals, but unexpected events could cause repairs. Unrelated operational accidents, vandalism, floods, and material failures are examples of causes of repairs. Repairs will need to be undertaken through labour intensive and mechanical means, given the nature of the infrastructure crossing the water courses (200mm potable water pipe and 160mm sewer pipe).

Repairs to a broken sewer pipe will also entail containment of the sewerage in the water course and removal thereof by pumping it out into tankers, if it is sufficiently contained. Alternatively, if removal by suction is not possible, the flow must be contained to allow evaporation (during dry periods) and avoid further downstream pollution, or it must be allowed to filter downstream during high flow wet periods when containment will not be possible. The area must be disinfected using lime and fenced to avoid entry by humans and animals and potential biological effect on them.

Repairs to riverbanks and associated bank stabilization infrastructure

Infrastructure through or across water courses causes altered flow characteristics during high flow events, leading to bank bed scouring, erosion and damage. Infrastructure lines are often used by pedestrians to cross water courses, leading to degradation of the banks where pedestrians walk. Such damage to the banks needs to be repaired from time-to-time to avoid altered flow characteristics and bank erosion. Maintenance will entail the importation of suitable material, being soil with qualities and characteristics similar to that occurring on the banks, compaction thereof around the areas of repair and revegetation of the fill areas with suitable indigenous vegetation and where necessary temporary fencing to prevent re-occurrence of damage.

Removal of litter and sediment accumulation at infrastructure crossings

Where litter and sediment are built-up against or in the vicinity of infrastructure, it needs to be removed to ensure the free flow of water during high flow events. Build-up against infrastructure leads to increased lateral pressure on the infrastructure and the risk of damage and resulting content spillage.

Small volumes and pieces of litter can be removed by hand, but larger and heavier objects (tree trunks, rocks) and periodic large volume build-up of sediment need to be removed by mechanical means. Removal by hand will require labourers entering the water course and carrying material out onto the banks. Mechanical removal will be done by excavators and machines working from the banks.

Clearance of alien vegetation

The removal of invasive alien vegetation from the watercourse, around the infrastructure, is necessary for maintenance of the aquatic ecological functions, to avoid damage to infrastructure, and because alien vegetation growth increases bank instability and erosion potential. The alien growth will be managed by removal of the woody vegetation and creepers which could have a direct effect on the infrastructure and by trimming of reeds, grasses, and herbaceous plants. All alien management can be done by hand labour, using amongst others mechanical tools.

2.	Clearly describe the current state of the area where the maintenance activities will take place. (This must be supported by recent colour photographs)

There are two direct, open trench crossings envisaged for the two water courses, for the potable water pipelines, and one indirect crossing by way of connecting the sewer pipe to the existing bridge / culvert over the Sanddrift water course along Baden Powell Drive. The sewer pipe will be attached with brackets to the side of the Baden Powell road culvert. Down-stream of the Baden Powell road culvert the stream is channelised to under the railway line.

Sewerage pipeline crossing of the Sand River (Detailed Freshwater Ecological Assessment, Enviroswift, 22 March 2024)

The proposed sewerage pipeline crossing of the Sand River is located in the road reserve of the R310 ('Baden Powell Drive'). This area is currently subjected to extensive transformation due to the current upgrading of the R310 in the vicinity of Vlottenberg. The result is that the Sand River now discharges from a new culvert beneath the R310 into a newly created, trapezoidal, earthen channel prior to its discharge beneath a railway line after which it continues as a relatively intact system.

The portion of the Sand River in the vicinity of the proposed sewerage pipeline crossing point is almost entirely devoid of vegetation due to the recent extensive earthworks. A few individual plants had however survived including Cyperus textilis and T. capensis. A few specimens of the highly invasive A. saligna were also evident in the immediate surroundings.

Auger samples revealed no conclusive evidence of wetland versus allivial systems which would allow for a conclusive determination of the classification of the watercourse as a wetland versus a drainage line or stream due to the extreme levels of recent soil disturbance.

The potable water line will be constructed through the two water courses. The northerly water course (Ptn 2 Farm 394 - Nidri Farms Trust / Ptn 2 Farm 491 – Sevilo Farm (Pty) Ltd) and the southerly water course (Ptn 1 Farm 489 - Solid Spark Investments (Pty) Ltd / Ptn

14 Farm 491 - Deep Ultraviolet Holdings (Pty) Ltd) respectively referred to as the clean and landfill water courses in the specialist freshwater assessment (Detailed Freshwater Ecological Assessment, Enviroswift, 22 March 2024).

'Clean' watercourse water pipeline crossing (Detailed Freshwater Ecological Assessment, Enviroswift, 22 March 2024)

The so-called 'clean' watercourse originates approximately 250m to the north-west of the proposed crossing site in a small valley surrounded by vineyards and has been impounded at its source. The proposed crossing point is also a historic vehicular crossing point although at the time of the site visit recent flooding (presumably the 2024 floods that affected most of the Western Cape) had caused severe erosion of the farm road leading towards the crossing point and use of the crossing point appears to have ceased.

The vegetation associated with the watercourse immediately upstream of the proposed crossing point is dominated by Typha capensis (bullrush) which occurs in an area of flatter topography of approximately 300 square metres. Downstream of the proposed crossing point until a second impoundment some 180m to the south east, the watercourse flows through a slight to moderately sloping area where the watercourse is characterised by relatively dense macrophytes dominated by alien invasive species such as Acacia longifolia and Populus canescens (grey poplar). Rubus sp. (bramble) as well as Pennisetum clandestinum are also evident as examples of invasive herbs and grasses. Indigenous macrophytes are also present and included Olea europaea subs. africana (wild olive). Also present in this portion of the watercourse were unidentifiable indigenous sedges, T. capensis and Zantedeschia aethiopica (arum lily). The effects of livestock grazing within the watercourse were clearly evident and was the reason why the sedges could not be identified.

The soil auger sample obtained from the Typha-dominated area immediately upstream of the proposed crossing point exhibited a high degree of soil wetness, a low chroma and also a high level of organic material which is typical of the wetland permanent zone. Trickle flow was present at the crossing point and given the presence of T. capensis immediately upstream and also downstream of the crossing point suggests that the watercourse is characterised by permanently saturated soils.

'Landfill' watercourse water pipeline crossing (Detailed Freshwater Ecological Assessment, Enviroswift, 22 March 2024)

The watercourse at Site 2 has been historically used as a landfill and, while there was recent evidence of efforts to rehabilitate the watercourse, solid waste deposits were still clearly evident. The watercourse has been impounded at its source approximately 150m upstream from the proposed crossing point and ends in a second impoundment approximately 150m downstream from the proposed crossing point. The portion upstream from the proposed crossing point is significantly less impacted than the lower portion which exhibits evidence of significant earthworks and vegetation removal, presumably as a result of the rehabilitation efforts.

The area surrounding the proposed crossing point was entirely devoid of vegetation while the area upstream of the proposed crossing point, and surrounding the upstream impoundment, was characterised by a stand of relatively dense macrophytes dominated by the invasive alien Acacia melanoxylon (Blackwood) and the indigenous Olea europaea subs. Africana (wild olive). Also present within the HGM unit immediately upstream of the proposed crossing point was a stand of Phragmites australis (common reed).

Auger samples within the vicinity of the proposed crossing point did not reveal any wetland characteristics and, while these were inconclusive due to the extent of soil disturbance in the area, alluvial characteristics were evident in the excavated materials. Evidence of flow was completely absent during the site investigation thereby confirming the ephemeral nature of flow in the watercourse.

Watercourse Classification and Delineation (Detailed Freshwater Ecological Assessment, Enviroswift, 22 March 2024)

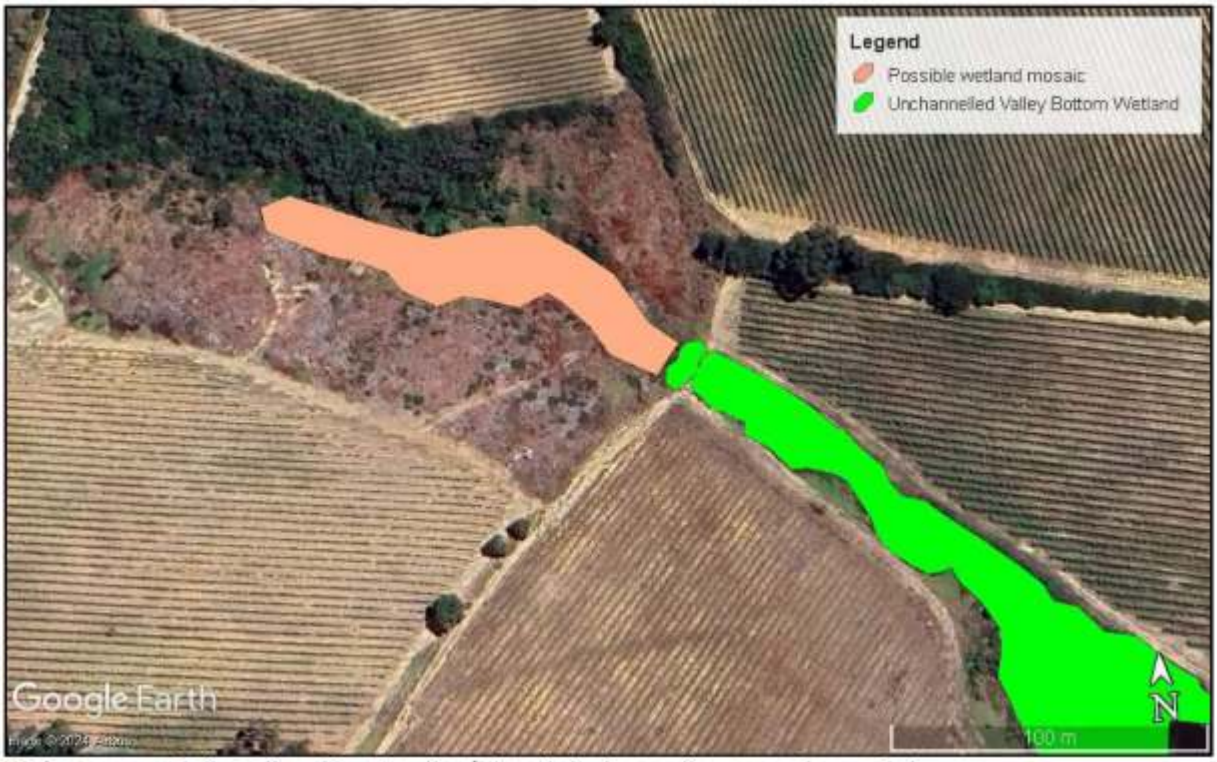
In terms of wetland and aquatic ecosystem classification user manual (Ollis et. al. 2013) the various watercourses affected by the proposed external services installations are classified as follows:

- *'Clean' watercourse: Unchannelled Valley Bottom Wetland;*
- *'Landfill' watercourse: Non-perennial drainage line; and*
- *'Sand' River: Non-perennial drainage line.*

The watercourse delineations for each of the crossing points are presented in the following three figures.

Watercourse delineation Map for the Sand River at the proposed sewerage pipeline crossing point. The yellow line indicates the approximate position of the proposed sewerage pipeline.

Figure 14: Photograph of the Sand River crossing site. The approximate alignment of the pipeline is indicated as a yellow line and the watercourse as a blue stippled line. Note the newly shaped banks and the extensive clearance of vegetation as well as the railway bridge located approximately 30m downstream of the proposed crossing point.



Watercourse delineation Map for the 'clean' drainage line crossing point

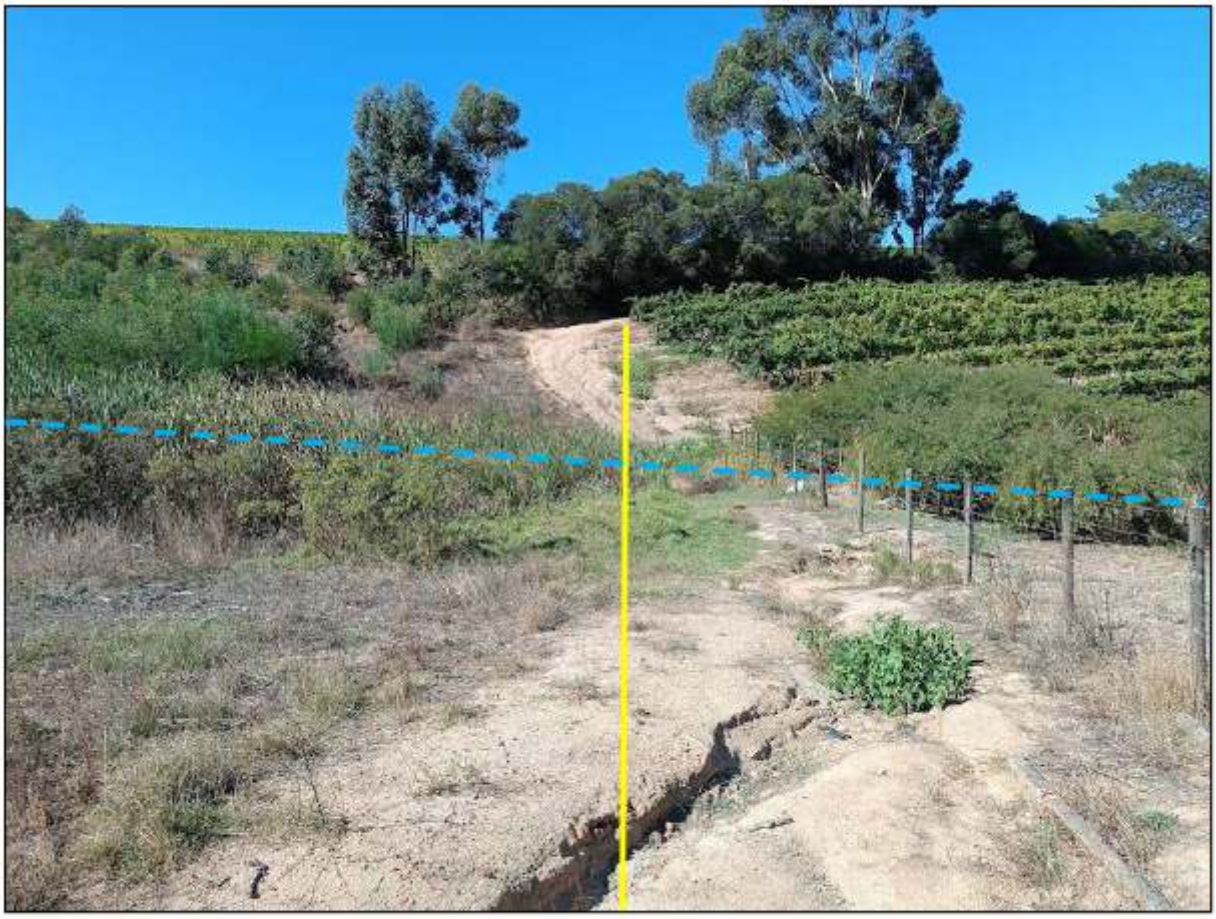


Figure 12: Photograph of the proposed water pipeline crossing of the 'clean' watercourse. The approximate alignment of the pipeline is indicated as a yellow line and the watercourse as a blue stippled line. Note the erosion of the farm road in the foreground

Watercourse delineation Map for the 'landfill' drainage line crossing point

Figure 13: Photograph of the 'landfill' watercourse crossing site. The approximate alignment of the pipeline is indicated as a yellow line and the watercourse as a blue stippled line.

3.	Property location	See inserted table below
4.	Erf/Farm name(s), number(s) and portion(s)	
5.	Property size(s) (m^2) of all proposed sites:	
6.	SG Digit code(s) of the all the proposed property(ies)	

See inserted table below																								
7.	Coordinates of the proposed site(s) where the maintenance activity/ies will be conducted:																							
	Latitude (S)	See inserted table below																						
	Longitude (E)	See inserted table below																						

SEWER	**SG 21-DIGIT CODE**	**SITUATION**	**COORDINATES**
Ptn 4 Farm Vlottenburg Annex 390	C06700000000039000004	Watercourse MMP area	S 33° 57' 40.738" / E 18° 47' 56.212"
Ptn 18 Farm Vlottenburg Annex 390	C06700000000039000018	Watercourse MMP area	S 33° 57' 40.738" / E 18° 47' 56.212"
WATER:			
Ptn 1 Farm Lyndoch 489	C06700000000048900001	Watercourse MMP area	S 33° 58' 24.524" / E 18° 46' 17.367"
Ptn 14 Farm Spier 491	C06700000000049100014	Watercourse MMP area	S 33° 58' 24.524" / E 18° 46' 17.367"
Ptn 2 Farm Spier 491	C06700000000049100002	Watercourse MMP area	S 33° 57' 47.048" / E 18° 46' 23.005"
Ptn 2 Farm Schuldpad Vlei 394	C06700000000039400002	Watercourse MMP area	S 33° 57' 47.048" / E 18° 46' 23.005"

Note: If the maintenance activities will be undertaken along a linear stretch such as a watercourse, the start, middle and end co-ordinates must be provided.

SECTION C: POTENTIAL LISTED ACTIVITIES THAT YOU REGARD TO BE APPLICABLE TO THE PROPOSED MAINTENANCE ACTIVITY(IES)

All activities listed in terms of the EIA Regulations, 2014 that may be associated with the proposed maintenance activities must be provided below.

Activity No(s):	Provide the relevant **Activities** as set out in **Listing Notice 1**	Describe the portion of the <u>proposed development</u> to which the applicable listed activity relates.
19. The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, 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; (d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or (e) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies.		Given the nature of the proposed activity, which effectively entails vegetation clearing and trench excavations across the watercourses followed by backfilling and re-compaction, the development/construction phase impacts are limited to the alteration of flow regime, erosion and sedimentation and biota loss with erosion and sedimentation rated to be the only potential impact of MEDIUM (-ve) significance unmitigated with the remaining potential impacts to be LOW (-ve) unmitigated. This impact significance rating for erosion and sedimentation is largely attributed to the fact that excavations within and near watercourses inevitably results in sediment plumes and erosion due to the destabilisation of soils which can be transported downstream and off-site thereby resulting in a REGIONAL impact extent. For the operational phase it is only the consequences of damaged and leaking pipelines that can cause potentially significant flow regime and water quality impacts, with the latter limited to the sewerage pipeline crossing of the Sand River only. The impact significance rating for these two operational phase impacts without mitigation was MEDIUM (-ve) as a result of the REGIONAL extent of both impacts (i.e. they are predicted to extend off-site) and LONG TERM duration (due to the fact that without regular leak inspections any leaks would go undetected for a long period of time. Practicable mitigation measures have been recommended to minimise and manage all the identified potential impacts to ensure that all impacts are reduced to either LOW or VERY LOW (-ve) significance ratings. The construction phase impacts could be partly avoided through ensuring that the stream crossings take place in the dry summer period and also through the appointment of an ECO to oversee the actions of the Contractor and ensure that the recommended mitigation measures (presumably incorporated into a Construction EMP) are implemented. During the operational phase the use of Kevlar sleeves and the requirement for routine pipeline inspection for early leak detection would similarly minimise the impacts to VERY LOW (-ve) significances.
Activity No(s):	Provide the relevant **Activities** as set out in **Listing Notice 2**	Describe the portion of the proposed development to which the applicable listed activity relates.
Activity No(s):	Provide the relevant **Activities** as set out in **Listing Notice 2**	Describe the portion of the proposed development to which the applicable listed activity relates.

PART 3 DECLARATIONS

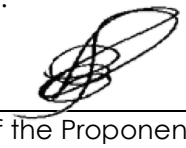
SECTION A: DECLARATION OF THE PROPONENT

Note: Duplicate this section where there is more than one Proponent.

I, ETIENNE COETZER ID Number: 7 0 0 2 2 8 [redacted] 0 8 [redacted]
in my personal capacity or duly authorised thereto hereby declare/affirm that:

- the information provided or to be provided as part of this form, is true and correct;
- I am fully aware of my responsibilities in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), the Environmental Impact Assessment ("EIA") Regulations, as defined in Chapter 5 of NEMA (as amended) and any relevant Specific Environmental Management Acts and that failure to comply with these requirements may constitute an offence in terms of relevant environmental legislation;
- I am aware that is an offence in terms of Section 24F of the NEMA should I commence with a listed activity prior to obtaining an Environmental Authorisation;
- I am aware of my general duty of care in terms of Section 28 of the NEMA;
- I will provide the EAP and specialist, where applicable, and the competent authority with access to all information at my disposal that is relevant to the application;
- I will be responsible for the costs incurred in complying with the EIA Regulations, 2014 and other environmental legislation including but not limited to –
  - costs incurred for the appointment of the EAP or any person contracted by the EAP; and
  - costs in respect of any specialists, if any.

Note: If acting in a representative capacity, a certified copy of the resolution or power of attorney must be attached.



Signature of the Proponent: 6 February 2025 Date:

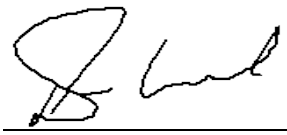
UNIQON DEVELOPERS PTY LTD
Name of company (if applicable):

SECTION B: DECLARATION OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")/SPECIALIST

I, DUPRÉ LOMBAARD	EAP / Specialist Registration Number:	2	0	1	9	/	3	0	4	

as the appointed EAP / Specialist hereby declare/affirm that:

- my EAP / Specialist Registration is current and up to date, and will inform the proponent and Department if the registration should lapse;
- the information provided or to be provided as part of this form, is true and correct;
- I have disclosed/will disclose, to the Proponent, the specialist (if any), the competent authority and registered interested and affected parties, all material information that have or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document prepared or to be prepared as part of the request for the adoption of a Maintenance Management Plan;
- I have ensured/will ensure that information containing all relevant facts in respect of the request for the adoption of a Maintenance Management Plan was/will be distributed or was/will be made available to registered interested and affected parties and that participation will be facilitated in such a manner that all interested and affected parties were/will be provided with a reasonable opportunity to participate and to provide comments;
- I have ensured/will ensure that the comments of all interested and affected parties were/will be considered, recorded and submitted to the competent authority;
- I have ensured/will ensure the inclusion of inputs and recommendations from any specialists in respect of the request for the adoption of a Maintenance Management Plan, where relevant;
- I have kept/will keep a register of all interested and affected parties that participated in the public participation process; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014.



Signature of the EAP/Specialist: 21 January 2025 Date:

Virdus Works Environmental (Pty) Ltd

Name of company (if applicable):

METHOD STATEMENT FOR USE BY CONTRACTORS: <u>REPAIRS TO INFRASTRUCTURE</u>

(Word / digital version available on request from EAP)

CONTRACT:……..…
DATE:……

PROPOSED ACTIVITY:

Repairs to infrastructure is required periodically and mostly reactively after damage has occurred to the infrastructure. Pro-active maintenance measures as described below will prolong repair intervals, but unexpected events could cause repairs. Operational accidents, vandalism, floods, and material failures are examples of causes of repairs. Repairs will need to be undertaken through labour intensive and mechanical means, given the nature of the infrastructure crossing the water courses (200mm potable water pipe and 160mm sewer pipe).

Repairs to a broken sewer pipe will also entail containment of the sewerage in the water course and removal thereof by pumping it out into tankers, if it is sufficiently contained. Alternatively, if removal by suction is not possible, the flow must be contained to allow evaporation (during dry periods) and avoid further downstream pollution, or it must be allowed to filter downstream during high flow wet periods when containment will not be possible. The area must be disinfected using lime and fenced to avoid entry by humans and animals and potential biological effect on them.

WHAT WORK IS TO BE UNDERTAKEN:

Repairs to broken or leaking pipes and preventative maintenance to replace aging pipes.

<u>Primary action:</u> Work will entail blocking of the flow of fluid in the pipes, cutting of the pipes, replacement of cut sections, securing repaired sections, and re-introduction of fluid.
<u>Secondary action:</u> To be able to do the work, the pipes need to be opened, and made accessible, requiring trenching or the erection of scaffolding or similar work surface (for pipe attached to culvert) and reinstatement of trenches or removal of work platforms.
<u>Effect action:</u> Containment of spillage, avoidance of spillage, avoidance or repair of erosion, removal of contaminated water, site rehabilitation.

<u>Typical equipment and material to be used:</u>

- Light commercial vehicle (one ton);
- Medium commercial vehicle (three – 10 ton);
- Medium commercial vacuum tanker (5 000 – 10 000l);
- Excavator;
- Digger-loader;
- Water Pump;
- Electrical generator;
- Manual labour with hand tools (spades, shovels, rakes, picks, etc);
- Cutting machines;
- Welding machines;
- Sandbags;
- Shoring boards and supports;
- Scaffolding;
- Pipes (HDPE, PVC, PE);
- Flanges;
- Lime.

WHERE ARE THE WORKS TO BE UNDERTAKEN:

The work on the sewer line occurs at the existing bridge / culvert of Baden Powell Drive over the Sanddrift River and within 30m up- and downstream of the culvert.

Work on the water pipeline occurs at the stream crossing on the boundary between Ptn 2 Farm 394 and Ptn 2 Farm 491 (northerly) and at the stream crossing on the boundary between Ptn 1 Farm 489 and Ptn 14 Farm 491 (southerly).

START AND END DATE OF THE WORKS FOR WHICH THE METHOD STATEMENT IS REQUIRED:

Start	End

HOW ARE THE WORKS TO BE UNDERTAKEN:

The works must generally comply with the following to minimise any negative effect of the maintenance activity:

- Repairs must be taken within the shortest possible time from occurrence of leak.
- Pipe repairs to be done according to the Municipality's work methods and best practice.
- Preventative or periodic maintenance must be undertaken in the dry season.
- Access to the work area must be directly from existing roads.
- Equipment and material required for the repairs need to be stored away from the watercourse.
- Machinery used must not cause hydro-carbon pollution (leaking parts, refuelling).
- If any spillage and resultant pollution has or is potentially about to occur, the flow of the watercourse must be blocked by the establishment of a sandbag barrier at least two-thirds the depth of the channel and at least 10m downstream of the works and the potential or actual spillage contained.
- Polluted water must be pumped from the water course in the shortest possible time and disposed of at the municipal waste water treatment works or other approved disposal point.
- Sandbag barrier to be removed once repairs have been completed.
- Shoring or scaffolding to be placed so as not to obstruct water flow.
- New berms must not be created along the banks of the water course.
- Top soil has to removed first when trenching occurs and kept separately from underlying soils to improve the rate and quality of site rehabilitation.
- Rehabilitate trenches and repaired or reshaped banks with topsoil and indigenous vegetation.
- The watercourse must not be deepened.
- The area where pollution occurred must be dosed with lime once the water has been extracted to avoid biological effects.

On completion of the maintenance action, the condition of the site should be similar to the pre-damaged state, i.e., the shape of the watercourse should be similar or in a state which is improved to manage future damage.

Note: please attach extra pages if more space is required

Responsible person: ……

METHOD STATEMENT FOR USE BY CONTRACTORS: <u>REPAIRS TO RIVERBANKS AND ASSOCIATED BANK STABILIZATION INFRASTRUCTURE</u>

(Word / digital version available on request from EAP)

CONTRACT:……..…
DATE:……

PROPOSED ACTIVITY:

Infrastructure across water courses causes altered flow characteristics during high flow events, leading to bank erosion and damage. Infrastructure is often used by pedestrians to cross water courses, leading to degradation of the banks where pedestrians walk. Such damage to the banks needs to be repaired from time-to-time to avoid altered flow characteristics and bank erosion. Maintenance will entail the importation of suitable material, being soil with qualities and characteristics similar to that occurring on the banks, compaction thereof around the areas of repair and revegetation of the fill areas with suitable indigenous vegetation and where necessary temporary fencing to prevent re-occurrence of damage.

WHAT WORK IS TO BE UNDERTAKEN:

Bank rehabilitation and stabilization.

<u>Primary action:</u> Work will entail importation of soil and infilling of any damaged and eroded sections.
<u>Secondary action:</u> Stabilization of the rehabilitated banks and infrastructure.

<u>Typical equipment and material to be used:</u>

- Light commercial vehicle (one ton);
- Medium commercial vehicle (three – 10 ton);
- Excavator;
- Digger-loader;
- Manual labour with hand tools (spades, shovels, rakes, picks, etc);
- Eco mats and biodegradable soil cover;
- Shoring boards and supports;
- Imported soil.

WHERE ARE THE WORKS TO BE UNDERTAKEN:

The work on the sewer line occurs at the existing bridge / culvert of Baden Powell Drive over the Sanddrift River and within 30m up- and downstream of the culvert.

Work on the water pipeline occurs at the stream crossing on the boundary between Ptn 2 Farm 394 and Ptn 2 Farm 491 (northerly) and at the stream crossing on the boundary between Ptn 1 Farm 489 and Ptn 14 Farm 491 (southerly).

START AND END DATE OF THE WORKS FOR WHICH THE METHOD STATEMENT IS REQUIRED:

Start	End

HOW ARE THE WORKS TO BE UNDERTAKEN:

The works must generally comply with the following to minimise any negative effect of the maintenance activity:

- Rehabilitation must be taken within the shortest possible time from occurrence of the erosion and bank disturbance, to avoid effect of water flow instability.

- Rehabilitation to be done according to best practice without using material other than occurring naturally in the area.
- Erosion channels and banks must be rehabilitated by importing suitable topsoil (soil with organic material and seed) similar to that existing in the area and the filling, shaping, and compaction of the gulleys.
- Preventative or periodic maintenance must be undertaken in the dry season.
- Access to the work area must be directly from existing roads.
- Equipment and material required for the repairs need to be stored away from the watercourse.
- Machinery used must not cause hydro-carbon pollution (leaking parts, refuelling).
- If any spillage and resultant pollution has or is about to occur, the flow of the watercourse must be blocked by the establishment of a sandbag barrier and the spillage contained.
- Shoring or stabilizing materials are to be placed so as not to obstruct natural water flow and cause erosion elsewhere.
- New berms must not be created along the banks of the water course.
- Rehabilitate eroded and damaged banks with topsoil and indigenous vegetation.
- The watercourse must not be deepened.
- Limit the disturbance to the bed of the watercourse.
- The build-up of debris / sediment removed from a maintenance site may be utilised for in-filling or maintenance related actions, which form part of an adopted MMP;
- All surfaces susceptible to erosion must be protected by cladding with biodegradable material and topsoil with herbs, grass and a seedbed to create a suitable groundcover.
- Banks and rehabilitation works must be appropriately compacted and landscaped.
- Temporary flow diversions need to be created while rehabilitation work occurs to prevent further erosion and storm water or user damage.
- Remove erosion and sediment controls only if all bare soil is sealed, covered or revegetated.

The use of foreign material, such as concrete, rubble, gabions, woody debris, clay, and / or imported rocks, is undesirable and prohibited for maintenance actions, unless for the specific purpose of repairs to existing infrastructure, as opposed to the banks of the watercourse. In such instance appropriate mitigation measures need to be introduced to prevent degradation of the watercourse and water.

On completion of the maintenance action, the condition of the site should be similar to the pre-damaged state, i.e., the shape of the watercourse should be similar or in a state which is improved to manage future damage.

Note: please attach extra pages if more space is required

Responsible person: ……

METHOD STATEMENT FOR USE BY CONTRACTORS: <u>REMOVAL OF LITTER AND SEDIMENT ACCUMULATION AT INFRASTRUCTURE</u>

(Word / digital version available on request from EAP)

CONTRACT:……..…
DATE:……

PROPOSED ACTIVITY:

Where litter and sediment are built-up against or in the vicinity of infrastructure, it needs to be removed to ensure the free flow of water during high flow events. Build-up against infrastructure leads to increased lateral pressure on the infrastructure and the risk of damage and resulting content spillage.

Small volumes and pieces of litter can be removed by hand, but larger and heavier objects (tree trunks, car wrecks) and periodic large volume build-up of sediment need to be removed by mechanical means. Removal by hand will require labourers entering the water course and carrying material out onto the banks. Mechanical removal will be done by excavators and machines working from the banks.

WHAT WORK IS TO BE UNDERTAKEN:

Removal of any material causing flow diversions or impediments to natural water flow in the watercourse.

<u>Primary action:</u> Work will entail removal of all material impeding the natural flow in the watercourse.
<u>Secondary action:</u> Rehabilitation of any disturbed areas.

<u>Typical equipment and material to be used:</u>

- Light commercial vehicle (one ton);
- Medium commercial vehicle (three – 10 ton);
- Excavator;
- Digger-loader;
- Manual labour with hand tools (spades, shovels, rakes, picks, etc);
- Eco mats and biodegradable soil cover;
- Imported soil.

WHERE ARE THE WORKS TO BE UNDERTAKEN:

The work on the sewer line occurs at the existing bridge / culvert of Baden Powell Drive over the Sanddrift River and within 30m up- and downstream of the culvert.

Work on the water pipeline occurs at the stream crossing on the boundary between Ptn 2 Farm 394 and Ptn 2 Farm 491 (northerly) and at the stream crossing on the boundary between Ptn 1 Farm 489 and Ptn 14 Farm 491 (southerly).

START AND END DATE OF THE WORKS FOR WHICH THE METHOD STATEMENT IS REQUIRED:

Start	End

HOW ARE THE WORKS TO BE UNDERTAKEN (provide as much detail as possible, including annotated maps and plans where possible):

The works must generally comply with the following to minimise any negative effect of the maintenance activity:

- Removal must occur within the shortest possible time from occurrence of the build-up, to avoid effect of water flow instability.
- Removal to be done according to best practice with minimal interference to the natural flow in the watercourse.
- Preventative or periodic maintenance must be undertaken in the dry season.
- Access to the work area must be directly from existing roads.
- Equipment and material required for the repairs need to be stored away from the watercourse.
- Machinery used must not cause hydro-carbon pollution (leaking parts, refuelling).
- If any spillage and resultant pollution has or is about to occur, the flow of the watercourse must be blocked by the establishment of a sandbag barrier and the spillage contained.
- New berms must not be created along the banks of the water course.
- The watercourse must not be deepened.
- Limit the disturbance to the bed of the watercourse.
- The build-up of debris / sediment removed from a maintenance site may be utilised for in-filling or maintenance related actions, which form part of an adopted MMP;
- All surfaces susceptible to erosion must be protected by cladding with biodegradable material and topsoil with herbs, grass and a seedbed to create a suitable groundcover.
- Damaged banks and work areas must be appropriately compacted and landscaped.
- Temporary flow diversions need to be created while removal occurs to prevent further build-up and resulting erosion and storm water or user damage.

On completion of the maintenance action, the condition of the site should be similar to the pre-damaged state, i.e., the shape of the watercourse should be similar or in a state which is improved to manage future damage.

Note: please attach extra pages if more space is required

Responsible person: ……

METHOD STATEMENT FOR USE BY CONTRACTORS: CLEARANCE OF ALIEN VEGETATION

(Word / digital version available on request from EAP)

CONTRACT:……
DATE:……

PROPOSED ACTIVITY:

The removal of invasive alien vegetation from the watercourse, around the infrastructure, is necessary for maintenance of the aquatic ecological functions, to avoid damage to infrastructure, and because alien vegetation growth increases bank instability and erosion potential. The alien growth will be managed by removal of the woody vegetation and creepers which could have a direct effect on the infrastructure and by trimming of reeds, grasses, and herbaceous plants. All alien management can be done by hand labour, using amongst others mechanical tools.

WHAT WORK IS TO BE UNDERTAKEN:

Clearing of alien vegetation impeding the flow in the watercourse or threatening the integrity of the infrastructure.

Primary action: Work will entail removal of alien vegetation by appropriate means that excludes the use of herbicides or other chemicals.
Secondary action: Rehabilitation of any disturbed areas.

Typical equipment and material to be used:

- Light commercial vehicle (one ton);
- Digger-loader;
- Manual labour with hand tools (spades, shovels, saws, tree-poppers, etc);
- Eco mats and biodegradable soil cover.

WHERE ARE THE WORKS TO BE UNDERTAKEN:

The work on the sewer line occurs at the existing bridge / culvert of Baden Powell Drive over the Sanddrift River and within 30m up- and downstream of the culvert.

Work on the water pipeline occurs at the stream crossing on the boundary between Ptn 2 Farm 394 and Ptn 2 Farm 491 (northerly) and at the stream crossing on the boundary between Ptn 1 Farm 489 and Ptn 14 Farm 491 (southerly).

START AND END DATE OF THE WORKS FOR WHICH THE METHOD STATEMENT IS REQUIRED:

Start	End

HOW ARE THE WORKS TO BE UNDERTAKEN:

The works must generally comply with the following to minimise any negative effect of the maintenance activity:

- Alien clearing must be done annually in the dry season.
- No chemical controls will be permitted inside of the watercourse or on the banks thereof.
- Alien vegetation must be removed by physical action, e.g., uprooting, felling, slashing, cutting, ringbarking, or bark stripping.
- Access to the work area must be directly from existing roads.
- Equipment and material required for the repairs need to be stored away from the watercourse.
- Machinery used must not cause hydro-carbon pollution (leaking parts, refuelling).

- If any spillage and resultant pollution has or is about to occur, the flow of the watercourse must be blocked by the establishment of a sandbag barrier and the spillage contained.
- Removed alien vegetation must be removed from site to the Municipality's organic disposal site.
- The watercourse must not be deepened.
- Limit the disturbance to the bed of the watercourse.
- All surfaces susceptible to erosion must be protected by cladding with biodegradable material and topsoil with herbs, grass and a seedbed to create a suitable groundcover.
- Damaged banks and work areas must be appropriately compacted and landscaped.

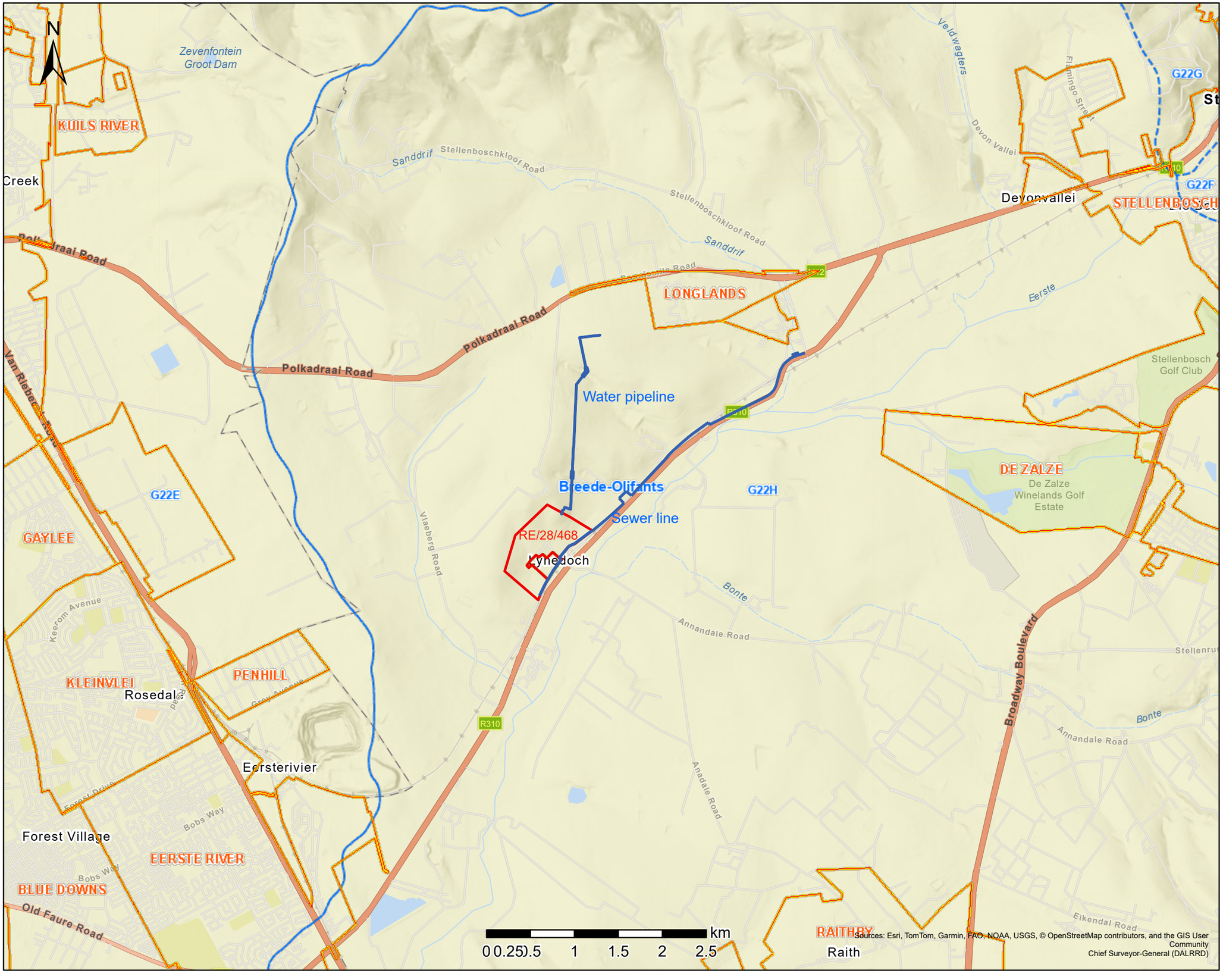
On completion of the maintenance action, the condition of the site should be similar to the pre-damaged state, i.e., the shape of the watercourse should be similar or in a state which is improved to manage future damage.

Note: please attach extra pages if more space is required

Responsible person: .....

ANNEXURE I: Locality map

Welmoed Village external services location



Legend

- Allotment Township
- Water Management Areas (2023)
- Quaternary Catchments

Map Center:	Lon: 18°46'34.7"E Lat: 33°58'28.8"S
Scale:	1:50,000
Date created:	2025/11/28

Western Cape Government
FOR YOU

ANNEXURE J: Master plan reports

Infrastructure planning

28 March 2024

UDS Africa
9 Electron Street
Techno Park
STELLENBOSCH
7600

Attention: Mr Cobus Louw

Dear Sir,

DEVELOPMENT OF PORTION 28 OF FARM 468 (WELMOED DEVELOPMENT), STELLENBOSCH: CAPACITY ANALYSIS OF THE BULK WATER & SEWER SERVICES

This is an update of the bulk water and sewer capacity investigation report performed for development on portion 28 of Farm 468, dated 25 July 2023. In this updated report phasing for the different development areas within the larger development node was included in order to comment on the phasing of the proposed infrastructure upgrades.

Your request for GLS Consulting to investigate and comment on the bulk water supply and sewer discharge of the proposed development (mainly residential development of portion 28 of Farm 468, Stellenbosch), refers.

This document should inter alia be read in conjunction with the Water Master Plan (performed for the Stellenbosch Municipality) dated June 2023 and the Sewer Master Plan dated June 2023.

Future development areas V1.1 to V1.9, which include the proposed development area, were conceptually taken into consideration for the June 2023 master plans for the water and sewer networks.

1. WATER DISTRIBUTION SYSTEM

1.1 *Distribution zone*

Portion 28 of Farm 468 is located on the western side of the Baden Powell Drive (R310 Main Road) adjacent to the existing Lynedoch Eco Village. The existing Lynedoch development is supplied with bulk water from the Polkadraai rural water supply scheme, with alternative supply possible from the Faure rural water supply scheme.

The master planning indicated that the development area below the 60 m contour on portion 28 of Farm 468 should be accommodated in the existing Faure water supply scheme. The connection to the existing system should be done on the 160 mm diameter pipe on the corner of the Baden Powell Drive and Annandale Road, as shown on Figure 1 attached. This will serve Phase 1 to Phase 13 of the larger development area.

GLS Consulting (Pty) Ltd
T +27 21 880 0388
Stellenpark, Block D North, Cnr of R44 and School Rd, Jamestown, Stellenbosch, 7600, ZA | PO Box 814, Stellenbosch, 7599, ZA
Reg no: 2007/003039/07
www.gls.co.za

Directors: Flip du Plessis, Tsolane Mokoena

Water pressure from the Faure system is insufficient to service the higher lying areas of portion 28 of Farm 468 (areas above the 60 m contour) and it is proposed in the master planning that these areas are supplied with water directly from the recently constructed Skilpadvlei reservoir, located to the north of the proposed development, as shown on Figure 2 attached. This connection will serve Phase 14 of the development.

The development is situated inside the water priority area.

1.2 *Water demand*

The total annual average daily demand (AADD) and fire flows for the proposed development were calculated as follows:

Potion 28 of Farm 468 [(1), (2)]:

• 355 Medium density residential units (40 units/ha) @ 450 L/d/unit		=	159,8 kL/d
• 515 High density residential units (80 units/ha) @ 300 L/d/unit		=	154,5 kL/d
• 14 Allotment Villa units @ 2,0 kL/d/unit		=	28,0 kL/d
• 1,78 ha School area @ 12,0 kL/d/ha		=	21,4 kL/d
• 0,5 ha Business/commercial area @ 20,8 kL/d/ha		=	10,4 kL/d
• 0,18 ha Clubhouse facility area @ 12,0 kL/d/ha		=	2,2 kL/d
	Total	=	376,3 kL/d

- Fire flow criteria (Moderate risk) = 25 L/s @ 10 m

(1) As per Table J.2 and J.4 from Section J – Water Supply of "The Neighbourhood Planning and Design Guide" (so called "Red book").

(2) The total water demand of 376,3 kL/d for portion 28 of Farm 468 can be apportioned 354,3 kL/d for the lower lying areas supplied from the Faure system and 22,0 kL/d for the higher lying areas supplied from the Skilpadvlei reservoir in the Polkadraai system.

1.3 Present situation

1.3.1 Network capacity

The existing pipes of the Polkadraai system in the Baden Powell Drive have insufficient spare capacity to accommodate the proposed development. It is proposed that the development is supplied with water from the Faure system with a connection to the existing 160 mm diameter pipe on the corner of Baden Powell Drive and Annandale Road.

The Faure system is supplied with water from the City of Cape Town's Faure reservoir with a Top Water Level (TWL) of 110 m above mean sea level (m a.s.l.) and can only supply sufficient water pressure to development on portion 28 of Farm 468 below the 60 to 70 m contour (Phase 1 to Phase 13).

It is proposed that the development area above the 60 to 70 m contour level (Phase 14) be supplied with water from the newly constructed Skilpadvlei reservoir in the Polkadraai system.

The Faure system has sufficient spare capacity to accommodate the proposed Phases 1 to 13 of the development area below the 60 to 70 m contour level.

A small section of 160 mm diameter pipeline between the proposed connection point for the development and the existing 200 mm diameter pipeline that are located adjacent to the Annandale Road, on the eastern side of the Eerste River, will however experience a flow velocity of more than 1.2 m/s during peak demand conditions. This is not a concern, but in order to reinforce the total network it can be considered to upgrade this pipeline to a 200 mm diameter pipe in future.

A new dedicated supply pipeline should be constructed from the Skilpadvlei reservoir to the higher lying Phase 14 erven of portion 28 of Farm 468. The TWL of the Skilpadvlei reservoir is 168 m a.s.l. and a pressure reducing valve (PRV) should be constructed on this pipeline to reduce water pressure at the development.

The following main internal pipes will be required for the development:

Potion 28 of Farm 468 (area supplied from Polkadraai system)

- SPW3.3 : 260 m x 200 mm Ø internal network pipe
- SPW3.4 : 150 m x 200 mm Ø internal network pipe [(1)]

Potion 28 of Farm 468 (area supplied from Faure system)

- SFW1.1 : 280 m x 250 mm Ø internal network pipe and required to connect to existing Faure system.
- SFW1.2 : 1 550 m x 200 mm Ø internal ring feed for the development

[(1)] Internal pipe SPW3.4 is an emergency connection between the Polkadraai and Faure systems to improve redundancy of the system.

1.3.2 Reservoir capacity

The criteria for total reservoir volume used in the Stellenbosch Water Master Plan is 48 hours of the AADD (of the reservoir supply zone). There is sufficient spare capacity available at the existing Skilpadvlei and Faure reservoirs in order to accommodate the proposed development in the existing Polkadraai and Faure water systems.

1.4 *Implementation of the master plan*

The following master plan item are required to supply the higher lying erven of portion 28 of Farm 468 with water from the existing Skilpadvlei reservoir:

Network upgrade (Polkadraai system)

• SPW3.1	:	2 095 m x 200 mm Ø new supply pipe		R	4 214 000 *
• SPW3.2	:	New PRV to regulate water pressure		R	314 000 *
			Sub-total	R	4 528 000 *

The following master plan item is recommended to be implemented in order to improve network conveyance and fire flow to the development from the Faure system:

Network upgrade (Faure system)

• SFW1.5	:	310 m x 200 mm Ø replace existing 160 mm Ø pipe [(2)]	R	1 062 000 *

(* Including P & G, Contingencies and Fees, but excluding VAT - Year 2022/23 Rand Value. This is a rough estimate, which does not include major unforeseen costs).

Take note that the routes of the proposed pipelines and location of the proposed PRV are schematically shown on Figures 1 & 2 attached, but have to be finalised subsequent to detailed pipeline route and PRV position investigations.

[(2)] Master plan pipe SFW1.5 is not a minimum requirement in order to accommodate the proposed development in the existing water system.

2. SEWER NETWORK

2.1 *Drainage area*

There are no sewer services in the vicinity of the proposed development. The nearest bulk infrastructure is the recently constructed Blaauwklippen pumping system to the north of the development area, which discharges at the Stellenbosch Wastewater Treatment Plant (WWTP).

The proposed development is located inside the sewer priority area.

2.2 *Sewer flow*

The proposed development was taken into consideration for the June 2023 master plan for the sewer network.

The peak day dry weather flow (PDDWF) for the proposed development area is calculated as 263,4 kL/d.

2.3 Present situation

It is proposed that sewage from the development gravitates towards the lowest point of portion 28 of Farm 468, from where sewage should be pumped to the existing Blaauwklippen pumping station. There is sufficient capacity in the existing Blaauwklippen pumping system to accommodate the proposed development.

The following internal outfall sewers are proposed in order to accommodate the sewer flows from the respective smaller development nodes on portion 28 of Farm 468:

Internal network:

- SSS5.5 : 560 m x 160 mm Ø internal outfall sewer
- SSS5.6 : 400 m x 200 mm Ø internal outfall sewer
- SSS5.7 : 120 m x 160 mm Ø internal outfall sewer
- SSS5.8 : 250 m x 160 mm Ø internal outfall sewer
- SSS5.9 : 390 m x 160 mm Ø internal outfall sewer

2.4 *Implementation of the master plan*

The following master plan items are required to pump sewage from the proposed development to the existing Blaauwklippen bulk pumping station:

Network upgrade

• SSS5.1	:	4 100 m x 160 mm Ø new rising main	R 6 985 000 *
• SSS5.2	:	New Welmoed sewer pumping station (capacity = 12 L/s)	R 3 304 000 *
• SSS4.1	:	1 060 m x 315 mm Ø new bulk sewer (Stellenbosch Municipality is in the process to implement this item; currently in tender phase for construction)	Cost not included
		Total	R 10 289 000 *

(* Including P & G, Contingencies and Fees, but excluding VAT - Year 2022/23 Rand Value. This is a rough estimate, which does not include major unforeseen costs).

Take note that the routes of the proposed pipelines and location of the proposed pumping station are schematically shown on Figures 3 & 4 attached, but have to be finalised subsequent to detailed pipeline route and pumping station position investigations.

3. CONCLUSION

The developer of portion 28 of Farm 468 (Welmoed development) in Stellenbosch may be liable for the payment of a Development Contribution (as calculated by Stellenbosch Municipality) for bulk water and sewer infrastructure as per Council Policy.

The development of Phase 1 to Phase 13 below the 60 m contour line can be accommodated within the existing Faure rural water system without any upgrades required.

The development of Phase 14 on portion 28 of Farm 468 above the 60 m contour line should be supplied with water directly from the Skilpadvlei reservoir in the Polkadraai system. Master plan item SPW3.1 will be required to supply the development with bulk water from the Skilpadvlei reservoir and master plan item SPW3.2 will be required to manage static pressures at the development.

There are no sewer services in the vicinity of the proposed development and master plan items SSS4.1, SSS3.1 & SSS3.2 will be required to pump sewage from the proposed development area to the existing Blaauwklippen bulk sewer pumping station, located roughly 5.0 km to the north east of the proposed development.

The existing Blaauwklippen pumping station has sufficient spare capacity to accommodate the proposed development.

We trust you find this of value.

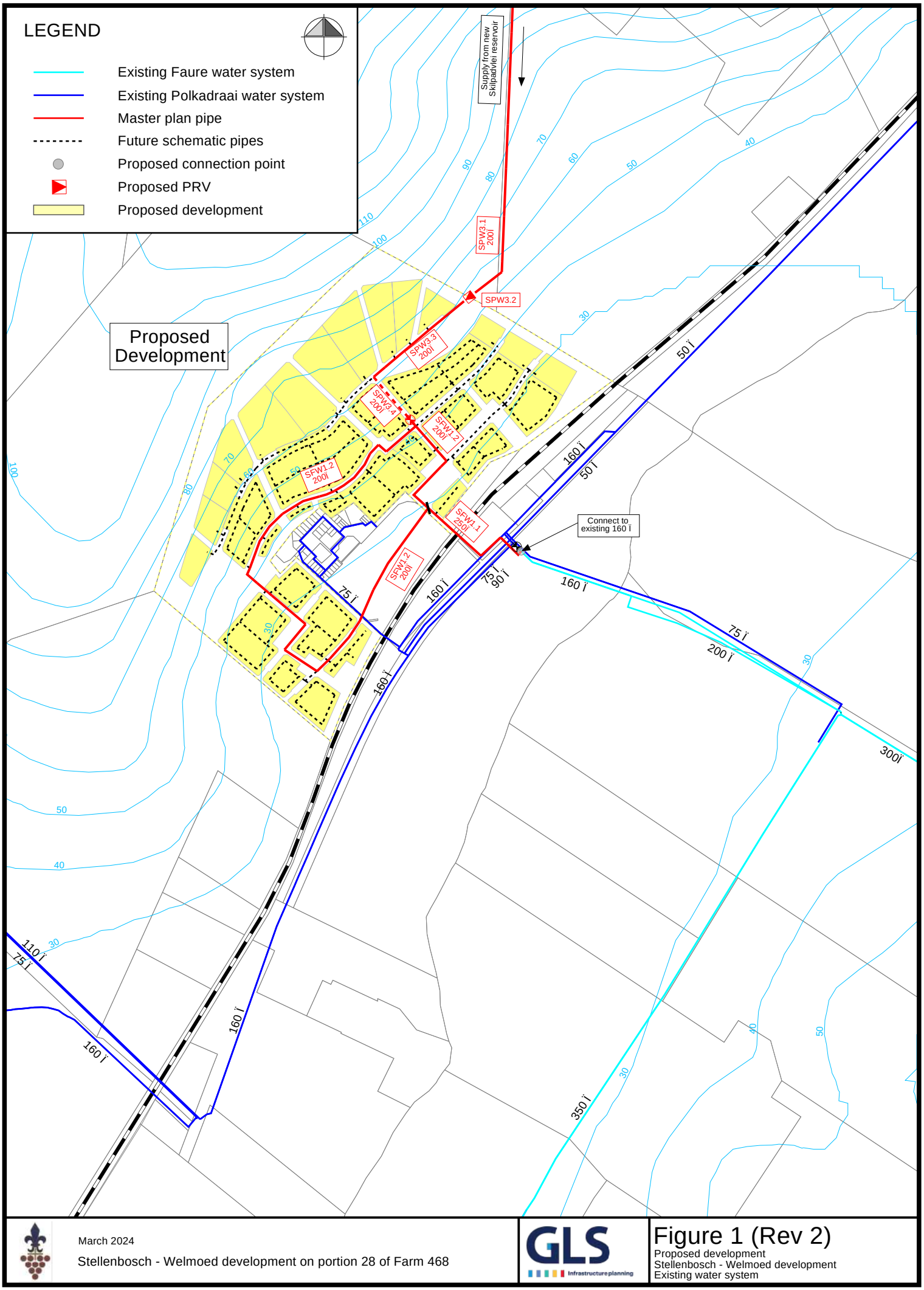
Yours sincerely,

GLS CONSULTING (PTY) LTD
REG. NO.: 2007/003039/07

_____
Per: PC DU PLESSIS

cc. The Director
Directorate: Infrastructure Services
Stellenbosch Municipality
P. O. Box 17
STELLENBOSCH
7599

Attention: Mr Paul Joubert



March 2024

Stellenbosch - Welmoed development on portion 28 of Farm 468

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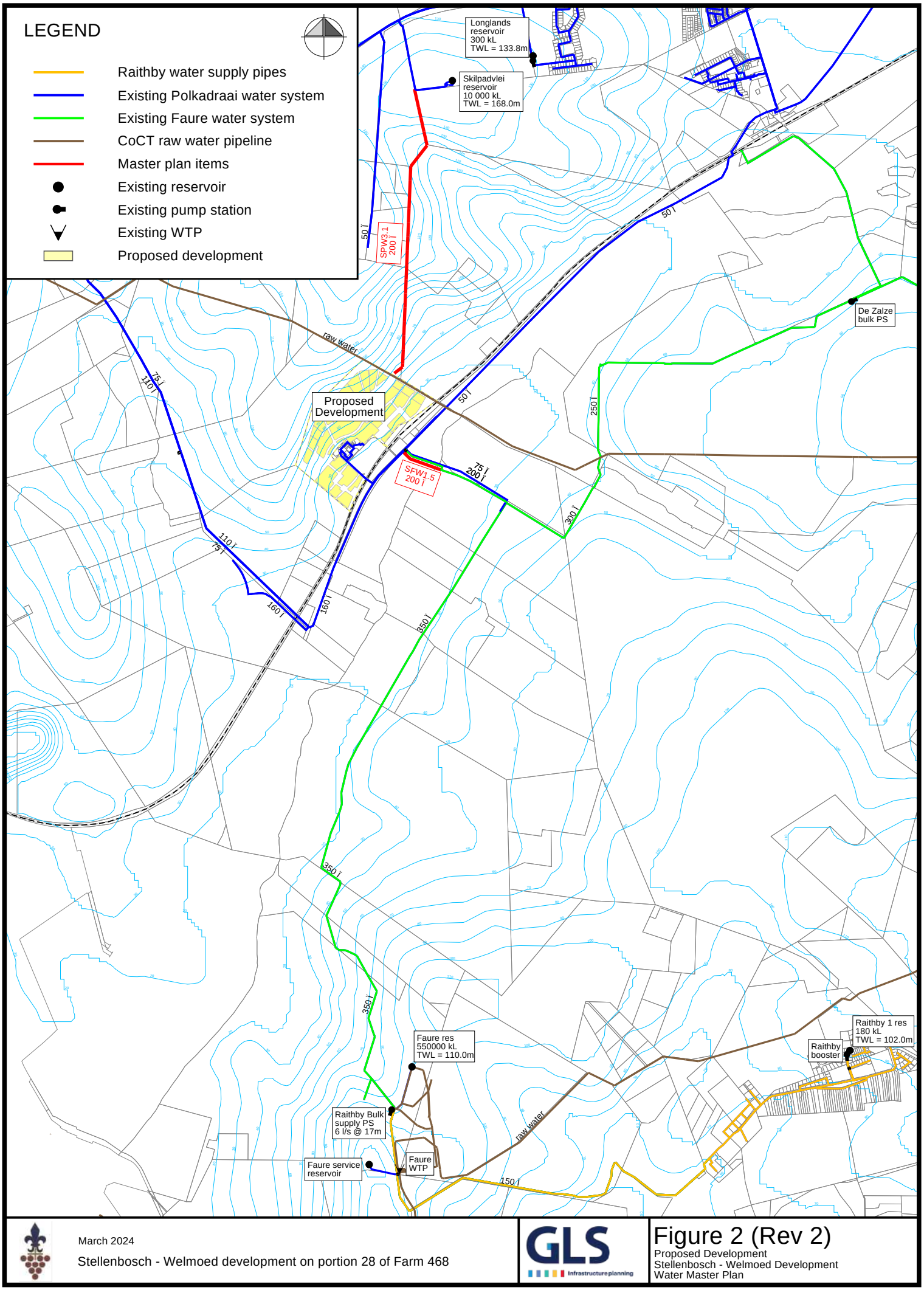
Figure 1 (Rev 2)

Proposed development
Stellenbosch - Welmoed development
Existing water system



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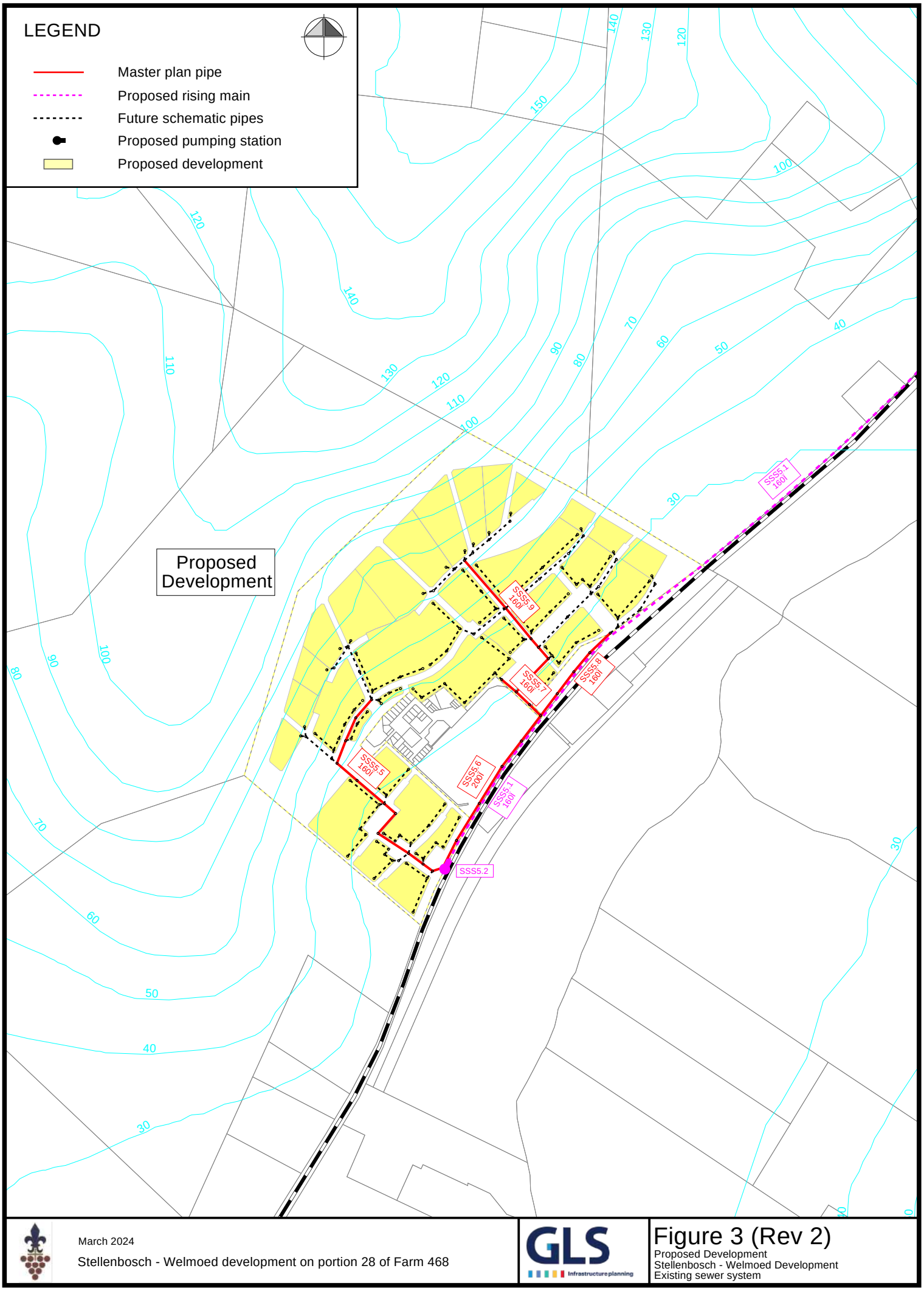
Stellenbosch - Welmoed development on portion 28 of Farm 468

GLS Infrastructure planning

Figure 2 (Rev 2)

Proposed Development
Stellenbosch - Welmoed Development
Water Master Plan



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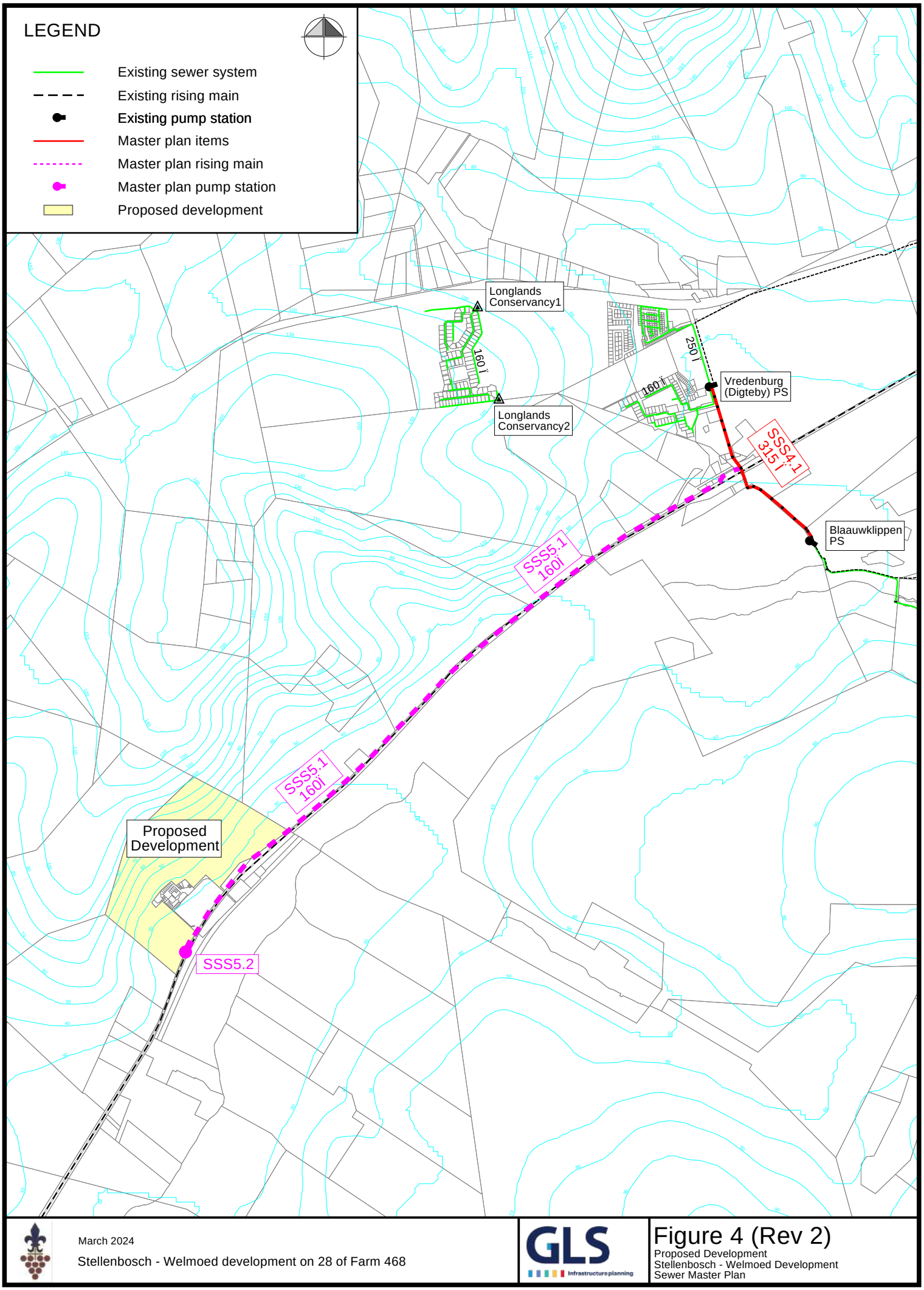
Stellenbosch - Welmoed development on portion 28 of Farm 468

GLS Infrastructure planning

Figure 3 (Rev 2)

Proposed Development
Stellenbosch - Welmoed Development
Existing sewer system



March 2024

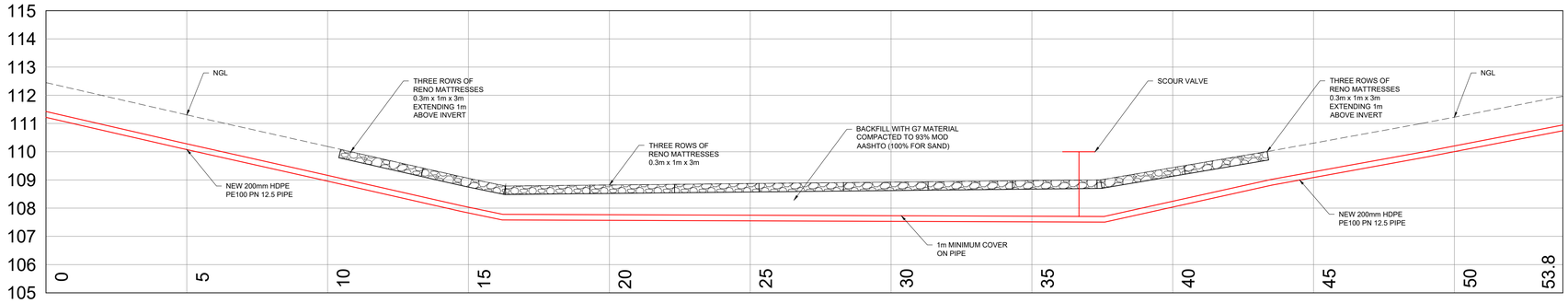
Stellenbosch - Welmoed development on 28 of Farm 468

GLS Infrastructure planning

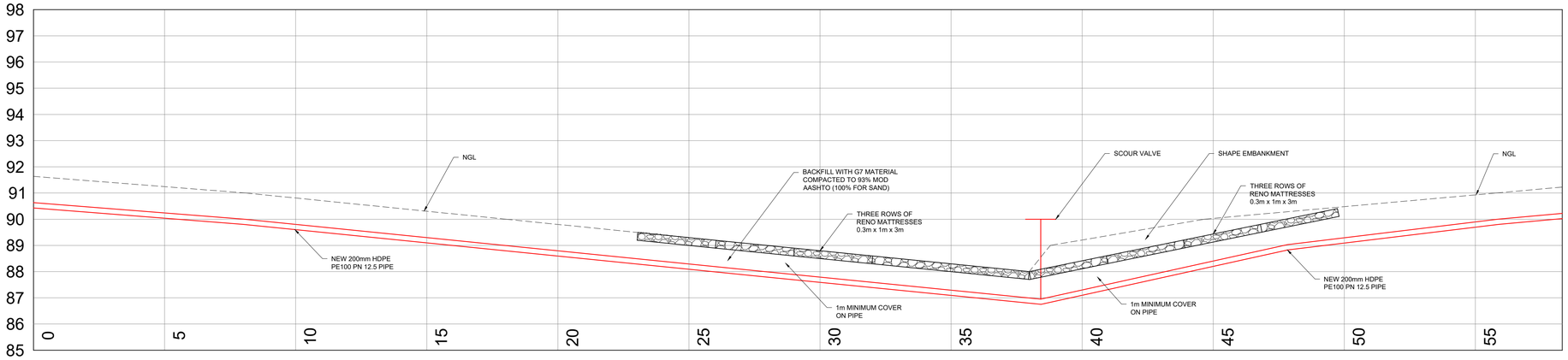
Figure 4 (Rev 2)

Proposed Development
Stellenbosch - Welmoed Development
Sewer Master Plan

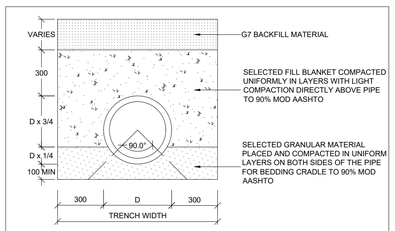
ANNEXURE K: Engineering design



CROSSING - SITE 1 (CLEAN STREAM)

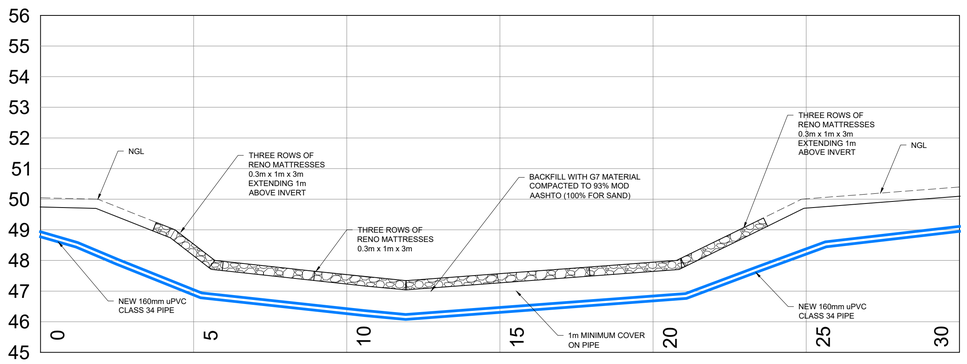


CROSSING - SITE 2 (LANDFILL STREAM)



DETAIL FOR BEDDING OF PIPE

SCALE 1:20



CROSSING - SEWER

0 10 20 30 40 50 90

Original scale in mm

NOTES

Amend.	Date	Description

11 Electron Street
Techno Park
Stellenbosch
7600

PO Box 50487
V&A Waterfront
8002

T +27 (0)76 211 9892
info@udsafrica.co.za

Surveyed	K.CONRADIE	Engineer	
		Signed	
Designed	RS	Name	Ruaan Slebrits
Drawn	RS	Pr. Eng no	2019300488
Checked		Date:	18 Nov 2026
Name	JvN	Client	
Signed		Signed	
		Date	

Client

17 Catherine Road
Shere Agricultural Holdings
Pretoria East
0081

Tel: 012 - 809 0262

UNIQON DEVELOPERS

Project

WELMOED DEVELOPMENT

Plan Description

STREAM CROSSING DETAILS

Scale

1: 100 (A1)

Date

NOVEMBER 2025

Plan number

UDS629/C/02

Amendment