Proposed Residential and Mixed-Use Development on Portion 11 of Farm No. 1426, Paarl ('Avec la Terre')

FINAL SCOPING REPORT

March 2023

In terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2014 (as amended).

Prepared for:
Future Megawatt (Pty) Ltd.

Departmental Reference:
16/3/3/2/B3/28/1006/23

DJEC Project Number:
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REPORT DETAILS

Project Title:	Proposed Residential and Mixed-Use Development on Portion 11 of Farm No. 1426, Paarl ('Avec la Terre')
Process:	Scoping and Environmental Impact Assessment (EIA) Process
Report Type:	Final Scoping Report
Report Date:	14 March 2023
Applicant:	**Future Megawatt (Pty) Ltd.** c/o Oosterland and Driebergen Street Unit H, Dal Josafat, PAARL, 7620
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DEA&DP References:	16/3/3/2/B3/28/1006/23
DJEC Reference:	2022/29

Authored by:	**Adél Groenewald**
Qualifications:	B.Sc. Geography [UFS]
Experience:	Adél is a registered EAP with EAPASA and has been undertaking Environmental Impact Assessments for developments within the Western Cape, Free State, Northern Cape, and Limpopo since 2013. Refer to **Appendix H5** for the Curriculum Vitae of the EAP.
Professional Registrations & Affiliations:	**Reg. EAP (EAPASA)** Registration number: 2021/3811 **Member of IAIAsa** Membership number: 6925

Reviewed by:	**Doug Jeffery**
Qualifications:	BSc; BSc (Hons); MSc Botany [UCT].
Experience:	Doug has over 30 years of experience in undertaking Environmental Assessments.
Professional Registrations & Affiliations:	**Reg. EAP (EAPASA)** Registered number: 2019/1746 **Certified Professional Natural Scientist (Pri.Sci.Nat.) with SACNASP** SACNASP registration number: 159/90 **Member of IAIAsa** Membership number: 6925

PURPOSE OF THE SCOPING REPORT

The purpose of this Scoping Report is to describe the environment to be affected, the proposed project, to present the site constraints identified by the various specialists during their initial site assessments, to identify the potential impacts and provide a Plan of Study for the Environmental Impact Assessment (EIA) process of this development. This Scoping Report will be made available for comment to all potential interested and affected parties (I&APs) and any Organ of the State having jurisdiction in respect of any aspect of the proposed activities.

ACRONYMS

CBA	Critical Biodiversity Areas
DEA	Department of Environmental Affairs (now DFFE)
DEA&DP	Western Cape Department of Environmental Affairs and Development Planning
DFFE	Department of Environment, Forestry and Fisheries (formerly known as DEA)
DMRE	Department of Mineral Resources and Energy
DWS	Department of Water and Sanitation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
ESA	Ecological Support Areas
FEPA	National Freshwater Ecosystem Priority Areas
GN	Government Notice
HWC	Heritage Western Cape
I&APs	Interested and Affected Parties
MPRDA	Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)
NBA	National Spatial Biodiversity Assessment
NEM: AQA	National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)
NEM: BA	National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
NEM: WA	National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
NID	Notice of Intent to Develop as required by Heritage Western Cape
NOI	Notice of Intent to Submit an Application for Environmental Authorisation
NWA	National Water Act, 1998 (Act No. 36 of 1998)
PPP	Public Participation Process
SANBI	South Africa National Biodiversity Institute
WCBSP	Western Cape Biodiversity Spatial Plan
WWTP	Wastewater Treatment Plant

REQUIREMENTS FOR A SCOPING REPORT

The table below lists the minimal contents of a Scoping Report in terms of Appendix 2 of the EIA Regulations, 2014 (as amended) and provides a reference on where to find said information in this report.

Contents of a Scoping Report	Section / Appendix
a) Details of – i. The EAP who prepared the report; and ii. The expertise of the EAP, including a curriculum vitae;	**Page 2 & Appendix H5**
b) The location of the activity, including – i. The 21-digit Surveyor General code of each cadastral land parcel; ii. Where available, the physical address and farm name; iii. Where the required information in items (i) and (ii) is not available, the coordinates of the boundary of the property or properties;	**Section A1**
c) A plan which locates the proposed activity or activities applied for at an appropriate scale, or, if it is – i. A linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken; or ii. On land where the property has not been defined, the coordinates within which the activity is to be undertaken;	**Appendix D2**
d) A description of the scope of the proposed activity, including – i. All listed and specified activities triggered; ii. A description of the activities to be undertaken, including associated structures and infrastructure	**Section B & Section C 2.3.1.**
e) A description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process;	**Section C & Section D**
f) A motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location;	**Section H**
g) full description of the process followed to reach the proposed preferred activity, site and location of development footprint within the site, including – i. details of all the alternatives considered;	**Section F & Section G**
ii. details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs;	**Section I**
iii. a summary of the issues raised by interest and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them;	**Section I 2. & 3.**
iv. the environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;	**Section E**
v. the impacts and risks which have informed the identification of each alternative, including the nature, significance,	**Section J 3.**

Contents of a Scoping Report		Section / Appendix
	consequence, extent, duration and probability of such identified impacts, including the degree to which these impacts – aa) can be reversed; bb) may cause irreplaceable loss of resources; and cc) can be avoided, managed or mitigated;	**Table 9 & Table 10** **Appendix H4**
vi.	the methodology used in identifying and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives;	**Appendix H3**
vii.	positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;	**Section J3** **Table 9 & Table 10** **Appendix H4**
viii.	the possible mitigation measures that could be applied and level of residual risk;	**Section J3** **Table 9 & Table 10** **Appendix H4**
ix.	the outcome of the site selection matrix;	**Section G 8.**
x.	if no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such; and	**N/A**
xi.	a concluding statement indicating the preferred alternatives, including preferred location of the activity;	**Section G 9.**
h)	a plan of study for undertaking the EIA process to be undertaken, including –	**Section K**
i.	a description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity;	**Section K 1.**
ii.	a description of the aspects to assessed as part of the EIA process;	**Section K 2.**
iii.	aspects to be assessed by specialists;	**Section K 3.**
iv.	a description of the proposed method of assessing the environmental aspects, including aspects to be assessed by specialists;	**Section K 4. &** **Section K 5.**
v.	a description of the proposed method of assessing duration and significance;	**Section K 5. &** **Appendix H3**
vi.	an indication of the stages at which the competent authority will be consulted;	**Section K 6.**
vii.	particulars of the public participation process that will be conducted during the EIA process; and	**Section K 7.**
viii.	a description of the tasks that will be undertaken as part of the EIA process;	**Section K 8.**

Contents of a Scoping Report	Section / Appendix
ix. identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored	**Section K 9.**
i) an undertaking under oath or affirmation by the EAP in relation to – i. the correctness of the information provided in the report; ii. the inclusion of comments and inputs from stakeholders and interested and affected parties; and iii. any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested or affected parties;	**Appendix I2**
j) an undertaking under oath or affirmation by the EAP in relation to the level of agreement between the EAP and interested and affected parties on the plan of study for undertaking the EIA;	**Appendix I2**
k) where applicable, any specific information required by the competent authority; and	**N/A**
l) any other matter required in terms of section 24(4)(a) and (b) of the Act.	**N/A**

EXECUTIVE SUMMARY

1. INTRODUCTION

Doug Jeffery Environmental Consultants (Pty) Ltd., was appointed by the Applicant*, Future Megawatt (Pty) Ltd*., as the independent Environmental Assessment Practitioner (EAP) to apply for Environmental Authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) as amended ("NEMA") and the Environmental Impact Assessment (EIA) Regulations, 2014 (as amended) for the proposed Residential and Mixed-Use Development on Portion 11 of Farm No. 1426, Paarl. The proposed development will hereafter be referred to as 'Avec la Terre'.

1.1. Site Location

Portion 11 of Farm No. 1426, Paarl (the site), is situated south of Paarl in the Cape Winelands region and falls within the jurisdiction of Drakenstein Local Municipality, of the Western Cape.

The site is located at the intersection of the R301 (Wemmershoek Road) and Schuurmansfontein Road approximately 8km south of the N1 highway (refer to **Appendix A**), near the existing Pearl Valley Golf Estate. The R301, linking with Paarl to the north and Wemmershoek to the south, runs along the eastern boundary of the site. Schuurmansfontein Road passes along the northern boundary of the site.

Refer to the Locality Maps attached as **Appendix A**.

2. DESCRIPTION OF THE PROPOSED DEVELOPMENT

2.1. Proposed Land Use and Zoning

This proposal is for the rezoning and subdivision of Portion 11 of Farm No. 1426, Paarl from Agriculture Zone to Subdivisional Area comprising 236 portions to create separate land units for residential, mixed-use, open space, private road and utility purposes. Refer to the Subdivision, Rezoning and Phasing Plan attached as **Appendix B1**.

The intention is to apply for Environmental Authorisation for the land use zonings and associated land uses to allow flexibility in the implementation of the approved rights for the residential and mixed-use components. Although the proposed land use rights for the residential component of the proposed development are fixed in terms of the permitted land uses and the total number of units (216 single residential units), the proposed mixed-use site requires more flexibility as the site development plan and land uses have not been finalised and will be informed by future demand.

The detailed site development plans will be submitted for approval to the relevant authorities during the detailed design phase of this project.

The main vehicular access from Schuurmansfontein Road to the residential estate will be access-controlled by means of a security gates/booms and manned security. A secondary vehicular access on Schuurmanfontein Road will provide access to the proposed mixed-use component only.

2.2. Proposed Services

The Service Capacity Confirmation Letters will be provided in the EIA phase.

2.2.1. Water

The approximate Annual Average Daily Demand (AADD) and fire flows for the proposed development was calculated as approximately 256.08kℓ/day.

According to the GLS Report the proposed development falls withing the Pearl Valley reservoir water distribution zone.

Bulk Water Infrastructure upgrades will be required which has been described in detail in **Section B.3.** of the Final Scoping Report.

2.2.2. Sanitation

The Average Annual Daily Flow (AADF) for the proposed development was calculated as approximately 256.08kℓ/day.

The development falls within the existing Paarl Gravity drainage area. According to the GLS Report there is sufficient capacity in the existing Paarl gravity sewer reticulation system downstream of the proposed connection point to accommodate the proposed development.

New Bulk Sewer Infrastructure will however be required to connect the proposed development to the existing Paarl bulk sewer on the southern side of the N1 National Road and the western side of the Berg River. This infrastructure is not yet in place and therefor a Wastewater Treatment Plant is proposed for this development.

Proposed Wastewater Treatment Plant (WWTP):

Sewerage from the proposed development will be treated by means of an on-site Wastewater Treatment Plant (WWTP). Effluent will be treated to the Special Limit Standards and could be stored and utilized for the irrigation of the open spaces and gardens of the proposed development.

The treated effluent will be discharged into the retention pond and be used for irrigation purposes across the proposed development site. During winter months it is possible for overflow of the retention pond. The quality of water is confirmed as suitable to overflow into the stormwater system since the water will be treated to Special Limit Standards.

2.2.3. Electricity

The area is currently supplied with electricity by Drakenstein Municipality. The total estimated load for the proposed development is approximately 2326kVA. According to the Drakenstein Municipality there is sufficient electrical supply-capacity available from the step-down substation in the area to service the proposed development.

2.2.4. Solid waste

The solid waste will be collected by an appropriate contractor appointed by the Body Corporate and taken to the refuse rooms provided within the proposed development site. Thereafter, the solid waste will be collected by the Municipality.

3. POLICY AND LEGISLATIVE CONTEXT

The legislation relevant to this Final Scoping Report is briefly outlined below. These environmental requirements are not intended to be definitive or exhaustive but serve to highlight key environmental legislation and responsibilities only.

There are several Acts which form part of a suite of legislation called Specific Environmental Management Acts (SEMAs) that fall under NEMA. The following SEMAs are also relevant to this application and will regulate the proposed development:

- The Constitution of South Africa Act, 1996 (Act No. 108 of 1996)
- The National Environmental Management Act, 1998 (Act No. 107 of 1998)
- The Environmental Impact Assessment Regulations, 2014 (as amended)
- The National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)
- The National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
- The National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
- The National Heritage Resources Act, 1999 (Act No. 25 of 1999), and
- The National Water Act, 1998 (Act No. 36 of 1998).

3.1. Listed Activities Triggered and Applied For

The listed activities associated with the proposed development are listed in the following tables.

Listed Activity in terms of Listing Notice 1 [GN No. R. 327].

Activity No.	Description of the Listed Activity	Description of the portion of the development that relates to the applicable listed activity as per the project description.
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.	The proposal will require the infilling of more than 10 cubic metres of material into a watercourse (wetlands) in order to level the site for the development.
28	Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development: (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or institutional purposes.	The proposal entails the rezoning and subdivision of agricultural land to establish a residential estate with a commercial component. The proposed development site is located outside an urban area and the total land to be developed is approximately 27.4817 hectares.

Listed Activity in terms of Listing Notice 2 [GN No. R. 325].

Activity No.	Description of the Listed Activity	Description of the portion of the development that relates to the applicable listed activity as per the project description.
15	The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for- (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	The proposal will require the clearance of an area of more than 20 hectares of indigenous vegetation.

Listed Activity in terms of Listing Notice 3 [GN No. R. 324].

Activity No.	Description of the Listed Activity	Description of the portion of the development that relates to the applicable listed activity as per the project description.
4	The development of a road wider than 4 metres with a reserve less than 13.5 metres. **i. Western Cape** i. Areas zoned for use as public open space or equivalent zoning; ii. Areas outside urban areas; (aa) Areas containing indigenous vegetation; (bb) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or iii. Inside urban areas: (aa) Areas zoned for conservation use; or (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority.	The proposal will entail the development of internal roads with a reserve less than 13.5 metres outside urban areas containing indigenous vegetation.
12	The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. **i. Western Cape** i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the	The proposal will entail the clearance of an area of more than 300 square metres of indigenous vegetation, within an endangered ecosystem listed in terms of section 52 of the NEMBA.

Activity No.	Description of the Listed Activity	Description of the portion of the development that relates to the applicable listed activity as per the project description.
	NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; ii. Within critical biodiversity areas identified in bioregional plans; iii. Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas; iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning; or v. On land designated for protection or conservation purposes in an Environmental Management Framework adopted in the prescribed manner, or a Spatial Development Framework adopted by the MEC or Minister.	

*The listed activities triggered by the proposed development, as described above, have prompted the need for this **Scoping and EIA process** to be undertaken.*

4. PLANNING CONTEXT

The site is situated within the proclaimed Municipal urban edge and has therefore been demarcated by the Municipality for urban development.

4.1. Land Use Zoning

An application was submitted to the Drakenstein Municipality for the following in terms of the Drakenstein Municipality: Municipal Land Use Planning By-Law, 2015:

The rezoning of Portion 11 of the Farm 1426, Paarl from Agriculture Zone to Subdivisional Area, in terms of Section 15(2)(a) of the Drakenstein Municipality: Municipal Land Use Planning By-Law, 2015.

The subdivision of Portion 11 of the Farm 1426, Paarl into 236 portions in terms of Section 15(2)(d) of the Drakenstein Municipality: Municipal Land Use Planning By-Law, 2015, in accordance with the proposed Subdivision and Zoning Plan with plan number 22013-003, Rev 4, dated 2022-10-17, to create the following:

- 216 x portions zoned Conventional Housing Zone
- 1 x portion zoned Mixed-Use Zone
- 11 x portions zoned Open Space Zone

- 5 x portions zoned Transport Zone
- 3 x portions zoned Utility Zone

Council's consent to permit 'Utility Plants' on proposed Portion 233 and Portion 234 of the proposed subdivision of Portion 11 of the Farm 1426, Paarl, in terms of Section 15(2)(o) of the Drakenstein Municipality: Municipal Land Use Planning By-Law, 2015, to permit a temporary package plant and electrical substation, respectively.

According to the Spatial Focus Area (SFA) Map, the site is situated within the Municipal urban edge and is delineated for "Urban Infill". This includes all existing agricultural zoned properties along the R301, south of the site up to the Drakenstein Prison. This entire area is thus planned to accommodate urban development as part of this SFA's development framework.

The proposed development is thus deemed to be aligned with the Drakenstein Spatial Development Framework (SDF) for the following reasons:

- The site is situated within the Municipal urban edge and within an area delineated for Urban Infill where higher densities is promoted.
- The proposed development supports the SDF's proposal of creating a gateway at the R301/Schuurmansfontein Road intersection. An opportunity is created to enhance the sense of place at this gateway location (with new buildings and landscaping).
- The proposal will contribute to the provision of a variety of housing typologies and commercial opportunities.
- It will assist in creating an efficient urban structure, with higher-density mixed-use development along the R301 corridor.
- The proposal supports corridor development along the R301.
- The proposed development will contribute towards much-needed infrastructure investment in the area.
- The site has low agricultural potential. The proposed development will therefore not result in the loss of high-potential agricultural land.
- The proposal will not affect the integrity of the nearby Mandela Prison House facility.
- The proposed development will not affect the surrounding rural landscape, specifically towards the east of the R301.

5. DESCRIPTION OF ENVIRONMENTAL ATTRIBUTES

5.1. Current Land Use of the Site

The site is currently mostly vacant. The site would have historically supported indigenous vegetation, however it has been completely transformed by farming and mining activities in the past.

The limited existing infrastructure on the property is the dwelling house and associated outbuildings in the south-eastern corner of the site. These structures currently derive access from an existing vehicular access from the R301.

5.2. Geology and Soil Features

The proposed development site is situated in between the Cape Granite Suite to the northwest and northeast and the Table Mountain Group (TMG) in the east. There are prominent fault sets in the TMG formations east of the study area as well as in the Moorreesburg formation, one of which intersects the southwestern corner of the proposed development site.

The proposed development site is underlain by a surficial sand cover (quaternary deposits) and deeper by greywacke and phyllite of the Moorreesburg Formation, in the Malmesbury Group. The fractured greywacke of the Moorreesburg Formation constitutes the local fractured bedrock aquifer. In the western lower lying portion of the study site weathered greywacke and phyllite outcrops are found.

5.3. Hydrogeology and Groundwater

According to the 1:500 000 scale groundwater map of Cape Town (3318) the proposed development site hosts a fractured aquifer (i.e., the bedrock constitutes an aquifer) with an average borehole yield of 0.1 to 0.5ℓ/s in the west and 2.0 to 5.0 ℓ/s in the east. The yields of known boreholes within a 1km radius of the proposed development site range between 2.5 and 8.5ℓ/s. This exceeds the estimated yield of the western aquifer in which all the known boreholes are located.

The Groundwater Map indicates the fractured aquifer has a water quality as indicated by electrical conductivity (EC) in the range of 0 – 70 mS/m which, in terms of domestic supply, is Class 0 (i.e., ideal). All known boreholes in the area as well as the samples collected during the hydrocensus fall within this range.

The shallow overlying perched primary aquifer is at risk of contamination. Most groundwater users utilise groundwater from the fractured rock aquifer and are protected by the clay layer/weathered zone.

5.4. Groundwater

Based on the analysis both the shallow groundwater as well as the groundwater originating from the deeper fractured rock aquifer is of good quality with a low mineral content. No major sources of faecal coliforms or chemical oxygen demand was observed on site.

5.5. Aquatic Features

The wetlands within the site are considered to be largely to seriously modified. They are largely artificial wetland areas which have formed as a result of modifications to the topography and flow through the site.

The wetlands are considered to be of low ecological importance and sensitivity. Only remnant and largely artificial wetland habitats remain on the site that does not support any aquatic biota of significance. They are also not sensitive to flow and water quality modification. The associated corridors are however important linking corridors along the subsurface flow paths that feed associated downstream terrestrial and wetland habitat.

The wetlands, due to their degraded condition and the modified surrounding landscape within the site, are able to offer very limited ecosystem goods and services.

5.6. Vegetation

The historical vegetation type that would have been present on Portion 11 of Farm 1426, Paarl, is Swartland Alluvium Fynbos which is classified as Endangered according to the 2018 VegMap1 and the NEM: BA Revised National List of Ecosystems that are Threatened and in Need of Protection (18 November 2022).

Dr Dave McDonald, the Botanical Specialist, undertook a site inspection in June 2022 and found that the site has been entirely transformed due to past agricultural activities, the invasion by exotic alien trees and the previous mining activities.

The Botanical Survey did not indicate any intact Swartland Alluvium Fynbos vegetation. The only indigenous plant species found were some fragmented stands of *Seriphium plumosum* (slangbos), *Willdenowia sulcata* (Sonkwasriet) and several mature *Leucadendron rubrum* (spinning top) shrubs. The area where these representatives of the former Fynbos plant community were found was invaded by alien *Acacia saligna* (Port Jackson Willow) and *Pinus radiata* (Monterey Pine). The grass, *Cynodon dactylon*, is indigenous but is extremely invasive on disturbed dry, sandy, sites, as was found on the site.

[1] South African National Biodiversity Institute (2006-2018). *The Vegetation Map of South Africa, Lesotho and Swaziland*, Mucina, L., Rutherford, M.C. and Powrie, L.W. (Editors), Online, http://bgis.sanbi.org/Projects/Detail/186, Version 2018.

Significant areas of the property were scraped bare of any vegetation during the previous sand-mining operations.

5.7. Socio-Economic Status

In 2021, the unemployment rate in Drakenstein (based on the narrow definition of unemployment) was 21%. Given the prevailing conditions over the past year as well as the seasonal nature of local employment in the agricultural sector as well as the narrow definition of the official definition it is estimated that a more realistic unemployment figure is closer to 27%.

5.8. Cultural and Heritage Aspects

According to the Drakenstein Heritage Survey Report (Winter, Jacobs, Baumann, & Attwell, 2012), the site is located within the Lower Berg River Valley Broad Landscape Character Zone.

Heritage Overlay Zones proposed by the Drakenstein Heritage Survey Report that surround the subject site are the Dwars and Berg River Corridors Heritage Overlay Zones (HOZ) and the Wemmershoek Slopes HOZ. However, Portion 11 of Farm 1426 itself does not fall within either of these Heritage Overlay Zones, and the properties located between these protected areas (including the site) are not considered to form part of a landscape of heritage significance.

According to the Drakenstein Mountain Slope policy, the subject site and surrounds are classified under Domain C in terms of its Landscape Character Areas. The site falls within the extents of the Wemmershoek Corridor Landscape Character Area (C2).

The subject site is located along the R301 Scenic Route (Route #24).

6. ENVIRONMENTAL CONSTRAINTS AND OPPORTUNITIES

6.1. Agricultural Constraints and Opportunities

Although natural conditions on the site would have been suitable for crop production under irrigation with a land capability of approximately 8 to 9, the site has been significantly disturbed and excavated to the extent that it no longer has any crop production potential.

A Site Sensitivity Verification and Agricultural Compliance Statement, that assesses the potential agricultural impacts associated with the proposed development, will be provided in the EIA phase.

6.2. Botanical Constraints and Opportunities

As mentioned, the site is completely transformed as a result of past agricultural and mining activities which has resulted in the invasion of alien vegetation. Therefore, site has no botanical constraints. The proposed development would have a Very Low impact on any natural vegetation.

A Site Sensitivity Verification and Terrestrial Biodiversity Compliance Statement, that assesses the potential Terrestrial Biodiversity impacts associated with the proposed development, will be provided in the EIA phase.

6.3. Aquatic Ecosystem Constraints and Opportunities

No significant wetland habitat occurs within the site that needs to be retained. There is, however, still evidence of the water pathways through the site. It is thus recommended that new wetland habitats be created within the water pathway which will be incorporated within the proposal.

The proposed pathways should link up with the culverts along Schuurmansfontein Road to feed through to the site towards the northern portion of the site. The approximate extent of wetland habitat that would need to be created is approximately 1-2 ha. The proposed waterways could be combined with stormwater management areas, provided the created wetland habitat meets the required area as

mitigation for no net loss of wetland habitat. There would also be the potential to retain a portion of the large dam/excavated area and create a wetland habitat within it.

The recommendation regarding an aquatic ecological corridor and wetland habitat has been taken into consideration in the proposed layout (see **Appendix B1**), where a 25m wide corridor orientated north/south and linked to the upstream and downstream passage of sub-surface flow is allowed for in the layout. A portion of the large dam currently within the site will be retained as an aesthetic feature and retention dam. In the north-western corner of the site, it is proposed to construct a stormwater pond.

A Wastewater Treatment Plant will also be placed in the north-western corner of the site to treat an estimated 280m^3/day of sewage to the Special Limit as per the Department of Water and Sanitation (DWS) General Notice 169 of 2013. The proposed process for the WWTW is the University of Cape Town (UCT) process for combined nitrogen and phosphorus removal with an ultrafiltration Membrane for particle separation. The treated effluent will be used to provide additional water to the created wetland corridor.

An Aquatic Biodiversity Impact Assessment that assesses the potential aquatic impacts associated with the proposed development will be provided in the EIA phase.

6.4. Biodiversity Conservation Importance

The WCBSP of 2017 has identified CBAs and ESAs which are deemed to be essential in terms of meeting habitat and species representation targets, and in terms of maintaining current levels of ecological connectivity across an already fragmented landscape.

Although the proposed development is not expected to affect any terrestrial biodiversity areas of conservation importance, a Site Sensitivity Verification and Terrestrial Biodiversity Compliance Statement will be provided in the EIA phase.

The WCBSP of 2017 has identified some aquatic CBAs within the site that are associated with the existing dam, as well as some scattered wetlands on the western side and northern boundary of the site. Much of the area surrounding the aquatic CBA is mapped as aquatic ESAs.

No significant wetland habitat occurs within the site that needs to be retained. There is, however, still evidence of the water pathways through the site. It is thus recommended that new wetland habitats be created within the water pathway.

An Aquatic Biodiversity Impact Assessment that assesses the potential aquatic impacts associated with the proposed development will be provided in the EIA phase.

6.5. Groundwater Constraints and Opportunities

The main possible groundwater contamination source relates to the irrigation with treated effluent from the effluent treatment plant as well as overflow from the retention ponds in periods of high surface runoff and low irrigation.

A Groundwater Impact Assessment that assesses the potential groundwater impacts associated with the proposed development will be provided in the EIA phase.

6.6. Socio-Economic Constraints and Opportunities

The socio-economic constraints and opportunities associated with the proposed development relate to the creation of employment opportunities during the construction and operational phases. This includes additional benefits for the local economy through the creation of new investment opportunities.

6.7. Visual Constraints and Opportunities

The visual constraints and opportunities associated with the proposed development includes:

- Potential intrusion on protected landscapes or scenic resources;

- Noticeable change in visual character of the area; and
- Establishes a new precedent for development in the area.

Key visual concerns are:

- Effect on Cultural landscapes and scenic resources, with specific reference to:
  - The effect on the rural sense of place of the Cape Winelands Cultural Landscape;
  - The effect on the visual amenity of the Scenic route; and
  - Effect on local heritage resources and other protected resources.
- Effect on sensitive receptors with specific reference to:
  - Commuters on the R301 Scenic route.
  - Local sensitive receptors.

A Visual Impact Assessment that assesses the potential visual impacts associated with the proposed development will be provided in the EIA phase.

6.8. Roads & Transport Constraints and Opportunities

The constraints and opportunities on the existing roads and transportation infrastructure associated with the proposed development was provided by the appointed Traffic Engineer, Mr Hugo Engelbrecht from *Innovation Transport Solutions* (ITS).

The proposed development is estimated to generate a total of 300 weekday a.m. peak hour- and 333 weekday p.m. peak hour vehicle trips respectively once the proposed development has been completed. The proposed development is expected to increase traffic volumes during the construction and operational phases.

Refer to the Traffic Impact Assessment (TIA) included as **Appendix F6** of this report.

Please note, the TIA is regarded as a Technical Report and not a Specialist Study / Assessment as defined in the EIA Regulations, 2014 (as amended).

6.9. Noise Constraints and Opportunities

Construction Phase Constraints

Construction Phase activities would include clearing of vegetation; mass earthworks; transportation of materials to site; installation of civil and electrical services; preparation and construction of roads; and construction of building structures.

The construction phase would be of a relatively short duration.

Operational Phase Constraints

Road Traffic Noise

Noise emanating from road traffic on the R301 would have a major noise impact on any residential units in the mixed-use area as well as along part of the land extending along the northern and southern site boundaries, west of the mixed-use area.

Noise from the Mixed-Use Area

Potential sources of noise from business/commercial buildings might be:

- Air conditioning and other mechanical services mounted exterior to buildings;
- Plant rooms containing stand-by electrical generator and other mechanical services.

Any such noise could potentially impact on residents in the mixed-use area; offices; the residential units to the west of the mixed-use area; as well as land beyond the development site boundaries.

Noise from Residential Units

The proposed 216 residential units will extend from west of the proposed mixed-use area towards the western site boundary. This would be typical of numerous suburbs throughout the country. Generally, the ambient sound levels in such suburbs are very low with no previous record of noise impact on adjacent districts.

Noise Emanating from the Wastewater Treatment Plant and Electrical Substation

The main source of noise from the wastewater treatment plant would be blowers inside an equipment room.

The electrical substation would comprise a miniature substation utilised by all municipalities and installed in all developments. Noise emitted from the substation could potentially impact on nearby residences.

A Noise Impact Assessment that assesses the potential noise impacts associated with the proposed development will be provided in the EIA phase.

7. IDENTIFICATION OF ALTERNATIVES

7.1. Property and Location/Site Alternatives

The site, Portion 11 of Farm No. 1426, Paarl, is the only site alternative considered for the EIA process. No property or site alternatives were considered and / or investigated since the proposal entails the rezoning and subdivision of the subject property to allow for the establishment of a Residential Mixed-Use Development and associated infrastructure.

Furthermore, the proposed development site is situated within the Municipal urban edge and delineated as "Urban Infill" by the Drakenstein Municipality Spatial Development Framework (2022), therefore demarcated for urban development by the Municipality.

7.2. Activity Alternatives

The proposal is for the development of a Residential and Mixed-Use Development including associated infrastructure that is consistent with the Drakenstein Municipality Spatial Development Framework (2022). No other activity alternatives were therefore considered.

7.3. Layout Alternatives

Three layout alternatives have been investigated and considered within this EIA process.

An iterative process has been followed by the Project Team in collaboration with the appointed Specialists to consider all potential constraints and opportunities from an environmental and planning perspective to inform the development layout options.

7.3.1. Initial Development Option

The initial development proposal presented by the Applicant comprised of the development of a residential development with commercial and light industrial components, open spaces, and associated infrastructure.

At this stage none of the aquatic, visual or noise constraints were taken into consideration and the team had to go back to the drawing board to incorporate the recommendations from the specialists.

Furthermore, the applicant decided to discard the light industrial component and replaced the commercial component with the proposed a mixed-use component.

The initial development proposal was thus eliminated during the preliminary design stage and not considered as part of this EIA process. As required in terms of the EIA Regulations, this alternative was mentioned indicate the broad and objective process to formulate the Alternatives assessed.

7.3.2. Alternative A

Alternative A comprises of the rezoning and subdivision of the site to establish a residential estate with open spaces, a mixed-use component and associated infrastructure. Refer to the Subdivision, Rezoning and Phasing Plan (**Appendix B1**).

The proposed land use rights for the residential component of the proposed development are fixed in terms of the permitted land uses and total number of units (216 single residential units); however, the proposed mixed-use site requires more flexibility as the site development plan and land uses have not been finalised and will be informed by future demand.

The detailed site development plans will be submitted for approval to the relevant authorities during the detailed design phase of the project.

This proposal also entails the development of a WWTP in the north-western corner of the site.

The Aquatic Specialist recommended that an aquatic ecological corridor and wetland habitat should be included in the proposed layout. This recommendation has been taken into consideration.

In addition to the Subdivision, Rezoning and Phasing Plan, a more detailed Concept Site Development Plan is presented in order for the noise and visual specialists to determine the environmental constraints and opportunities associated with the proposed development.

The Concept Site Development Plan for Alternative A shows the buildings in the mixed-use component close to the road reserve boundaries of the R301 and Schuurmansfontein Road with parking bays directly bordering on 18 of the proposed units in the residential estate.

Following concerns raised by the Noise and Visual Specialists it was decided by the design team with input from the specialists to reconfigure the layout of the mixed-use component to accommodate the noise as well as the visual constraints. Alternative A was revised to provide a new layout option.

7.3.3. Alternative B – the Preferred Option

Alternative B, now the preferred development option, also comprises the rezoning and subdivision of the site to establish a residential estate with open spaces, a mixed-use component and associated infrastructure. No changes were made to the Subdivision, Rezoning and Phasing Plan (**Appendix B1**).

The major difference between Alternative A and Alternative B is the position of the parking areas relative to the surrounding public roads and the proposed buildings. The proposed buildings associated with Alternative B are identical in form, height, and orientation to those proposed in Alternative A. In Alternative B (preferred), the buildings are however set back from the R301 and Schuurmansfontein roads to accommodate parking and the internal road between the property boundary and the proposed buildings.

8. NEED AND DESIRABILITY

The 'Need and Desirability' requires the consideration of the context of the proposal along with the broader societal needs and the public interest. According to the DEA&DP's Guidelines on Need and Desirability, the concept of need and desirability can be explained as need refers to time and desirability to place – i.e., is this the right time and place for locating the type of land use being proposed? Need and desirability can be equated to wise use of land – i.e. the question of what the most sustainable use of land is.

It is believed that through the adequate consideration of the Need and Desirability concept throughout the EIA process, will ensure that the "best practicable environmental option" is pursued.

Section H of this Final Scoping Report provides a detailed motivation for the need and desirability of this proposal.

9. PUBLIC PARTICIPATION PROCESS

The Public Participation Process (PPP) will be undertaken in terms of Regulation 41 of the EIA Regulations, 2014 (as amended), and DEA&DP's Guideline and Information Document Series [Guideline on Public Participation].

Two rounds of public consultation and authority review will be undertaken as part of this EIA process. One public consultation on the draft Scoping Report and the second public consultation of the draft EIA Report).

Potential Interested and Affected Parties (I&APs) and Organs of State will be identified throughout the EIA process. An I&AP register, referred to as the PPP Register, will be opened, maintained, and made available to any person requesting access in writing. The PPP Register is included under **Appendix G1** of this report.

Proof of the PPP undertaken has been included in this Final Scoping Report under **Section I**.

10. ENVIRONMENTAL IMPACTS AND RISKS

A description of the potential impacts and risks anticipated, during the planning and design (pre-construction), development (construction), and operational (post-construction) phases, as well as the possible mitigation measures to minimise those impacts, are provided in **Section J 3**.

Potential impacts anticipated during the **Planning, Design and Development phase** are as follows –

Geographical, Geological and Physical Aspects

- Potential contamination of shallow perched aquifer
- Dewatering of shallow aquifer
- Potential positive impact on shallow groundwater level
- Loss of agricultural land

Ecological Aspects

- Potential Loss of Swartland Alluvium Fynbos
- Potential modification of watercourse flow and water quality

Socio-Economic Aspects

- Potential positive impact on local employment and business

Cultural Landscapes and Visual Aspects

- Potential impact on sense of place
- Potential impact on visual amenity of the R301 Scenic route
- Potential impact on local heritage and other protected resources
- Potential impact on commuters on the R301 Scenic route
- Potential impact on local sensitive receptors

Nuisance Aspects

- Potential noise impact on adjacent landowners
- Potential dust impact on adjacent landowners

Traffic and Transport Aspects

- Impact on traffic flow in the area

Potential impacts anticipated during the **operational phase (post-construction)** are –

Geographical, Geological and Physical Aspects

- Potential shallow groundwater contamination
- Potential for groundwater contamination (deeper aquifer)
- Potential for over saturation of perched shallow aquifer

Ecological Aspects

- Modification of aquatic habitat and potential for flow and water quality modification

Socio-Economic Aspects

- Potential positive impact on local employment and business

Nuisance Aspects

- Potential impact from traffic noise from the R301 and the parking area in the mixed-use component.

Visual Aspects

- Potential impact on sense of place
- Potential impact on visual amenity of the R301 Scenic route
- Potential impact on local heritage and other protected resources
- Potential impact on commuters on the R301 Scenic route
- Potential impact on local sensitive receptors

Traffic and Transport Aspects

- Impact of traffic flow and volumes in the area

11. PLAN OF STUDY FOR EIA

11.1. Alternatives to be considered and assessed

Alternative A, the preferred alternative (Alternative B), and the option of not implementing the proposed development have been considered in this Scoping Report. Alternative A, the preferred alternative (Alternative B), and the no-go option (as described in **Section G** of this report) will be assessed further in the EIA phase.

11.2. Environmental Aspects & Potential Impacts to be assessed

The environmental aspects and potential impacts investigated as part of this Scoping phase will be investigated further in the EIA phase.

11.3. Aspects to be Assessed by Specialists

The aspects listed below will be assessed further by the respective specialists as part of the EIA phase.

Geographical, Geological and Physical Aspects

- Accidental spillages
- Dewatering of excavations
- Removal of Alien vegetation
- Treated effluent
- Poor wastewater management or regular overflow of the stormwater ponds
- Rezoning of agricultural land

Biodiversity Aspects

- Site clearing and earthworks

- Infilling of wetlands
- Treated effluent & Stormwater

Visual Aspects

- Visible site clearing activities, earthworks and construction works
- Visible site clearing activities, earthworks and construction works
- Visible site clearing activities, earthworks and construction works
- Visible site clearing activities, earthworks and construction works
- Visible site clearing activities, earthworks and construction works
- The overall proposed development
- Change in land-use
- Visibility of the proposed development
- Visibility of the proposed development
- Visibility of the proposed development
- Visibility of the proposed development

Nuisance Aspects

- Road traffic
- Noise nuisance from parking area in mixed-use component

Traffic and Transport Aspects

- Increased traffic volumes

11.4. Specialist Terms of Reference for Assessment of Environmental Aspects

Each specialist is required to consider the project in as much detail as is required to inform the respective impact assessment.

The specialist will be instructed that all the respective specialist studies must contain all information set out in Appendix 6 of the EIA Regulations, 2014 (as amended) or comply with the relevant protocol of minimum information requirements relevant to the proposed activities.

11.5. Method of Assessing Impact Significance

The impact assessment criteria that will be used during the EIA process, is drawn from the EIA Regulations, 2014 (as amended) published by the Department of Environmental Affairs and Tourism (April 1998) in terms of the Environmental Conservation Act, 1989 (Act No. 73 of 1989) and the DEA&DP Guidelines for involving Biodiversity Specialists in EIA Processes, 2005.

The complete Impact Assessment Methodology is included under **Appendix H3** of this report.

11.6. Consultation with the Competent Authority

Engagement with the competent authority, DEA&DP, will be ongoing throughout the environmental process and will include the following as a minimum:

Tasks	Status	Date Completed
Submission of the Notice of Intent to Develop	Completed.	21 September 2022
Pre-Application Meeting	Completed.	06 October 2022
Submission of EA Application Form.	Completed.	01 February 2023
Provision of a copy of Scoping report firstly for comment and then decision making.		
Comment on Scoping report	Completed	06 March 2023

Submission of the final Scoping Report for decision making.	This report.	To be confirmed.
Provision of a copy of the Environmental Impact Report for comment and decision making.	To be provided.	
Undertaking a site inspection with the Competent Authority if deemed necessary.	To be undertaken, if required by DEA&DP.	

11.7. Public Participation Process to be Undertaken during the EIA process

The PPP will be undertaken as per the requirements of the EIA Regulations, 2014 (as amended).

The following is a list of tasks to be performed as part of the EIA process:

Tasks
Receive approval for the Final Scoping Report and the Plan of Study for this EIA process.
Compile draft EIA Report for public comment based on specialist information.
Submit copies of the draft EIA Report to DEA&DP and relevant State Departments and Organs of State and notify them of the commenting period (in terms of Section 24O of NEMA).
Notify Registered I&APs of the opportunity to comment on the EIA Report.
Make the draft EIA Report (including EMPr and WULA) available for a 30-day commenting period.
Receive comments on the draft EIA Report.
Preparation of a final EIA Report for submission to DEA&DP including proof of the PPP, comments received and our responses to these comments.

The EIA Report for the proposed development will consider and comply with the requirements of the EIA Regulations, 2014 (as amended).

11.8. Tasks to be undertaken in EIA Process

The EIA process will be undertaken in line with the Plan of Study for EIA (**Section K**), if approved. The EIA process will be undertaken in accordance with Regulation 23 and Appendix 3 of the EIA Regulation, 2014 (as amended).

The environmental impacts, mitigation, and closure outcomes as well as the residual risks of the proposed activity will be set out in the EIA Report.

12. CONCLUSION AND RECOMMENDATIONS

The purpose of this Scoping Report is:

- to provide an overview of the receiving environment to be affected;
- to present the site constraints identified by the various specialists during their initial site assessments;
- to identify the important environmental issues to be considered in the EIA process;
- to provide a way forward (Plan of Study) for the EIA process; and
- to identify the information necessary for decision-making by the competent authority.

This Final Scoping Report will allow I&APs, authorities, specialists, and the project team to provide input on the proposed development and raise issues and concerns based on the findings of the respective specialist studies.

The EAP is of the opinion that the information contained in this Scoping Report is sufficient to allow I&APs and key stakeholders to apply their minds to the potential impacts (negative and/or positive) associated with the proposed development, in respect of the proposed development and the activities applied for.

This Final Scoping Report will be submitted to the competent authority for their decision making process. Registered I&APs and organs of the state will be informed once the Final Scoping Report has been submitted and the availability of the Final Scoping Report for their information.

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SECTION A: INTRODUCTION

Doug Jeffery Environmental Consultants (Pty) Ltd., has been appointed by **Future Megawatt (Pty) Ltd.** ("the Applicant"), as the Environmental Assessment Practitioner (EAP) to undertake the Application for Environmental Authorisation (EA) in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) [NEMA] and the Environmental Impact Assessment (EIA) Regulations, 2014 (as amended), for the proposed rezoning and subdivision of Portion 11 of Farm No. 1426, Paarl for the establishment of a residential and mixed-use development with ancillary infrastructure. The proposed development will be referred to as "Avec la Terre."

Avec la Terre is envisaged to be an upmarket residential gated estate with a mixed-use component comprising office, retail, hotel and/or sectional-title residential opportunities.

1. Site Location

Portion 11 of Farm No. 1426, Paarl ("the site"), is situated south of Paarl in the Cape Winelands region of the Western Cape.

The site is located at the intersection of the R301 (Wemmershoek Road) and Schuurmansfontein Road approximately 8km south of the N1 highway (refer to **Figure 1** and **Appendix A**), near the existing Pearl Valley Golf Estate.

The R301, linking with Paarl to the north and Wemmershoek to the south, runs along the eastern boundary of the site. Schuurmansfontein Road passes along the northern boundary of the site.

Other nearby towns or settlements include Franschhoek, Simondium, Pniel, Kylemore, Stellenbosch and Klapmuts.

1.1. Property Details

The detail of the property is provided in **Table 1**.

Table 1: Property details.

Property Number	Coordinates		SG Code	Size
	Latitude (S)	Longitude (E)		
Farm 11/1426	33° 49' 36.27"	18° 59' 58.91"	C05500000000142600011	274 817m^2 (27.4817ha)

2. Site Photographs

Colour photographs of the site and its surroundings with a description of each photograph is included under **Appendix C** of this report.

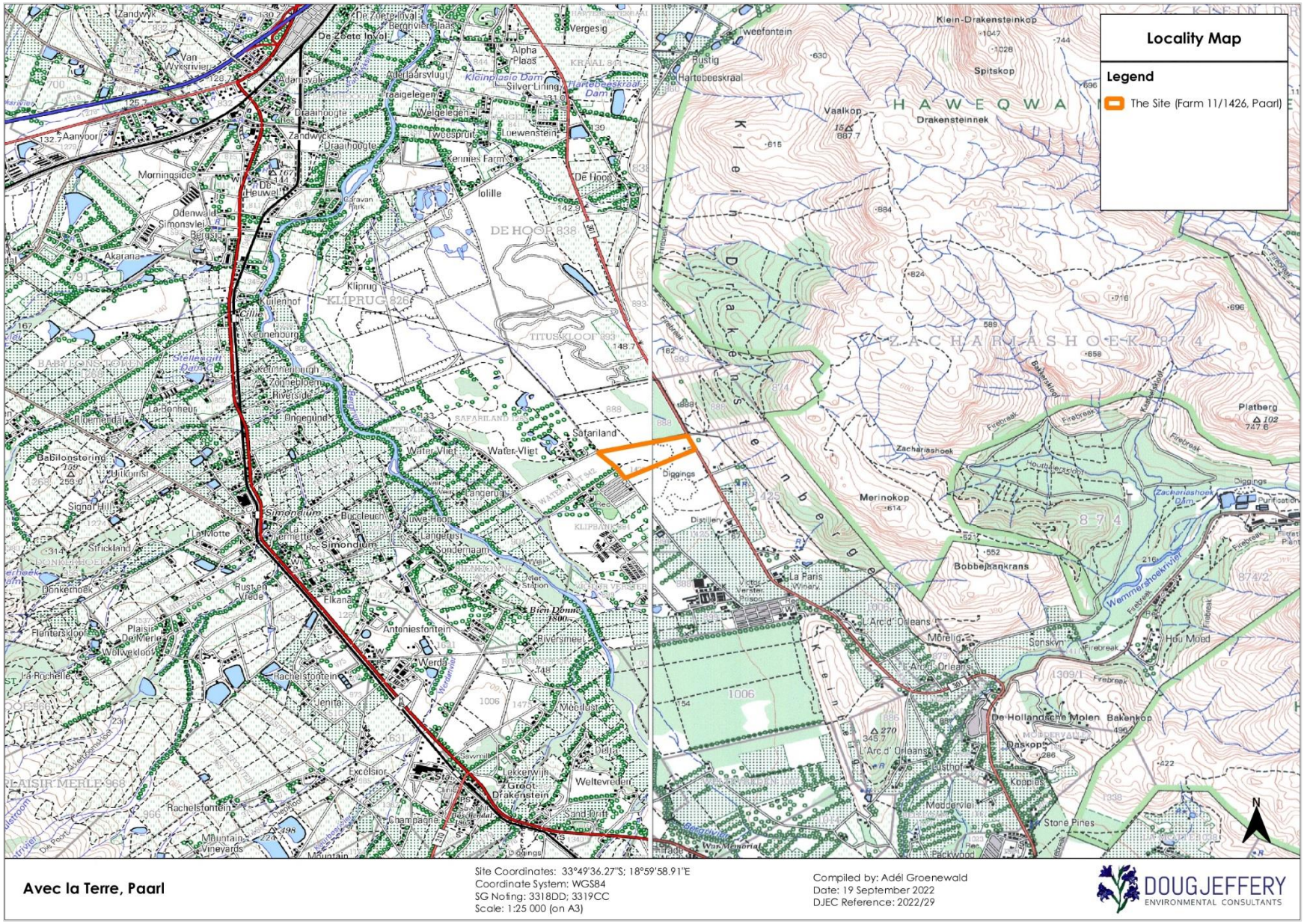

Figure 1: Location of the site.

SECTION B: DESCRIPTION OF THE PROPOSED DEVELOPMENT

1. Proposed Rezoning and Subdivision

This proposal is for the rezoning and subdivision of Portion 11 of Farm No. 1426, Paarl from Agriculture Zone to Subdivisional Area comprising 236 portions to create separate land units for residential, mixed-use, open space, private road and utility purposes (see **Table 2**).

Table 2: Proposed subdivision and zonings.

Zoning	Land Use	Portion No.	Total Erven	Units	Area (ha)	%
Conventional Housing	Single Residential	1 – 216	216	216	15.58	56.7
Mixed-Use Zone	Mixed-Use (incl. office, retail, institutional, hotel and/or flats)	228	1		2.83	10.29
Open Space Zone	Private Open Space	217-227	11		2.27	8.28
Utility Zone	Utility Services, Utility Plant	234-236	3		0.51	1.87
Transport Zone	Private Road	230-233	4		5.75	20.93
Transport Zone	Public Road	229	1		0.54	1.96
Total			**236**	**216**	**27.48**	**100**

The intention is to apply for environmental authorisation for the land use zonings and associated land uses to allow flexibility in the implementation of the approved rights for the residential and mixed-use components. Although the proposed land use rights for the residential component of the proposed development are fixed in terms of the permitted land uses and the total number of units (216 single residential units), the proposed mixed-use site requires more flexibility as the site development plan and land uses have not been finalised and will be informed by future demand.

The detailed site development plans will be submitted for approval to the relevant authorities in the detailed design phase.

2. Proposed Land Uses

This section is based on and must be read in conjunction with the information contained in the **Draft Architectural Design Guidelines (Appendix F1)** and the **Landscape Guidelines (Appendix F2)** included in this report.

2.1. Residential

The residential estate comprises the largest area of the site and derives access from Schuurmansfontein Road. The residential component consists of 216 single residential properties within a security controlled estate, with associated private roads and open spaces.

Provision is made for three property size categories within the residential estate:

- "Small" properties, which are on average between 350m^2 and 500m^2 in size.
- "Medium" properties, which are on average between 500m^2 and 1000m^2 in size.
- "Large" properties, which are on average between 1000m^2 and 1500m^2 in size.

Specific unit types will be designed for all property size categories. These unit-types provide for a range of 3-bedroom or 4-bedroom units and are either single or double storey in size.

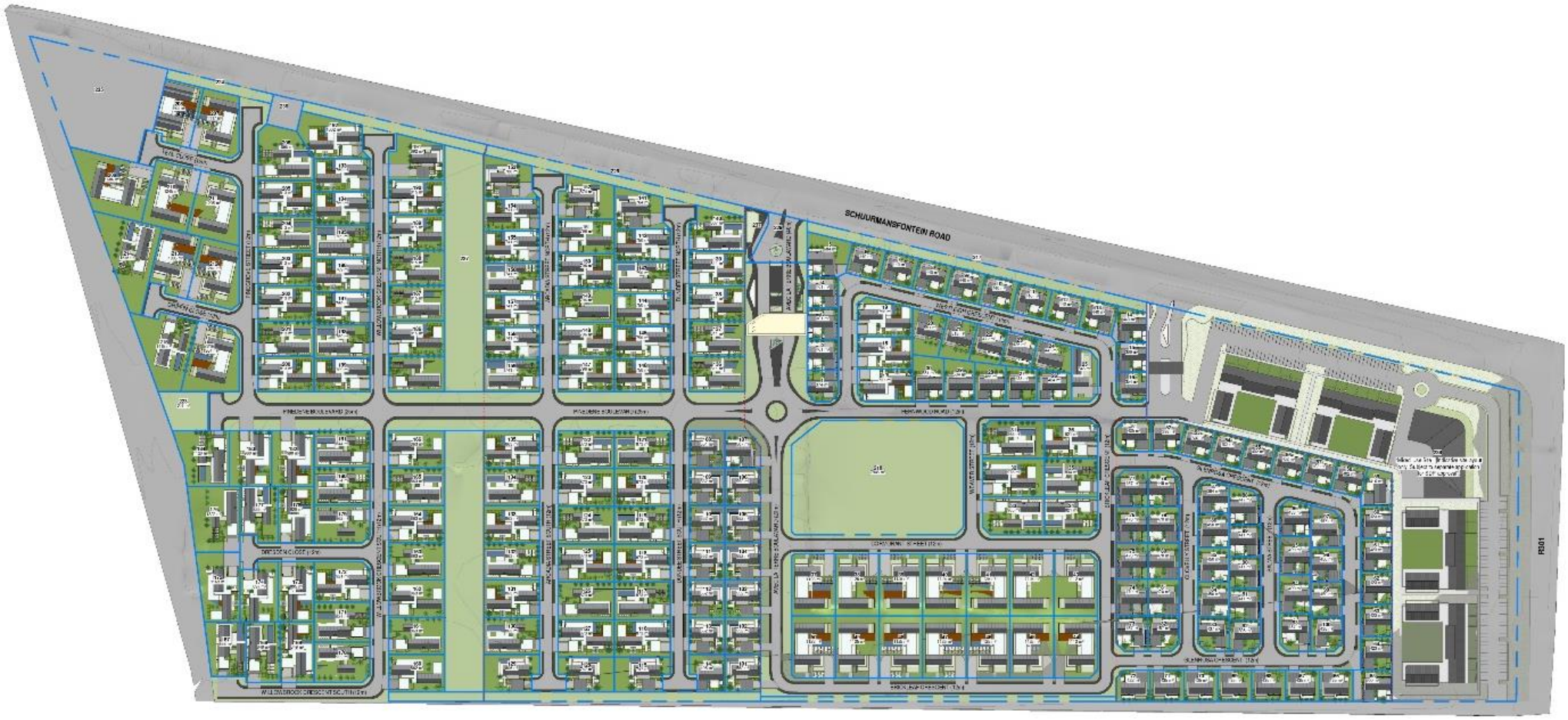

Figure 2: Conceptual layout of the proposed development.

2.2. Mixed-Use Component

The proposed mixed-use site is situated on the eastern portion of the site and is approximately 2.8 ha in extent. It is planned for this site to be developed at a higher density and built form to create a positive interface with the R301 and to reinforce a more defined built form along the R301 corridor.

This portion will accommodate a mix of land uses including office, retail, hotel and/or sectional apartments. These facilities may be directly or indirectly linked with the residential estate. Provision is therefore made for the Mixed-Use site to be accessed internally from the residential estate. This is in addition to the main access from Schuurmansfontein Road.

It is important to note that a final Site Development Plan (SDP) or breakdown of land uses and floor space for the Mixed-Use site is not ready at this stage. The layout indicated on the attached site development plan, as well as all other drawings and images related to the Mixed-Use site (**Figure 3** and **Figure 4**), are indicative at this stage and illustrate what can be achieved. This report however provides constraints and recommendations with which the final design of this mixed use component when submitted for final approval must comply.

Figure 3: An indicative 3D model of the proposed Mixed-Use site, as viewed from the east.

Figure 4: An indicative 3D model of the proposed Mixed-Use site, as viewed from the north-east.

2.3. Open Spaces and Landscaping

Landscape Guidelines has been prepared by the landscape architects Viridian Consulting Landscape Architects, to illustrate the landscape vision for this development. Refer to the **Landscape Guidelines (Appendix F2)** and the **Landscape Plan (Appendix B3)** included in this report**.**

2.3.1. Community Park

The exiting dam on the site will be renovated to serve as a community park within the proposed development. The form, character and function of the large detention pond will celebrate water sustainability, habitat creation and recreation. The park will be an active and passive space, creating a coherent community. Provision is made for a large lawn area, play structures, pedestrian paths, seating areas and a viewing deck (refer to **Figure 5**).

Figure 5: Proposed community park.

2.3.2. Wetland Park

A large wetland corridor will be created within the residential component in order to maintain the aquatic ecological corridor through the site from north to south.

The primary aim of the wetland corridor is to allow the movement of water and associated biota through the site and provide a level of wetland habitat and functionality within the created habitats. The water will be supplied by the stormwater pond, during the times of need, where excess water will be pumped into the high point of the wetland park and be gravity fed from there. The approximate extent of wetland habitat that would need to be created is about 1 – 2ha.

The aim would be to introduce habitat diversity accompanied by a series of varying stream like sections of narrow and then pool/wetland areas.

The intent is to introduce water into this section to add a system and series of water features, of which some are permanently wet, more aesthetically pleasing features, and some sections of the water system is fed by natural and stormwater drainage. The wetland park is designed in such a way to facilitate and integrate stormwater designs and strategies. The created habitats will be a combination of areas that can attenuate and treat stormwater runoff and then have more natural areas (refer to **Figure 6**).

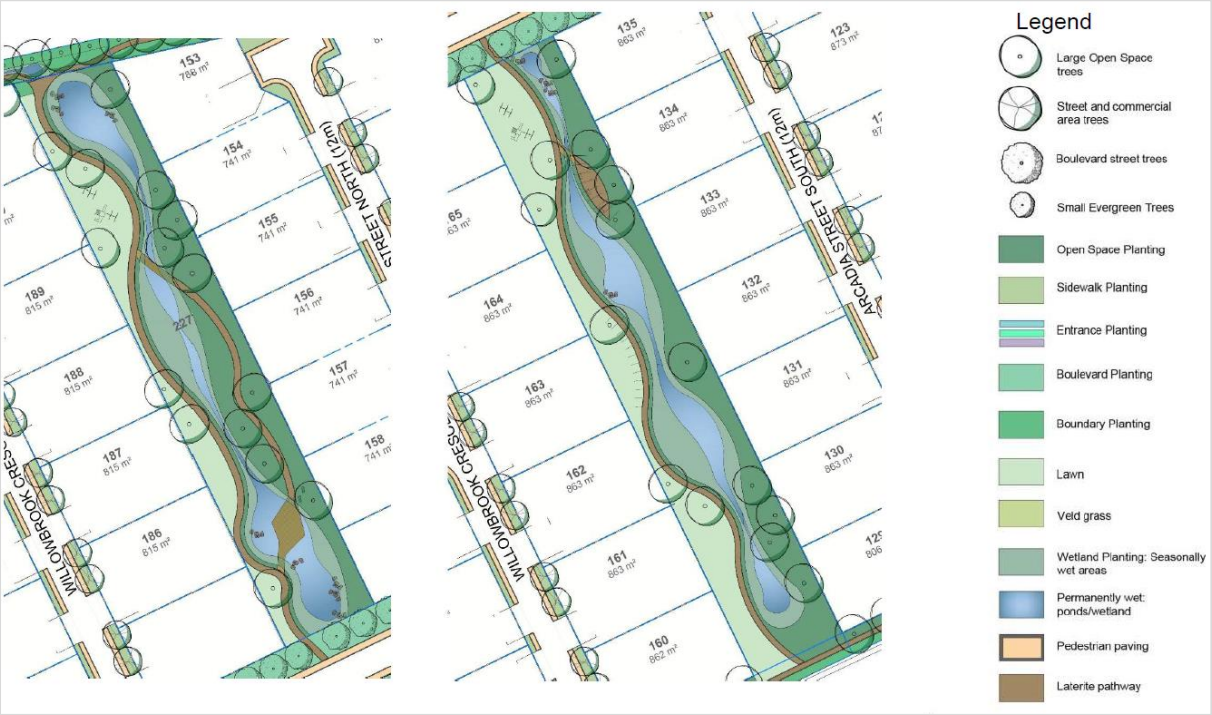

Figure 6: Proposed wetland parks, north (left) and south (right).

2.3.3. Boundary interface along Schuurmansfontein Road

The interface of the proposed development on Schuurmansfontein Rd required specific design attention. Not only is this boundary highly visible traveling southbound along the R301 (largely due to Portion 1 of Farm 888 which will remain open as a conservation area), but it also forms the entrance route from the R301 to the proposed development and areas further west, which include the Mandela House facility. A 6.5m wide buffer area is therefore provided along this boundary allowing space for tree planting to appropriately screen the development, as well as stormwater swales and pedestrian paths (refer to **Figure 7**).

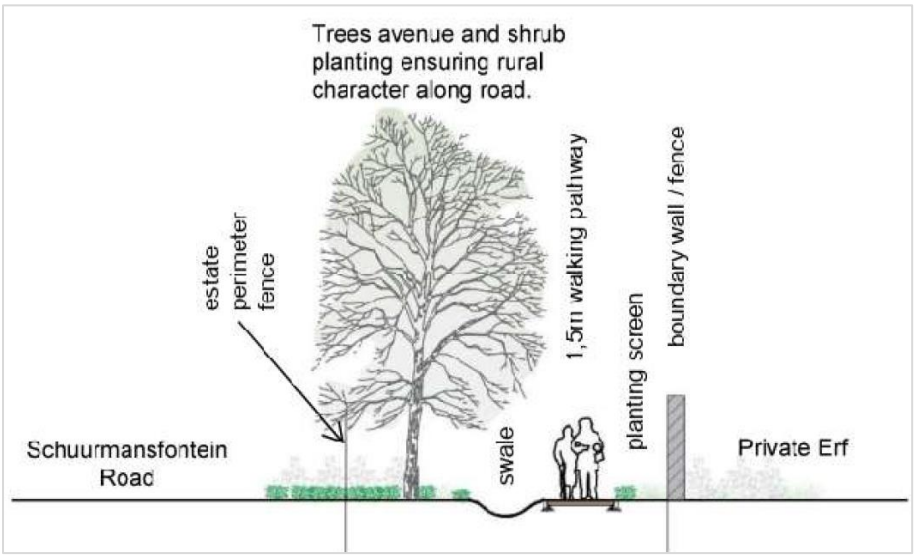

Figure 7: A cross-section illustrating the design of the buffer corridor along the Schuurmansfontein boundary.

The boundary fence will consist of a 1.8m high mesh fencing which will be fixed to cylindrical poles. The fence design will tie in with the rural character of the area. Electrical fencing will be fixed to the top of this fence, creating a maximum height of 2.2m.

2.3.4. Boundary interface along R301

With the R301 being a scenic route, careful consideration should also be given to the interface treatment along this boundary on the Mixed-Use site. This includes extensive tree planting along this boundary, while also allowing for the required future road widening of this road.

Figure 8 illustrates the cross-section along the R301 boundary. Note that the design of this interface will be considered in greater detail during the SDP process for the mixed-use component, which is to be done separately at a later stage.

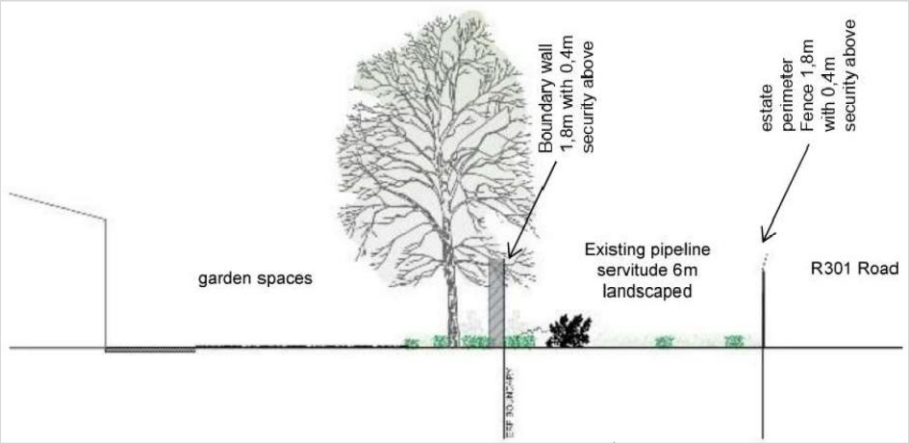

Figure 8: A cross-section illustrating the interface with the R301.

Refer to the **Landscape Guidelines** included in **Appendix F2** for a more detailed description of all the different landscape components.

2.4. Access, Roads, and Parking

The main vehicular access from Schuurmansfontein Road to the residential estate will be access-controlled by means security gates/booms and manned security. The access gates/control point is set back more than 60m from the Schuurmansfontein boundary and provides for more than sufficient stacking distance for vehicles waiting to enter the estate.

A secondary vehicular access on Schuurmanfontein Road will provide access to the proposed mixed-use component only.

The main north-south and east-west boulevards of the estate have wide road reserve widths (20m and 25m) to allow for additional landscaping to create the boulevard effects for these roads. All other internal roads are accommodated within 12m road reserves and will be paved.

Except for the ten visitors' parking bays at the main estate entrance (inside and outside the access gates) no other form of on-street parking is provided. All residential properties will accommodate double garages and space for additional parking in the driveways to ensure that sufficient provision is made for off-street parking for residents and visitors.

3. Proposed Services

This section describes the bulk services requirements (i.e., water, sewer, solid waste, electricity supply) for the proposed development as described in the **Services Report & Stormwater Management Plan** included in **Appendix F3** and the **Electrical Services Report** included in **Appendix F4**.

The Service Capacity Confirmation Letters will be provided in the EIA phase.

3.1. Bulk Water Supply

3.1.1. Water demand

The approximate Annual Average Daily Demand (AADD) and fire flows for the development was calculated as 256.08kℓ/day.

3.1.2. Bulk infrastructure

According to the GLS Report the proposed development falls withing the Pearl Valley reservoir water distribution zone.

The existing 400mm diameter bulk pipeline which supplies the Pearl Valley reservoirs with water has sufficient capacity to accommodate the proposed development.

Drakenstein Municipality has however indicated that the section of the pipeline between the R301 Main Road and the Pearl Valley reservoirs is in a bad state of repair and should be replaced.

The following upgrade to the existing bulk supply to the Pearl Valley reservoirs is proposed in the Water Master Plan to accommodate any additional developments within the Pearl Valley reservoir supply area:

- 310m x 710mm diameter replace existing 400mm diameter bulk supply line.

A new 250mm diameter supply line will be required for future connections and to connect the proposed development to the existing 400mm diameter supply pipe from the Pearl Valley reservoirs.

Refer to the **Proposed Bulk Water Layout Plan** included in **Appendix B2 and Appendix F3**.

3.2. Sanitation

The natural drainage pattern of the proposed development is towards the north-western boundary of the site.

The Average Annual Daily Flow (AADF) for the proposed development was calculated as 256.08kℓ/day.

3.2.1. Existing infrastructure

The development falls within the existing Paarl Gravity drainage area. According to the GLS Report there is sufficient capacity in the existing Paarl gravity sewer reticulation system downstream of the proposed connection point to accommodate the proposed development.

New bulk sewer infrastructure will however be required to connect the proposed development to the existing Paarl bulk sewer on the southern side of the N1 National Road and the western side of the Berg River. This infrastructure is not yet in place and therefor a wastewater treatment plant is proposed for this development.

Refer to the **Proposed Sewer Reticulation Layout** included in **Appendix B2 and Appendix F3**.

3.2.2. Proposed wastewater treatment plant

Sewerage from the proposed development will drain to the north-western portion of the site where a wastewater treatment plant (WWTP) will be constructed. The proposed development is situated north of the Berg River in Paarl and therefore any water discharged into the Berg River needs to comply to the Department of Water and Sanitation (DWS) special limits standard.

The effluent of the proposed package plant will be treated to the special limit standard and could be stored and utilized for the irrigation of the open spaces and gardens of the proposed development.

The treated water will be discharged into the retention pond and be used for irrigation purposes across the development. During winter months it is possible for overflow of the retention pond. The quality of water is confirmed as suitable to overflow into the stormwater system as the water will be treated to special conditions.

Back up power will be supplied to the WWTP with a 48hr buffer tank capacity of one treatment process "train". Three treatment process trains will be supplied, and this would be phased as the development construction continues. This approach also allows for maintenance to be done to one of the three trains as needed without down time.

Refer to the **Services Report & Stormwater Management Plan** included in **Appendix F3**.

3.3. Electricity Supply

The area is currently supplied with electricity by Drakenstein Municipality.

The total estimated load for the development is 2326kVA.

According to the Drakenstein Municipality there is sufficient electrical supply-capacity available from the step-down substation in the area.

The municipality requested a 20x20m erf for a future brick-built substation, that will strengthen the network in the area, and will be utilized to supply this development. Provision for the substation is made on portion 234 of the proposed development. The municipality indicated that they are satisfied with the location and the size of the erf. The feeder-cables to this substation will be installed in future by Drakenstein Municipality, all external to this development and subject to programming, funding, and planning by Drakenstein Municipality.

For this development, temporary switchgear will be installed in the substation, and will be fed from the existing 11kV-overhead line along Schuurmansfontein Road. As part of the development, 11kV-cabling will be installed along Schuurmansfontein Road to the entrance of the development, where a bulk MV-metering point will be located for the supply to the development.

A separate 11kV-cable will be routed in the same trench, along Schuurmansfontein road, to the commercial development, also with their own MV-metering supply point.

Refer to the **Electrical Services Report** included in **Appendix F4**.

3.3.1. Street lighting

All streetlighting will be designed in accordance with SANS-standards. Decorative fittings will be utilized to compliment the development's ambiance and theme.

3.3.2. Energy saving measures

It is in the Developer's interest to ensure that all efforts are made to reduce the maximum demand and use of electricity by the development. The Developer will ensure compliance with the national building regulations pertaining to energy measures on the electrical installations.

All streetlighting will be LED-luminaires with limited light-pollution.

3.4. Solid Waste Management

A refuse storage area is proposed on the western side of the site access. A traffic roundabout will allow refuse trucks to enter from the east (via the R301), to move around this roundabout and to stop within the refuse embayment next to the refuse storage area where refuse is then collected.

Drakenstein Municipality collects household waste on a weekly basis for disposal from a refuse bay area located at the main entrance road reserve. The waste will be collected by an appropriate contractor appointed by the body corporate and taken to the refuse rooms provided from where it will be collected by the Municipality.

Refer to the **Bulk and Internal Civil Services Report** included in **Appendix F3**.

3.5. Stormwater Management

The proposed development will create more impervious areas (roads, roofs etc) compared to the existing situation and the storm water run-off from the proposed development will be increased.

A mountainous external catchment to the east of the development site discharges to an existing 600mm diameter stormwater pipe below Wemmershoek Road. The runoff then flows in a northerly direction towards Schuurmansfontein Road.

On the eastern side of Wemmershoek Road at the 600mm diameter stormwater pipe, runoff is allowed to pond 0.72m before continuing in a northerly direction along Wemmershoek Road. The 600mm diameter stormwater pipe is inlet controlled and thus has limited capacity discharging towards the development site.

On the southern side of Schuurmansfontein Road, is an informal roadside channel.

No runoff should come from Portion 10 of Farm 1426, due to a high point along the northern boundary of Portion 10 of Farm 1426. This was confirmed by the topographical survey, 5m contours from the Surveyor General and site visits. All runoff from Portion 10 of Farm 1426 is discharged as sheet flow in a southerly direction away from the development site.

Phase 1, 2 and 5 will be directed to the retention pond 1 *via* minor stormwater networks. In the case of overflow the retention pond will overflow into the stormwater network which will route the water to retention pond 2. All stormwater from phase 3 and phase four will be directed to retention pond 2. These retention ponds will be used for overall irrigation purposes. Stormwater from retention pond two will overflow into Portion 2 of Farm 942 *via* a stilling basin.

Green strips/swales are provided throughout the development to accommodate stormwater runoff from the roads and also to act as a water quality buffer.

Refer to the **Services Report & Stormwater Management Plan** included in **Appendix B2 and Appendix F3**.

SECTION C: POLICY AND LEGISLATIVE CONTEXT

The legislation that is relevant to this study is briefly outlined below. These environmental requirements are not intended to be definitive or exhaustive but serve to highlight key environmental legislation and responsibilities only.

There are several Acts which form part of a suite of legislation called Specific Environmental Management Acts (SEMAs) that fall under NEMA. The following SEMAs are also relevant to this application and will regulate the proposed development:

- The Constitution of South Africa Act, 1996 (Act No. 108 of 1996)
- The National Environmental Management Act, 1998 (Act No. 107 of 1998)
- The EIA Regulations, 2014 (as amended)
- The National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)
- The National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
- The National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
- The National Heritage Resources Act, 1999 (Act No. 25 of 1999), and
- The National Water Act, 1998 (Act No. 36 of 1998).

1. The Constitution of The Republic of South Africa

The Constitution of the Republic of South Africa, 1996, forms the basis for the law and government of the nation of South Africa.

Environment

Section 24 of the Constitution protects environmental rights in South Africa. This right call for a healthy environment to every person and mandates the State to ensure compliance with the act. The State is prohibited from infringing on the right to environmental protection and is further required to provide protection against any harmful conduct towards the environment.

Section 24 of the Constitution states as follows:

"Everyone has the right –

(a) To an environment that is not harmful to their health or well-being; and
(b) To have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that –
  i) prevent pollution and ecological degradation;
  ii) promote conservation; and
  iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development."

Section 24 also incorporates International Environmental Law which includes the duty of care and that the "Polluter" will pay for polluting the environment, which creates liability for environmental damage caused.

Access to Information

Section 32(1)(a) of the Constitution of the Republic of South Africa, 1996, determines that everyone has a right of access to any information held by the State. Section 32(2) of the Constitution provides for the enactment of national legislation to give effect to this fundamental right. The Promotion of Access to Information, 2000 (Act No. 2 of 2000) (PAIA) is the national legislation contemplated in section 32(2) of the Constitution.

Section 9 of PAIA recognises that the right of access to information is subject to certain justifiable limitations aimed at, amongst others:

(a) the reasonable protection of privacy;
(b) commercial confidentiality;
(c) effective, efficient, and good governance.

Just Administrative Action

Section 33 of the Constitution states that everyone has the right to administrative action, which is lawful, reasonable, and procedurally fair. The Promotion of Administrative Justice Act, 2000 (Act No. 3 of 2000) (PAJA) was promulgated to give effect to the rights under Section 33 of the Constitution. Section 3(1) of PAJA provides that administrative action which materially and adversely affects the rights or legitimate expectations of any person must be procedurally fair.

2. The National Environmental Management Act, 1998

Section 24 of the Constitution provides the right to every person for a non-harmful environment and simultaneously mandates the government to protect the environment. The framework to enforce Section 24 of the Constitution is the NEMA.

The NEMA has provided the framework for decision-making for individuals, institutions, and government. The NEMA defines its key principles which are aimed at promoting co-operative governance and ensuring that the rights of people are upheld, while at the same time recognising the importance of economic development. The NEMA makes provision for the identification and assessment of activities that are potentially detrimental to the environment, and which require authorisation from the relevant authorities based on the findings of an environmental assessment.

DEA&DP is the competent authority governing the NEMA requirements in the Western Cape.

2.1. Section 2 of NEMA

Section 2 of the NEMA provides principles of environmental management to serve as a framework for environmental management implementation and decision making. The main and applicable principles of environmental management as set out in Section 2 of NEMA emphasize the following:

- Environmental management placing people and their needs at the forefront of its concern, and serve their physical, physiological, developmental, cultural, and social interests equitably.

  Interested and Affected Parties (I&APs) and Stakeholders will be allowed the opportunity to consider and submit comment, thereby ensuring that all people's needs, rights and concerns will be addressed through this process.

- Development must be socially, environmentally, and economically sustainable

  The proposed development was designed to be in line with the objectives and principles contained in the relevant spatial frameworks, policies, guidelines, and legislation. All potential environmental impacts will be assessed by specialists.

- Interests, needs and values of interested and affected parties.

  This process will provide potential I&APs and other key stakeholders with sufficient opportunity for review, comment, and input in the process.

- Access of information.

  Potential and registered I&APs will all be provided with the available documentation contained in this report.

- Costs of remedying pollution and environmental degradation

The applicant appointed a team of specialists to assess any impacts caused by the development and to propose mitigation measures to avoid any significant negative impacts and to identify areas that should be avoided at all costs.

- Sensitive, vulnerable, highly dynamic, or stressed ecosystems.

Specialists will assess any potential impacts that may be caused by the proposal and have proposed measures to mitigate negative impacts where they cannot be avoided.

- Negative Impacts on the environment and people's environmental rights must be anticipated and prevented, and where they cannot be prevented are minimized and remedied.

All potential negative impacts will be assessed and where impacts cannot be avoided, mitigation measures will be recommended to minimise or remedy these impacts. This will be detailed in the EIA Report.

2.2. Section 23 of NEMA

The purpose of Section 23 of NEMA is to promote the application of appropriate environmental management tools in order to ensure the integrated environmental management of activities. The general objectives were considered by doing the following:

- A team of specialists were appointed to assess the significance of the site and the impact of proposed development on the site and surrounds.
- All significant impacts on the environment and the community will be considered and discussed in this application. Where impacts cannot be avoided, mitigation measures will be proposed to reduce the impact to acceptable limits.
- An Environmental Management Programme (EMPr) will be compiled to ensure the construction of the proposed development is done according to best environmental management practices.
- A Public Participation Process (PPP) will be undertaken as per the EIA Regulations, 2014 (as amended) and DEA&DP's Guidelines on PPP which allows sufficient opportunity for public consultation.

2.3. The EIA Regulations

The purpose of the EIA Regulations, 2014 (as amended) is to regulate the procedure and criteria as contemplated in Chapter 5 of the NEMA relating to the preparation, evaluation, submission, processing and consideration of, and decision on, applications for environmental authorisations for the commencement of activities, subjected to EIA, in order to avoid or mitigate detrimental impacts on the environment, and to optimise positive environmental impacts, and for matters pertaining thereto.

Lists of activities which require environmental authorisation are published in three listing notices (GN R. 324, 325, and 327 of April 2017). Provision in the EIA Regulations is made for two types of assessments: Basic Assessment Process and Scoping and EIA Process. The EIA Regulations specify that:

- Activities identified in Listing Notice 1 (GN No. R. 327 of 2017) and Listing Notice 3 (GN No. R. 324 of 2017) constitutes a Basic Assessment process.
- Activities identified in Listing Notice 2 (GN No. R. 325 of 2017) constitutes a Scoping and EIA process.

2.3.1. Listed Activities Triggered and Applied For

The listed activities associated with the proposed development are listed in the following tables.

Table 3: Listed Activity in terms of Listing Notice 1 [GN No. R. 327].

Activity No.	Description of the Listed Activity	Description of the portion of the development that relates to the applicable listed activity as per the project description.
12	The development of – (i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or (ii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs – (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;- excluding – (aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour; (bb) where such development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies; (cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies; (dd) where such development occurs within an urban area; (ee) where such development occurs within existing roads, road reserves or railway line reserves; or (ff) the development of temporary infrastructure or structures where such infrastructure or structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared.	The proposal entails the development of structures with a physical footprint of more than 100 square metres within 32 metres of a watercourse, measured from the edge of a watercourse.

Activity No.	Description of the Listed Activity	Description of the portion of the development that relates to the applicable listed activity as per the project description.
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.	The proposal will require the infilling of more than 10 cubic metres of material into a watercourse (wetlands) in order to level the site for the development.
28	Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development: (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or institutional purposes.	The proposal entails the rezoning and subdivision of agricultural land to establish a residential estate with a commercial component. The proposed development site is located outside an urban area and the total land to be developed is approximately 27.4817 hectares.

Table 4: Listed Activity in terms of Listing Notice 2 [GN No. R. 325].

Activity No.	Description of the Listed Activity	Description of the portion of the development that relates to the applicable listed activity as per the project description.
15	The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for- (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	The proposal will require the clearance of an area of more than 20 hectares of indigenous vegetation.

Table 5: Listed Activity in terms of Listing Notice 3 [GN No. R. 324].

Activity No.	Description of the Listed Activity	Description of the portion of the development that relates to the applicable listed activity as per the project description.
4	The development of a road wider than 4 metres with a reserve less than 13.5 metres. **i. Western Cape** i. Areas zoned for use as public open space or equivalent zoning; ii. Areas outside urban areas; (aa) Areas containing indigenous vegetation; (bb) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or iii. Inside urban areas: (aa) Areas zoned for conservation use; or (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority.	The proposal will entail the development of internal roads with a reserve less than 13.5 metres outside urban areas containing indigenous vegetation.
12	The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. **i. Western Cape** i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the	The proposal will entail the clearance of an area of more than 300 square metres of indigenous vegetation, within an endangered ecosystem listed in terms of section 52 of the NEMBA.

Activity No.	Description of the Listed Activity	Description of the portion of the development that relates to the applicable listed activity as per the project description.
	NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; ii. Within critical biodiversity areas identified in bioregional plans; iii. Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas; iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning; or v. On land designated for protection or conservation purposes in an Environmental Management Framework adopted in the prescribed manner, or a Spatial Development Framework adopted by the MEC or Minister.	

*The listed activities triggered by the proposed development, as described in **Table 3** and **Table 4** have prompted the need for this Scoping and EIA process to be undertaken.*

The EIA Regulations also makes provision for -

- The duties of the competent authority, proponents, and applicants;
- The requirements of the application for environmental authorisation;
- The appointment of an independent Environmental Assessment Practitioner (EAP) and specialists;
- The undertaking of a PPP;
- Any decision taken by the competent authority may be appealed in terms of the National Appeal Regulations.

Both the NEMA principles and the Section 28 duty of care are considered during the course of this assessment.

2.3.2. Description of the Scoping and EIA Process

In terms of the EIA Regulations, 2014 (as amended) a Scoping and EIA process must be undertaken as part of the application for environmental authorisation. The following flow diagram (**Figure 9**) summarises the Scoping and EIA process.

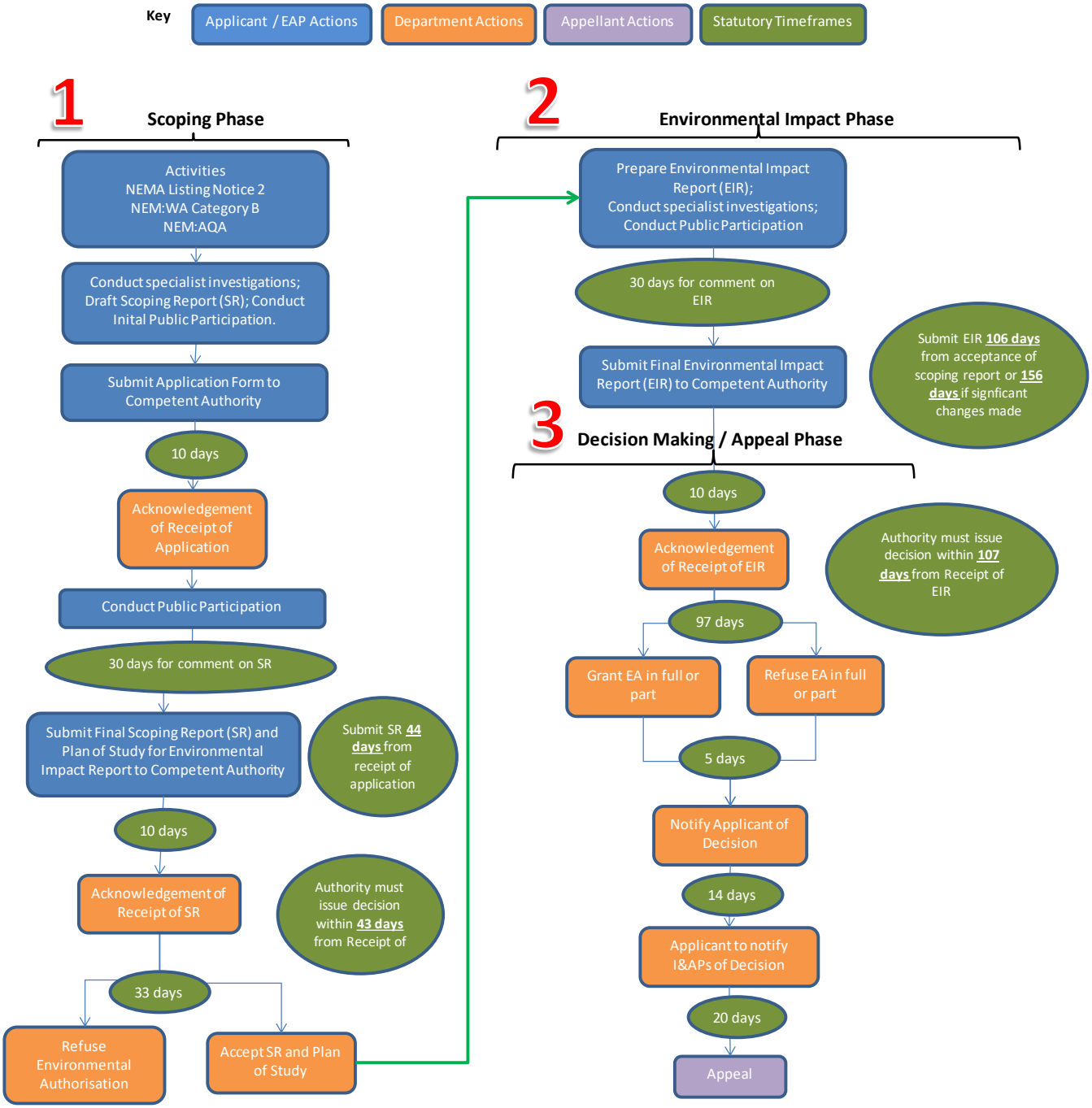

Figure 9: Flow diagram of the Scoping and EIA process.

3. The National Environmental Management: Air Quality Act, 2004

The National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) [NEM: AQA] was promulgated to give effect to Section 24(b) of the Constitution in order to enhance the quality of ambient air for the sake of securing an environment that is not harmful to the health and wellbeing of people. Sections 21, 22, 36 to 49, 51(1)(e), 51(1)(f), 51(3), 60 and 61 of the Act came into effect on 31 March 2010. These sections relate mainly to the atmospheric emissions licensing provisions. A list with activities and associated minimum emission standards identified in terms of Section 21 requiring Atmospheric Emissions Licenses to operate was promulgated on 31 March 2010.

No activities listed in terms of this act have been identified for this proposed development. If any future tenants trigger the requirement for an Atmospheric Emissions License, then the onus will be upon the tenant to comply with the requirements of the NEM: AQA.

4. The National Environmental Management: Biodiversity Act, 2004

Chapter 4 of NEMBA deals with threatened and protected ecosystems and species and related threatened processes and restricted activities. The need to protect listed ecosystems is addressed (Section 54). Section 73 deals with Duty of Care relating to invasive species, while Section 76(2) calls for development of invasive species monitoring, control and eradication plans by all organs of state in all spheres of government, as part of environmental management plans required in terms of Section 11 of NEMA.

A Botanist and Freshwater specialist were appointed to assess the potential impact of the proposed development on the biodiversity of the site. These assessments have considered the requirements, information and data regulated by NEM: BA.

4.1. The National Spatial Biodiversity Assessment, 2011

The National Spatial Biodiversity Assessment, 2011 (NBA) assesses the state of South Africa's biodiversity, across terrestrial, freshwater, estuarine and marine environments, emphasising spatial (mapped) information for both ecosystems and species. The NBA is central to fulfilling the South African National Biodiversity Institute's (SANBI) mandate in terms of the NEM: BA to monitor and report regularly on the state of biodiversity and includes two headline indicators that are assessed across all environments: ecosystem threat status and ecosystem protection level. Information from the NBA can thus be used to streamline environmental decision-making, strengthen land-use planning, strengthen strategic planning about optimal development futures for South Africa, and identify priorities for management and restoration of ecosystems with related opportunities for ecosystem-based job creation.

4.2. The Western Cape Biodiversity Spatial Plan, 2017

The Western Cape Biodiversity Spatial Plan, 2017 (WCBSP) is a core component of the Provincial Biodiversity Strategy and Action Plan (PBSAP) as it is used to spatially prioritise conservation action (such as protected area expansion or investment into ecological infrastructure), or to feed spatial biodiversity priorities into planning and decision-making in a wide range of cross-sectoral planning processes and instruments such as development applications in terms of the NEMA, the Spatial Planning and Land Use Management Act (SPLUMA), the Western Cape Land Use Planning Act (LUPA), the Provincial Spatial Development Framework (PSDF) and municipal integrated development plans (IDPs), spatial development frameworks (SDFs), land use management schemes and environmental management frameworks (EMFs).

The WCBSP replaces all the earlier systematic biodiversity planning products for the Western Cape (including the Western Cape Biodiversity Framework products of 2010 and 2014) and should be used as the official reference for biodiversity priority areas to be taken into account in land use planning and decision-making in the province.

5. The National Environmental Management: Waste Act, 2008

National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) [NEM: WA] establishes requirements and procedures for the regulation of waste management in South Africa. In addition to standards which may be set for waste management activities, the process of listing and licensing of waste management activities is the primary means by which these activities are regulated.

Listing of waste management activities, which is the first step in the process, establishes either a particular licensing regime for that activity, or a set of standards that need to be adhered to when engaging in the activity in the event that the activity is regarded as an acceptable use. The list of waste activities which was gazetted on 3 July 2009 and differs from the existing descriptions in the NEM: WA in that it specifies activities involving quantities and types of waste with respect to which licensing measures apply. Two categories of waste management activities (referred to as Category A and Category B) were promulgated with Category A requiring a Basic Assessment process and Category B requiring a Scoping and EIA process as prescribed in terms of the EIA Regulations, 2014 (as amended).

The proposed development does not constitute any listed waste management activities and as such does not require a Waste Management Licence prior to commencing operations. If any future tenants trigger the requirement for a Waste Management Licence, then the onus will be upon the tenant to comply with the requirements of the NEM: WA.

In the case of the proposed development, an integrated waste management system must be adopted, which includes waste minimisation, waste recycling and the proper storage and disposal of waste, which does not impact of the health of the environment and human health.

6. The National Heritage Resources Act, 1999

The protection and management of South Africa's heritage resources are controlled by the National Heritage Resources Act, 1999 (Act No. 25 of 1999) [NHRA]. Heritage Western Cape (HWC) is the provincial heritage authority in the Western Cape.

A notification of intent to develop (NID) in terms of Section 38(1) of the NHRA was submitted to HWC. HWC responded to the NID in a letter dated 07 September 2022, stating that there is no reason to believe that the proposed mixed-use development will impact on heritage resources, no further action under Section 38 of the NHRA is required.

*Refer to **HWC's response to the NID** included in **Appendix E1** of this report.*

7. The National Water Act, 1998

The fundamental objective of the National Water Act, 1998 (Act No. 36 of 1998) ("NWA") is to ensure the protection of the aquatic ecosystems of South Africa's water resources. The NWA includes provisions requiring that a water use license be issued by the DWS before a landowner engages in any activity defined as a water use in terms of the NWA.

The proposed development triggers the Section 21 water use activities in terms of the NWA:

- Section 21(c) diverting or impeding flow in a water course;
- Section 21 (e) engaging in a controlled activity;
- Section 21 (f) discharge to a watercourse; and
- Section 21(i) changing the bed, banks, course, or characteristics of a water course.

In terms of the Agreement for the One Environmental System (Section 50A of the NEMA and Sections 41(5) and 163A of the NWA) the process for a Water Use License Application (WULA) and EIA must be aligned and integrated with respect to the fixed synchronised timeframes, as prescribed in the EIA Regulations, 2014 (as amended) and the 2017 WULA Regulations (GN R. 267 of 24 March 2017). This Scoping and EIA process will therefore take cognisance of this and will be carried out accordingly.

An application for a Water Use Authorisation in terms of Section 21 of the NWA will be undertaken. Proof of submission of such an application will be included in the EIA Report.

8. Mineral and Petroleum Resources Development, 2002

The Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA) regulates the prospecting for and the optimal exploitation, processing, and utilization of minerals; to regulate the orderly utilization and the rehabilitation of the surface of land during and after prospecting and mining operations; and to provide for matters connected therewith.

During the EAPs initial investigations, it has come to their attention that the property has been extensively disturbed in the past and has recently been mined for sand and stones. It was confirmed that the previous landowner (that is now deceased) did not obtain approval in terms of the MPRDA before commencing with the mining activities on the site.

*The EAP reached out to the competent authority in relation to mining activities, the Department of Mineral Resources and Energy (DMRE), to confirm if any action will be taken to rectify the illegal mining activities. DMRE confirmed via email on 28 November 2022 (see **Appendix E4**) that since the person responsible for illegal mining activities is now deceased, the DMRE will not pursue the matter or take any further action. The proposed "Residential and Mixed-used Development" is supported by DMRE.*

Furthermore, it was also established with the DEA&DP Directorate: Law Enforcement, that since the person who undertook the illegal activities is deceased from their perspective there is no one to pursue or to be held accountable in terms of NEMA.

9. Subdivision of Agricultural Land Act, 1970

The Subdivision of Agricultural Land Act, 1970 (Act No. 70 of 1970), referred to as "Act 70 of 1970", stipulates that agricultural land shall not be subdivided nor that any undivided share in agricultural land shall vest in any person, if such part is not already held by any person.

An application for consent from the Department of Agriculture, Land Reform and Rural Development was submitted for exclusion from the provisions of Act 70 of 1970 of the land portions within the City of Cape Town urban edge as proposed in the Northern Integrated District Spatial Development Framework (DSDF) of 2021.

*Proof of submission of the application is included in **Appendix E5** of this report.*

*Letters of support for this application have also been obtained from the Western Cape Department of Agriculture. See **Appendix E6** of this report.*

10. The Protection of Personal Information Act, 2013 (Act No. 4 of 2013)

The purpose of the Protection of Personal Information Act, 2013 (Act No. 4 of 2013) (POPIA) is to protect people from harm by protecting their personal information. Doug Jeffery Environmental Consultants is committed to respecting personal privacy and protecting the quality and integrity of personal information. Doug Jeffery Environmental Consultants manages personal information in accordance with this privacy policy and in compliance with the relevant data protection and privacy laws and regulations in areas where it operates.

The EAP will invite potential Interested and Affected Parties ("I&APs") to register as an I&AP by providing their details to be included in the register to comply with Regulation 42 of the EIA Regulations, 2014 (as amended).

11. Guideline Documents

There are several guideline documents, and conservation plans that must inform the work of both the environmental practitioner and the various specialists. The principles contained in these documents will be incorporated into the various aspects of the study. The Guideline Documents applicable to this proposal is described below.

11.1. Guideline on Need and Desirability

Although there are a number of applicable guidelines the Guideline on Need & Desirability is considered important because it relates directly to the questions of rural development and how/if it should be done.

The Guideline on Need and Desirability (2017) compiled by the Western Cape Department of Environmental Affairs and Development Planning ("DEA&DP") contains information on best practice and how to meet the peremptory requirements prescribed by the legislation and sets out both the strategic and statutory context for the consideration of the need and desirability of a development involving any one of the listed activities specified in the EIA Regulations, 2014 (as amended). Need and desirability is based on the principle of sustainability, set out in the Constitution and in NEMA, and provided for in various policies and plans, including the NDP.

Addressing the need and desirability of a development is a way of ensuring sustainable development – in other words, that a development is ecologically sustainable and socially and economically justifiable – and ensuring the simultaneous achievement of the triple bottom-line.

Other relevant guidelines are also considered applicable and listed below.

11.2. Other Guidelines and Relevant Documents

The following guidelines have been used to inform the process to date as well as relevant specialist studies, although this is not an exhaustive list it does highlight those develop by the National Department of Environmental Affairs (DEA) and DEA&DP inter alia, the following:

- Guideline on Need and Desirability (DEA, 2017)
- Publication of Public Participation Guideline, 2012 (GN No. 807 of 10 October 2012)
- Guideline for the review of specialist input in EIA processes (DEA&DP, 2005)
- Guideline for determining the scope of specialist involvement in EIA processes (DEA&DP, 2005)
- Guideline for involving biodiversity specialists in EIA processes (DEA&DP, 2005)
- Guideline for Involving Hydrogeologists in EIA Processes (DEA&DP, 2005)
- Guideline for Environmental Management Plans (DEA&DP, 2005)
- EIA Guideline and Information Document Series (DEA&DP, 2013)
- Generic Terms of Reference for EAPs and Project Schedules
- Guideline on Public Participation
- Guideline on Alternatives
- Guideline on Need and Desirability
- Guideline on Exemption Applications
- Guideline on Appeals
- DEA&DP's Circular EADP 0028/2014: One Environmental Management System
- National Environmental Screening Tool
- NEMA Procedures to be Followed for the Assessment and Minimum Criteria for Reporting of Identified Environmental Themes in terms of Section 24(5)(a) and (h) of the National Environmental Management Act, 1998, when Applying for Environmental Authorisation [GN No. 648 of 10 May 2019].

SECTION D: PLANNING CONTEXT

This section is based on and must be read in conjunction with the information contained in the **Town Planning Report** included in **Appendix F5** of this report.

1. Land Use Zoning

An application was made to the Drakenstein Municipality for the following in terms of the Drakenstein Municipality: Municipal Land Use Planning By-Law, 2015:

- The **rezoning** of Portion 11 of the Farm 1426, Paarl from Agriculture Zone to Subdivisional Area, in terms of Section 15(2)(a) of the Drakenstein Municipality: Municipal Land Use Planning By-Law, 2015.

- The **subdivision** of Portion 11 of the Farm 1426, Paarl into 236 portions in terms of Section 15(2)(d) of the Drakenstein Municipality: Municipal Land Use Planning By-Law, 2015, in accordance with the proposed Subdivision and Zoning Plan with plan number 22013-003, Rev 4, dated 2022-10-17, to create the following:
    - 216 x portions zoned Conventional Housing Zone
    - 1 x portion zoned Mixed-Use Zone
    - 11 x portions zoned Open Space Zone
    - 5 x portions zoned Transport Zone
    - 3 x portions zoned Utility Zone

- Council's **consent** to permit 'Utility Plants' on proposed portions 233 and 234 of the proposed subdivision of Portion 11 of the Farm 1426, Paarl, in terms of Section 15(2)(o) of the Drakenstein Municipality: Municipal Land Use Planning By-Law, 2015, to permit a temporary package plant and electrical substation, respectively.

2. Consistency with Planning Legislation (SPLUMA & LUPA)

Both the Spatial Planning and Land Use Management Act No.16 of 2013 (SPLUMA) and the Western Cape Land Use Planning Act No.3 of 2014 (LUPA) prescribes a set of land use planning principles to guide land use planning. The proposed development adheres to the land use principles relevant to development proposal as follows:

- **Spatial Justice** – The proposed development will ensure the improved access to, and utilization of, land. The proposal is deemed to be the best use of the property in the context of the site's location and the Municipality's spatial development framework. Given the lack of accessibility to public transportation services, the cost of services and long distance to the nearest hub of employment opportunities, the site is not conducive for low-cost housing provision.

- **Spatial Sustainability** – The proposed development is spatially compact, resource-frugal and within the fiscal, institutional and administrative means of the local authority. As demonstrated in this report, the property is not deemed to be high potential agricultural land that should be protected. It also does not impact on natural habitat with high biodiversity importance, provincial heritage and tourism resources or areas unusable for development. It therefore supports the principle of spatial sustainability.

- **Efficiency** – The proposed development optimizes the use of existing resources and infrastructure as it densifies development on a site within the approved Municipal urban edge. It also contributes to an integrated urban area as the phenomenon of urban sprawl is countered due to the site being within the Municipal urban edge, with the surrounding properties (which are suitable for development) envisaged to be developed in future.

- **Good administration** – The proposed development is aligned with the provincial and municipal spatial development frameworks and land use policies.

3. Consistency with Spatial Development Frameworks and Council Policies

3.1. Western Cape Provincial Spatial Development Framework

The Western Cape Spatial Development Framework (PSDF) was approved by the executive authority in 2014 and endorsed by the Provincial Cabinet to replace the previous PSDF. The PSDF puts in place a coherent framework for the province's urban and rural areas that (1) gives spatial expression to the National and Provincial development agendas, (2) serves as basis for coordinating, integrating and aligning 'on the ground' delivery of National and Provincial departmental programmes, (3) supports the municipalities to fulfil their municipal planning mandate in line with the National and Provincial agendas and (4) communicates government's spatial development intentions to the private sector and civil society.

The PSDF applies the following spatial principles:

- **Spatial justice** – A socially just society is based on the principles of equity, solidarity, and inclusion. Past spatial and other development imbalances should be redressed through improved access to and use of land by disadvantaged communities.
- **Sustainability & Resilience** – Land development should be spatially compact, resource frugal, compatible with cultural and scenic landscapes, and should not involve the conversion of high potential agricultural land or compromise ecosystems.
- **Spatial Efficiency** – Relates to the form of settlements and use of resources – compaction as opposed to sprawl, mixed-use as opposed to mono-functional land uses, residential areas close to work opportunities as opposed to dormitory settlement and prioritisation of public transport over private car use.
- **Accessibility** – Improving access to services, facilities, employment, training and recreation, and safe and efficient transport modes.
- **Quality and Liveability** – A quality built environment is one that is legible, diverse, varied, and unique. Legible built environments are characterised by the existing of landmarks such as notable buildings and landscaping, well-defined public spaces, and navigable street networks.

The PSDF's policy framework covers Provincial spatial planning's three interrelated themes, namely (1) Sustainable use of the Western Cape's spatial assets, (2) Opening-up opportunities in the Provincial space-economy, and (3) Developing integrated and sustainable settlements.

Sustainable Use of Spatial Assets

The PSDF emphasise that the province's biodiversity and agricultural resources should be protected as the unique scenic and cultural landscapes, which underpin the tourism economy, are being eroded and fragmented from inappropriate development.

The site is situated within the proclaimed Municipal urban edge and has therefore been demarcated by the Municipality for urban development. It has also been confirmed by a suitably qualified soil scientist that the site has low agricultural potential due to the soil conditions and as it has been heavily disturbed and excavated. The site does not form part of a critically biodiversity area (as confirmed by the environmental specialists) and has low environmental significance.

The proposed development is designed to remain sensitive to the surrounding rural setting. Protected environmental elements in the surrounding area will not be affected.

Opening-up opportunities in Space-economy

In response to the Western Cape's historical and recent economic challenges, the Western Cape Government has made growing the economic its primary objective. To this end the PSDF focuses on opening-up opportunities in the Provincial space-economy. Amongst the key concepts in the PSDF's

space-economy policies are to build 'land assembly' capacity in the urban space-economies, incentivize mixed land use and economic diversification in urban and rural land markets, and to prioritize the roll-out of the 'greener' economy by promoting rural economic diversification by using off-grid infrastructure technologies.

The proposed development will attract significant investment in the local area and contribute towards mixed-use development in the area, thereby facilitating in the diversification of the local economy of the Drakenstein South region. It will also have a high emphasis on off-grid infrastructure technologies and towards the more sustainable use of resources.

Developing Integrated and Sustainable Settlements

The PSDF promotes smart growth of urban settlements by ensuring efficient use of land and infrastructure by containing urban sprawl and prioritising infill, intensification, and redevelopment within settlements. It further encourages the increase of densities of settlements and dwelling units in new housing projects.

The proposed development responds positively to this strategy of the PSDF as it facilitates more efficient use of land with the proclaimed Municipal urban edge. The proposed development will allow development at an appropriate density as well as a mix and intensification of land uses.

It is thus evident that the proposed development is consistent with the policies of the PSDF.

3.2. Drakenstein Spatial Development Framework

The Drakenstein Municipality Spatial Development Framework (SDF) was approved by the Municipality in 2022 to provide planning systems and approaches through which the Municipality can achieve its spatial development vision. The SDF seeks to influence the overall spatial distribution of the current, and future, land use within a municipality, in order to give effect to the vision, goals and objectives of a municipal Integrated Development Plan (IDP).

The SDF divides the municipal area into different spatial focus areas (SFA). The site is situated within Special Focus Area 4: Drakenstein South, which include the area south of the N1 and east of the Berg River (excluding Simondium).

According to the SDF, this area is under pressure for the development of high-income, low density, gated community residential developments. This SFA is strategically located and offers good access to the rest of the region. The SFA is predominantly characterized by agricultural and natural land uses, but large portions of the SFA are already characterized by large-scale, high-income residential developments.

Currently, the role that this SFA fulfils is centred around low-density residential development. Future development focus should, however, be focused on an efficient and integrated urban structure, inclusive of a variety of housing typologies, commercial opportunities, and social and community facilities with well-connected open spaces that caters for different income groups.

Extensive bulk infrastructure investment is required, as well as investment in roads and transport to ensure mobility and connectivity with other main urban areas. An appropriate return on investment for the Municipality is required. Focus should also be placed on creating an efficient urban structure through the incorporation of a high mix of different housing typologies and community facilities, which must be well connected through appropriate smaller nodes on the R45 and R301.

Amongst the spatial interventions for this SFA, the SDF promotes corridor development with appropriate intensification along the R301 and R45 routes, with the provision of appropriate and sensitive convenience nodes at strategic locations along the R301 road. Future housing projects that facilitate a range of housing typologies, with community facilities and a well-connected movement network, is encouraged. The Watergat/Schuurmansfontein Integration Route is identified as an important route to enable integration between the east and west of this SFA.

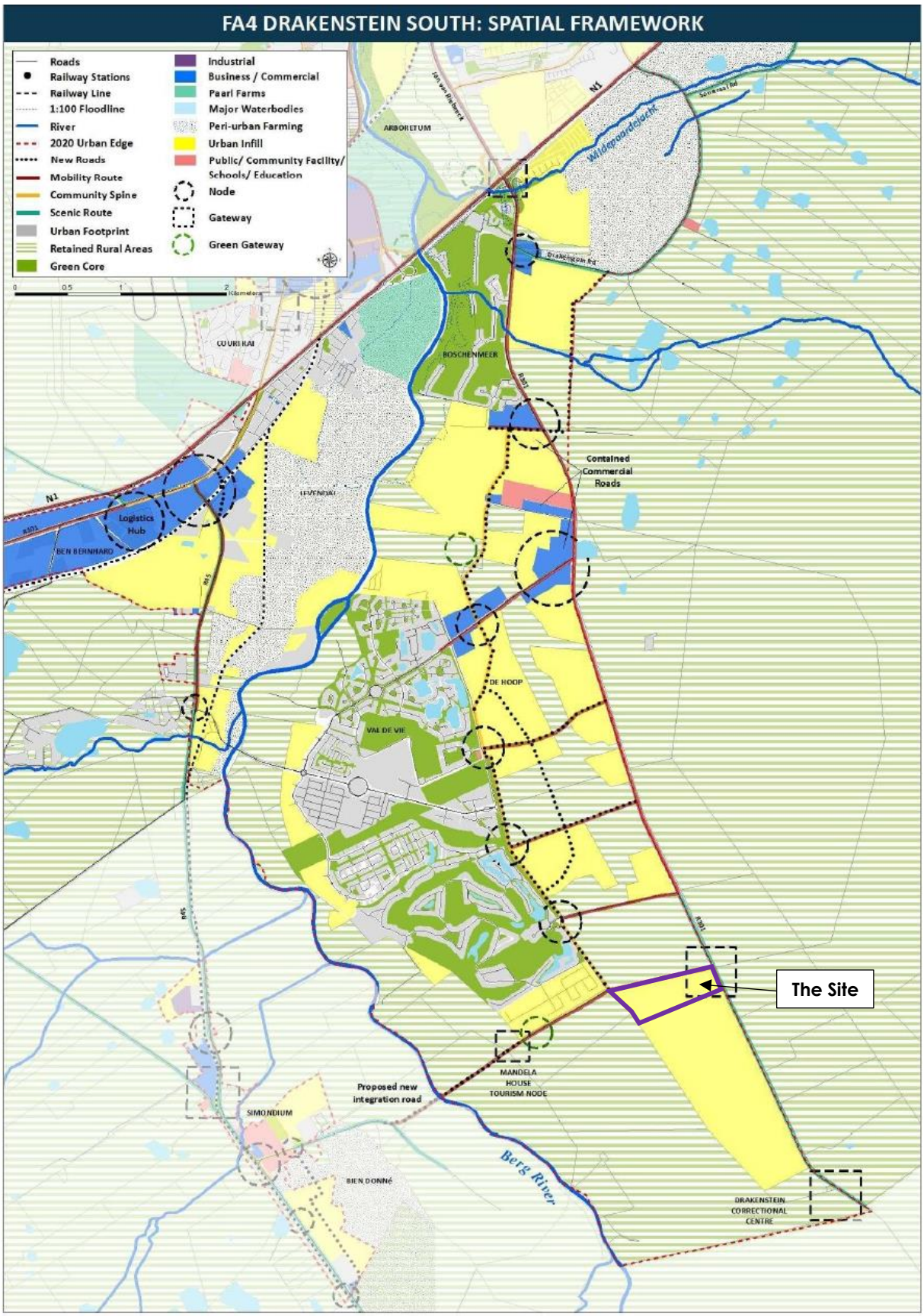

Figure 10: Spatial Focus Area Map – SFA4 Drakenstein South.

According to the Spatial Focus Area Map, the site is situated within the Municipal urban edge and is delineated for "Urban Infill" (refer to **Figure 10**). This includes all existing agricultural zoned properties along the R301, south of the site up to the Drakenstein Prison. This entire area is thus planned to accommodate urban development as part of this SFA's development framework.

The proposed development is thus deemed to be aligned with the Drakenstein SDF for the following reasons:

- The site is situated within the Municipal urban edge and within an area delineated for Urban Infill where higher densities is promoted.
- The proposed development supports the SDF's proposal of creating a gateway at the R301/Schuurmansfontein Road intersection. An opportunity is created to enhance the sense of place at this gateway location (with new buildings and landscaping).
- The proposal will contribute to the provision of a variety of housing typologies and commercial opportunities.
- It will assist in creating an efficient urban structure, with higher-density mixed-use development along the R301 corridor.
- The proposal supports corridor development along the R301.
- The proposed development will contribute towards much-needed infrastructure investment in the area.
- The site has low agricultural potential. The proposed development will therefore not result in the loss of high-potential agricultural land.
- The proposal will not affect the integrity of the nearby Mandela Prison House facility.
- The proposed development will not affect the surrounding rural landscape, specifically towards the east of the R301.

3.3. Drakenstein Environmental Management Framework

The Environmental Management Framework (EMF), 2022 of the Drakenstein Municipality was adopted and gazetted on 11 November 2022. As mentioned in the previous section, Portion 11 of the Farm 1426, Paarl is located inside the urban edge, and it has been earmarked for "Urban Infill". Hence, it could be argued that it is aligned with the Drakenstein EMF.

The SDF Elements identified in the Drakenstein South: Environmental and Heritage Implications map (**Figure 11**) that is applicable for consideration in this process are provided below.

Environmental Protection

According to the Drakenstein South: Environmental and Heritage Implications map (**Figure 11**) parts of the site is indicated as CBAs and ESAs.

The aim of the Drakenstein Municipality is to –

- Protect CBAs and ESAs and incorporate CBAs into Protected Areas network.
- Connect green corridors and integrate natural areas with urban green areas.
- Prevent agricultural encroachment into floodplains and riparian areas.
- Maintain and protect natural areas and ecological corridors across farms.
- Encourage environmental education and non-consumptive low-impact eco-tourism.
- Restrict up-slope development on Wemmershoek and Simonsberg Mountains.
- Declaration of municipal areas as stewardship sites/formal conservation areas.
- Update Air Quality Management Plan (includes procuring of air quality monitoring equipment).

The Terrestrial Biodiversity of the site is however entirely transformed. The proposed development will therefore not affect any terrestrial biodiversity areas of conservation importance. A Site Sensitivity Verification and Terrestrial Biodiversity Compliance Statement, that assesses the potential impact on terrestrial biodiversity associated with the proposed development, will be provided in the EIA phase.

No significant wetland habitat of conservation importance occurs within the site that needs to be retained. There is, however, still evidence of the water pathways through the site. The recommendation regarding an aquatic ecological corridor and wetland habitat has been taken into consideration in the proposed layout.

Watercourses

Although the Drakenstein South: Environmental and Heritage Implications map (**Figure 11**) does not indicate any watercourses on the site, some wetland areas were identified on the site.

The aim of the Drakenstein Municipality is to –

- Protect freshwater ecosystems and prevent further loss of wetlands.
- Apply buffer areas around wetlands and core areas.
- 1:100-year floodline determination.
- Extend the river setback, to retain an agricultural buffer along the Berg River.

An Aquatic Biodiversity Impact Assessment will be provided in the EIA phase to assess the potential impacts the proposed development will have on aquatic features.

Agricultural Land

The site is currently mostly vacant. The only structures on the property are the dwelling house and associated outbuildings in the south-eastern corner of the site. There are no active farming activities being undertaken on the site.

The aim of the Drakenstein Municipality is to –

- Promote conservation agriculture.
- Retain and improve the relationship between residential developments and surrounding agricultural land.
- Prevent further loss of high-potential agricultural land.
- Protect agricultural land from any further subdivision into urban townships or small-holding areas.

The site has been significantly disturbed and excavated. Topsoil has been lost and the land surface has been lowered to below the water table across much of the site. The site therefore no longer has any crop production potential.

A Site Sensitivity Verification and Agricultural Compliance Statement will be provided in the EIA phase to assess whether or not the proposed development will have an unacceptable agricultural impact or not.

An application for consent from the Department of Agriculture, Land Reform and Rural Development was submitted for exclusion from the provisions of Act 70 of 1970 of the land portions within the City of Cape Town urban edge as proposed in the Northern Integrated District Spatial Development Framework (DSDF) of 2021.

*Proof of submission of the application is included in **Appendix 5** of this report.*

Heritage and Scenic Landscapes

The site is located within the Lower Berg River Valley Broad Landscape Character Zone.

The aim of the Drakenstein Municipality is to –

- Maintain, promote, and protect the integrity of historically significant sites, precincts, places, and landscapes, such as Mandela Prison House and historical homesteads in the rural landscape.
- Safeguard local landscape and scenic value and protect mountain view sheds.
- Retain the rural and natural character of the area by prohibiting development on the eastern side of the R301 road especially within rural landscapes and rural-urban interfaces.
- Designate Heritage Areas.
- Complete the heritage register for the Municipality.
- Develop a Cultural Heritage Strategy.

As stated in Section C(6) a NID in terms of Section 38(1) of the NHRA was submitted to HWC. HWC responded to the NID in a letter dated 07 September 2022, stating that there is no reason to believe that the proposed mixed-use development will impact on heritage resources, no further action under Section 38 of the NHRA is required.

A Visual Impact Assessment was however requested by the Drakenstein Municipality as part of the land use zoning application. The VIA must consider the potential impact of the proposed development on the R301 interface.

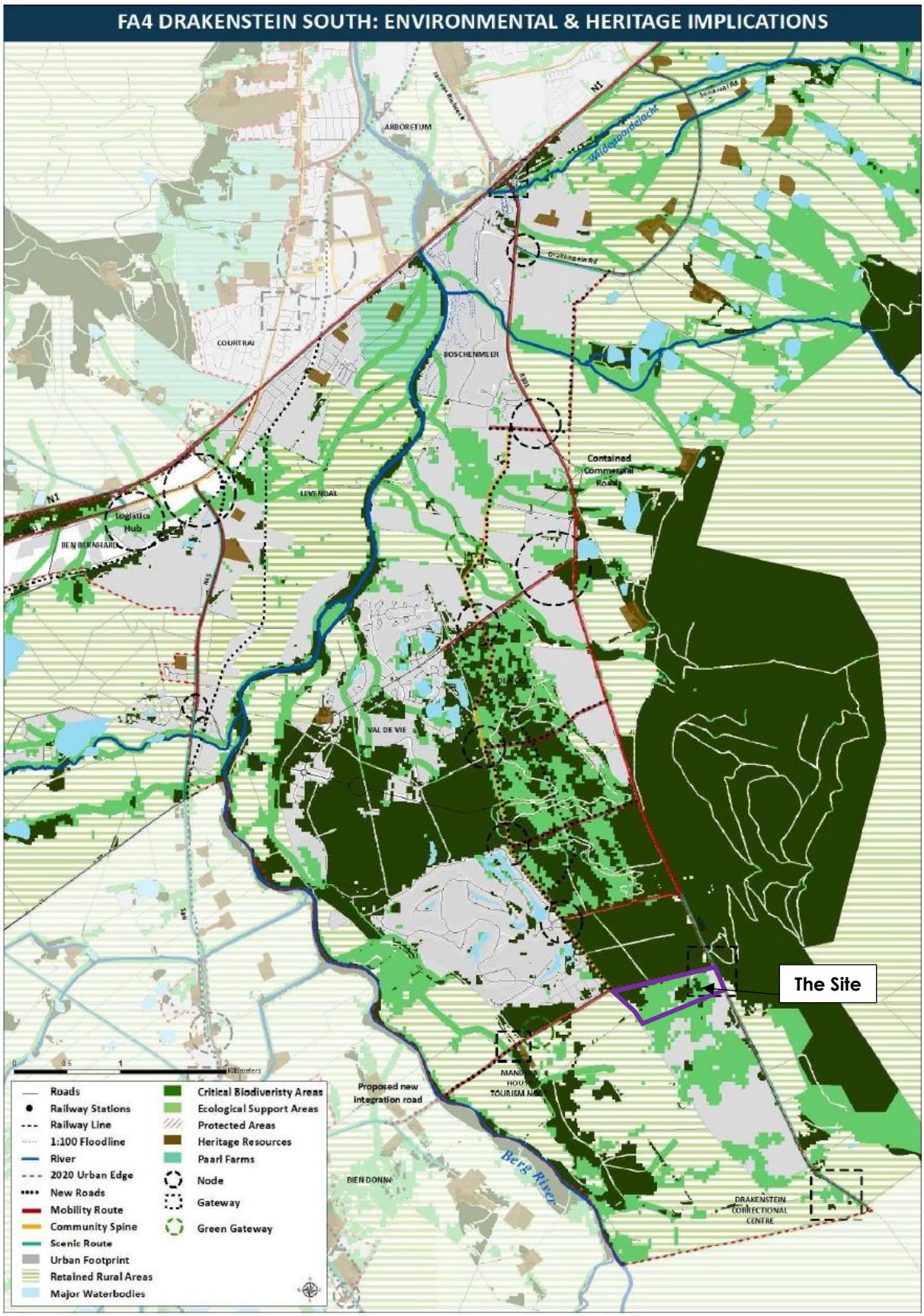

Figure 11: Environmental and Heritage Implications – SFA4 Drakenstein South.

SECTION E: DESCRIPTION OF THE ENVIRONMENTAL ATTRIBUTES OF THE SITE

1. Character and Land Use of the Surrounding Area

The surrounding area currently reflects a rural character, with the surrounding area consisting of relatively large properties that are mostly covered by natural vegetation or small-scale rural/light industrial land uses. The views of the surrounding landscape and Wemmershoek mountain are also prominent.

The character of the area is however expected to change significantly in the near future as the area west of the R301 has been earmarked by the Drakenstein Municipality for urban development. Many of the properties in the vicinity of the site have already initiated development processes (such as The Acres to the west), or have recently obtained land use approval, but have not yet commenced with construction activities. This area will therefore adopt an urban development character within the next few years, with developments of various forms being anticipated for this corridor.

Due to the area east of the R301, which is outside of the Municipal urban edge and not earmarked for urban development, and the views of the surrounding Wemmershoek mountains, the area will retain a relationship with the surrounding natural landscape.

2. Land Use of the Site

2.1. Historical Land Use of the Site

Originally the site would have supported Swartland Alluvium Fynbos, a critically endangered vegetation type. Historical imagery from 1973 (see **Figure 12**), however, shows that the property was farmed intensively.

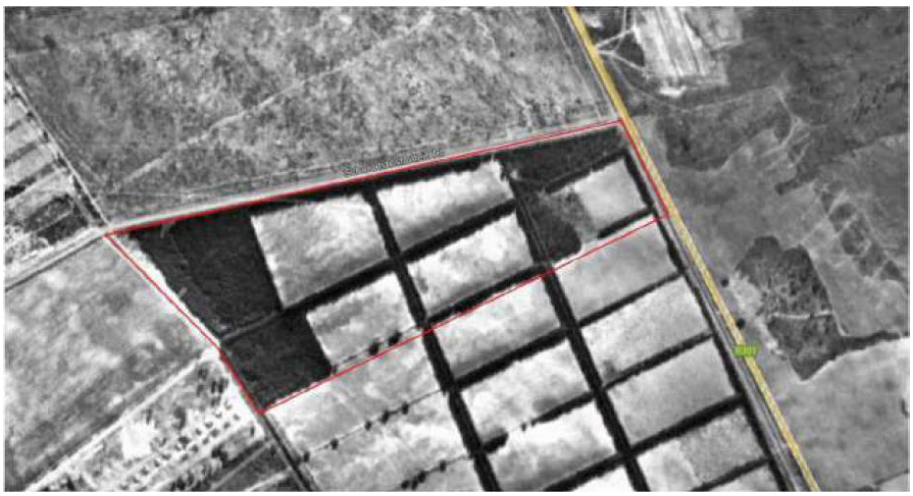

Figure 12: Aerial image, taken in 1973, showing intensive agricultural development and plantations of Pine trees on Portion 11 of Farm 1426, Paarl.

Google Earth aerial imagery shows further disturbance of the site began around 2013 and mining activities commenced (see **Figure 13**).

Figure 13: Google Earth aerial image from 2013.

By 2020 the site was largely mined and any indigenous vegetation that was present on the site was cleared (see **Figure 14**).

Figure 14: Google Earth aerial image from 2020.

2.2. Current Land Use of the Site

The site is currently mostly vacant. Although the site supports indigenous vegetation, it has been completely transformed by farming and mining activities in the past.

The only structures on the property are the dwelling house and associated outbuildings in the south-eastern corner of the site. These structures currently derive access from an existing vehicular access from the R301 (refer to **Figure 15**).

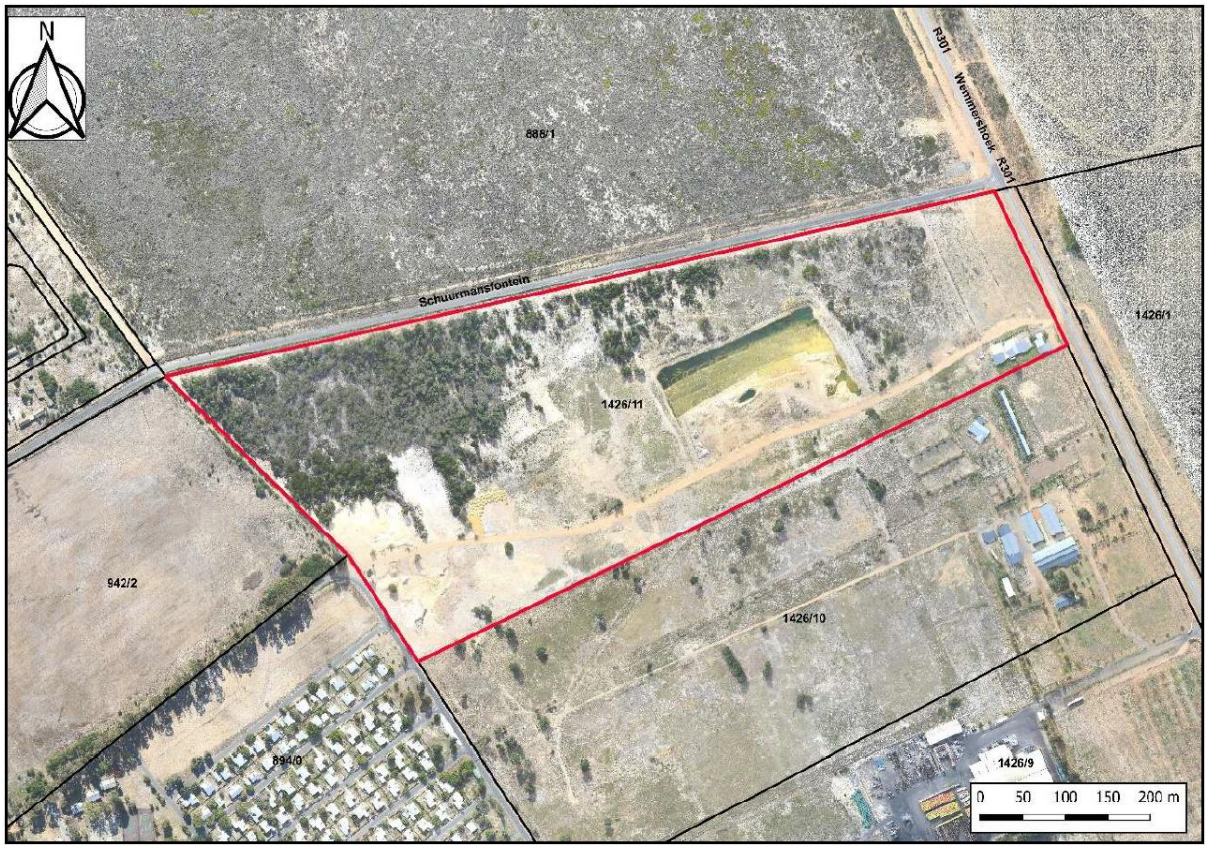

Figure 15: Aerial image of the site.

3. Geology and Soil

The proposed development site is situated in between the Cape Granite Suite to the northwest and northeast and the Table Mountain Group (TMG) in the east. In the middle of the two mountains the greywacke and shales from the Moorreesburg Formation are covered by quaternary deposits that is made up of scree, loam/sandy soil, and also alluvium. There are prominent fault sets in the TMG formations east of the study area as well as in the Moorreesburg formation, one of which intersects the southwestern corner of the proposed development site.

The proposed development site is underlain by a surficial sand cover (quaternary deposits) and deeper by greywacke and phyllite of the Moorreesburg Formation, in the Malmesbury Group. The fractured greywacke of the Moorreesburg Formation constitutes the local fractured bedrock aquifer. In the western lower lying portion of the study site weathered greywacke and phyllite outcrops are found. The thickness of the quaternary deposits varies across the site, increasing towards the north and constitute a shallow perched aquifer essential to local vegetation.

4. Hydrogeology and Groundwater

4.1. Aquifer Yield and Quality

According to the 1:500 000 scale groundwater map of Cape Town (3318) the proposed development site hosts a fractured aquifer (i.e. the bedrock constitutes an aquifer) with an average borehole yield of 0.1 to 0.5ℓ/s in the west and 2.0 to 5.0 ℓ/s in the east (**Figure 16**). The yields of known boreholes within a 1km radius of the proposed development site range between 2.5 and 8.5ℓ/s. This exceeds the estimated yield of the western aquifer in which all the known boreholes are located.

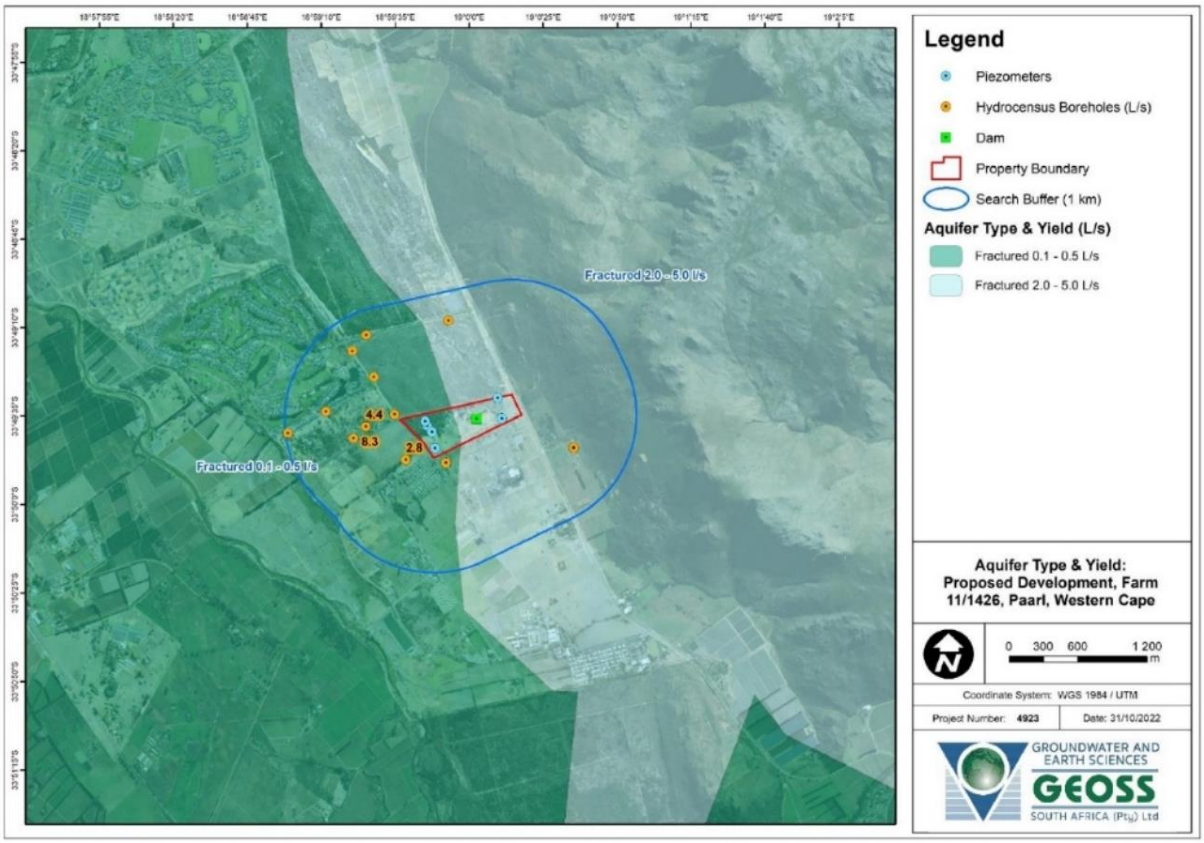

Figure 16: Regional aquifer yield from the 1:500 000 scale groundwater map (3318 –Cape Town) (DWAF, 2005), showing augering holes, hydrocensus boreholes and borehole yields.

The groundwater map indicates the fractured aquifer has a water quality as indicated by electrical conductivity (EC) in the range of 0 – 70 mS/m which, in terms of domestic supply, is Class 0 (i.e., ideal). All known boreholes in the area as well as the samples collected during the hydrocensus fall within this range.

The national scale groundwater vulnerability map for South Africa, shows that groundwater under the fractured aquifer has a "very high" vulnerability to surface based contaminants (**Figure 16**).

This "very high" rating is likely associated with the overlying primary aquifer constituted by low lying alluvial deposits. The deeper underlying fractured aquifer is overlain by a thick layer of weathered phyllite. This weathered layer is likely to provide protection against point and non-point sources of contamination and it is likely that vulnerability rating of the underlying fractured aquifer is "low."

The shallow overlying perched primary aquifer is at risk of contamination. Most groundwater users utilise groundwater from the fractured rock aquifer and are protected by the clay layer/weathered zone.

4.2. Groundwater

It was established that there are some groundwater users surround the proposed development site. Two boreholes located within 500 meters of the proposed development site are utilized for drinking water and livestock watering. The primary use of groundwater in the area is for irrigation.

The boreholes found during the study are high yielding and drilled into the deeper fractured bedrock aquifer with main water bearing fractures between 58 and 112m deep. The groundwater quality is ideal with EC values between 18.2 and 31.3mS/m and pH values near to neutral. The water levels in the boreholes closest to the proposed development site are shallow ranging between 0.95 and 12.8mbgl.

Based on the augured profiles, the elevation of the augured holes and the contour lines presented in **Figure 17**, the general groundwater flow direction in the shallow perched aquifer is in a north-western direction. The flow direction in the fractured rock aquifer, based on measured water levels at several boreholes, is interpolated to be westerly (Bayesian interpolation).

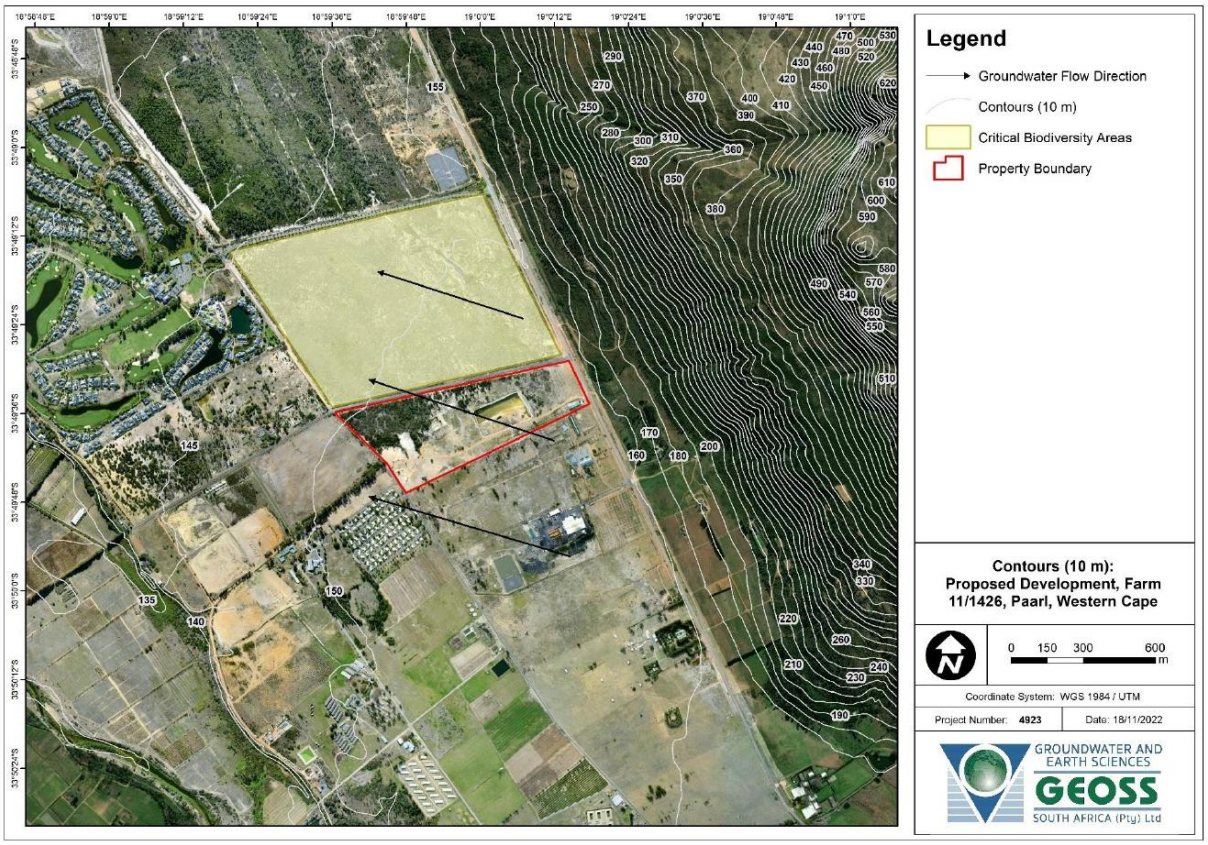

Figure 17: Local 10m topographical contour lines indicating the general land surface gradient.

Figure 17 shows that shallow groundwater flow direction across the site and the critical biodiversity area is inferred to be to the northwest, as indicated by the arrows.

4.2.1. Groundwater Quality

Based on the analysis both the shallow groundwater as well as the groundwater originating from the deeper fractured rock aquifer is of good quality with a low mineral content. No major sources of faecal coliforms or chemical oxygen demand was observed on site.

5. Climate

The climate in this area is typically Mediterranean, with wet winters and dry summers. The mean annual rainfall for the area is 739mm and the evaporation rate is 1292mm. An average monthly precipitation of above 100mm occurs during winter between June and August, while December to March is arid periods.

6. Aquatic Features

The site is located within the upper to middle reaches of the Berg River, within its lower foothill zone (Quaternary Catchment G10C). The Berg River is a perennial river that rises in the Drakenstein and Franschhoek Mountains south of Franschhoek. For much of the catchment above Paarl, the land use is agriculture, with urban development at Franschhoek and peri-urban to urban development upstream and adjacent to the site in Paarl. By the time the river reaches Paarl, it is already severely impacted. Much of the riparian habitat is lost, with many invasive alien plants replacing the indigenous plants, water quality is seriously degraded, and the flow is much altered.

Aquatic features in the area can be expected to be inundated in winter but are mostly dry in summer.

The site itself is located approximately 1km to the east of the Berg River and comprises largely of previously cultivated land. Existing land cover at the site is mapped in the 2020 landcover map (**Figure 18**) as a mix of wetlands areas and the large dam in the centre of the site, fallow land and some crops in the eastern extent and low fynbos shrubland with alien woodland in the western extent.

Figure 18: Landcover map for the site.

The National Freshwater Ecosystem Priority Areas (FEPA) map, Western Cape Biodiversity Spatial Plan (WCBSP) and the City of Cape Town Biodiversity Network (BioNet) mapping was used to identify aquatic features of ecological and biodiversity conservation importance.

6.1. National Freshwater Ecosystem Priority Areas (FEPA)

The Berg River Sub-Catchment, in which the site lies, is not a FEPA River Sub-catchment, and only the dam/large excavated area on the site is mapped as a FEPA Wetland. There are no wetlands mapped within the site for the National Wetland Map version 5 (**Figure 19**).

Figure 19: Freshwater Ecosystem Priority Areas mapping for the site.

6.2. Aquatic Biodiversity Spatial Plan

The WCBSP mapping for the site (**Figure 20**) includes some aquatic Critical Biodiversity Areas (CBA) within the site that are associated with the existing dam, as well as some scattered wetlands on the western side and northern boundary of the site. Much of the area surrounding the aquatic CBA is mapped as aquatic Ecological Support Areas (ESA).

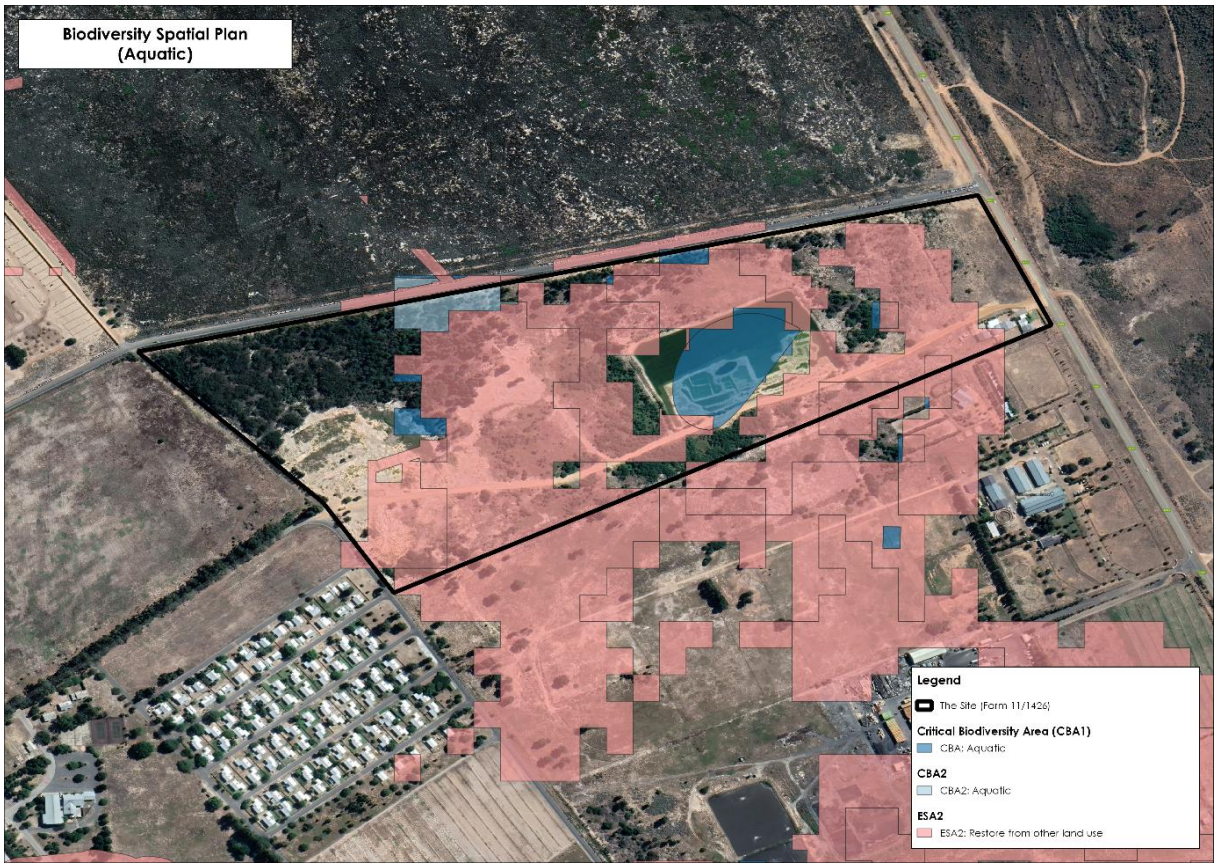

Figure 20: Aquatic Biodiversity Map.

6.3. Historical Watercourses

To understand the modifications on-site, historical aerial imagery has been consulted. Early aerial images of the site, taken in 1942, are before there was any significant disturbance of the site. The image shows three areas that would probably have comprised wetland habitats where there was surface and/or sub-surface movement of water through the site. These are indicated in **Figure 21**.

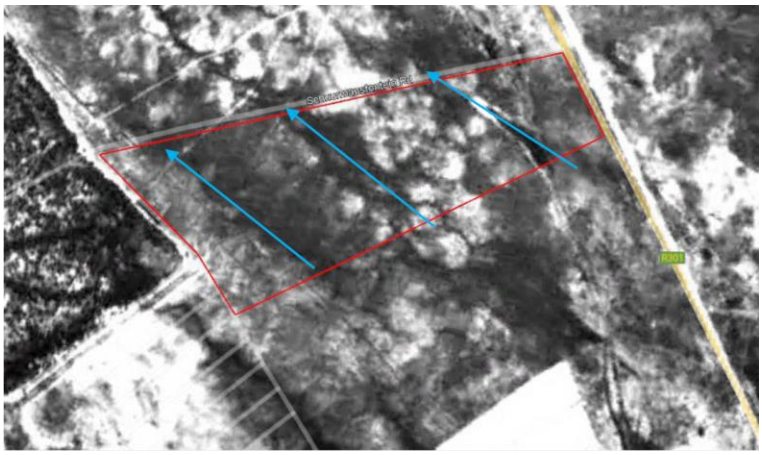

Figure 21: An aerial image of the site taken in 1942. The blue arrows indicate areas where there was additional movement of water through the site and the associated wetland habitats.

A subsequent image from 1973 shows the site to have been completely modified by cultivation (**Figure 22**). The pathways of the movement of water have been highly disturbed, although the western extent appears to have been avoided and was overgrown with alien trees. The eastern path also seems to have been avoided.

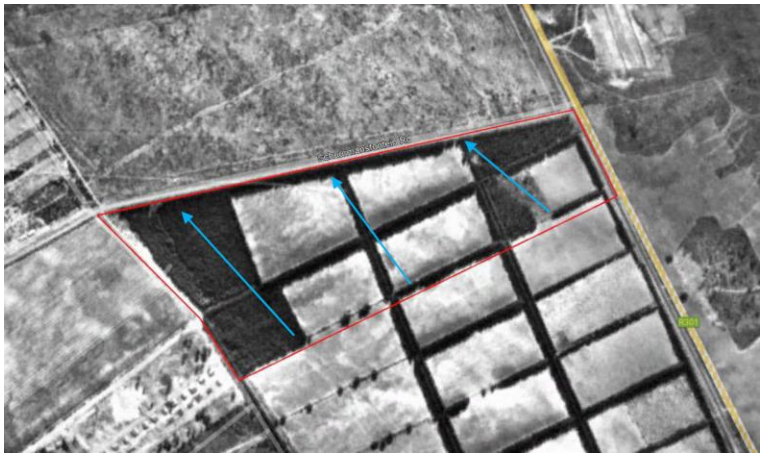

Figure 22: An aerial image of the site taken in 1973. The blue arrows indicate areas where there was additional movement of water through the site.

Figure 23 shows an early Google Earth image of the site, taken in 2004. Cultivation of the site is no longer taking place, but a large dam/excavation exists in the centre of the site. Subsequent to this, a number of excavations for sand mining have been undertaken within site. Peri-urban development of the surrounding area has also increased. **Figure 24** provides a recent (June 2022) Google Earth image of the site.

Figure 23: Early Google Earth image of the site, taken in January 2004.

Figure 24: Recent Google Earth image of the site, taken in June 2022.

6.4. Wetland Vegetation

In terms of the wetland areas, patches of wetland vegetation were found within the site that are indicative of seasonal wetness. The wetland community is driven by a mix of exotic grass and small sedges and reeds. These wetlands are found where the water table is higher than the soil surface and where slight depressions occur in the landscape. In winter, these wetlands are more clearly identifiable by their wetland-associated vegetation that tends to be dominated by riverbed grass (*Pennisetum macrourum*), with some sedges such as *Cyperus textilis*, *Ficinia nodosa* and *Juncus capensis*.

6.5. Wetland Delineation

Wetland delineation utilises four wetland indicator processes to provide an estimate of the class, character, and extent of a wetland. They are landscape position (must be flat or depressed), vegetation (must be hydrophilic), soil form (must compliment an existing wetland type) and soil wetness (water table must be within 50cm of soil profile and active mottling must be high).

Figure 25: Topographical survey of the site, overlaid in Google Earth with the delineated wetland areas shown.

Sub-surface water movement through the property can be discerned from past aerial imagery, as already mentioned but is not so clearly shown in the topography (**Figure 25**) of the site, which has been altered by past excavations and infilling. **Figure 26** shows the wetland areas delineated from the site assessment.

Figure 26: Google Earth image showing the delineated wetlands within the proposed development site. The remaining subsurface path detectable in past aerial images and still contains associated wetland habitat is indicated by the blue arrow.

Ground truthing of the site was undertaken by Ms. Toni Belcher in July 2022, a suitable season for the assessment. Focus areas were the areas indicated as pathways for water movement through the site, as well as the aquatic CBA mapped areas.

The large dam/excavated area did contain water but no associated wetland vegetation or habitat (**Figure 27**).

Figure 27: Vegetation around the dam/excavation within the site.

There was, however, a small patch of wetland dominated by riverbed grass (*Pennisetum macrourum*) directly to the north of the dam, within a subsurface flow path (**Figure 28**).

Figure 28: Small wetland patch north of the dam dominated by riverbed grass.

No existing wetland habitat was found in the central area to the west of the large dam. This area did, however, show some remnants of wetland habitat and have been previously excavated and filled with rubble and then overgrown with alien invasive kikuyu grass (*Pennisetum clandestinum*)(**Figure 29**). No wetland habitat occurred to the east of the dam.

Figure 29: Remnant wetland area to the west of the large dam.

Some wetland habitat was found in the western subsurface flow path indicated in **Figure 26**. This area had mostly been previously excavated for sand and wetland habitat formed within the excavation and surrounding area. There were also patches of riverbed grass occurring to the south of the excavations, where it was less disturbed. **Figure 30** shows images of the remnant wetland habitat along this corridor.

Figure 30: View of the remnant wetland habitats along the western water pathway.

6.6. Wetland Characterisation and Health Assessment

The wetlands within the site are considered to be largely to seriously modified. They are largely artificial wetland areas which have formed as a result of modifications to the topography and flow through the site.

6.7. Ecological Importance and Sensitivity and Ecosystem Services

The wetlands are considered to be of low ecological importance and sensitivity. Only remnant and largely artificial wetland habitats remain on the site that does not support any aquatic biota of significance. They are also not sensitive to flow and water quality modification. The associated corridors are however important linking corridors along the subsurface flow paths that feed associated downstream terrestrial and wetland habitat.

The wetlands, due to their degraded condition and the modified surrounding landscape within the site, are able to offer very limited ecosystem goods and services.

6.8. Target Ecological Categories of Aquatic Ecosystems

The wetlands within the site are currently in a largely to seriously modified ecological condition and of low importance, providing limited goods and services. While there is no significant wetland habitat found within the site that needs to be maintained, it would be important to maintain an aquatic ecological corridor through the site and recreate wetland functionality associated with the corridor. It is recommended that any recreated wetlands within the site be managed to be in a C Category of moderately modified.

7. Terrestrial Biodiversity & Vegetation

The site is well within the Fynbos Biome, that is a typical Mediterranean-type Ecosystem, with cool to cold, wet winters and hot, dry, and windy summers.

According to the Vegetation map of South Africa, Lesotho, and Swaziland (Mucina *et al.*, 2005; Rebelo et al. 2006; SANBI 2018) (VEGMAP), the only vegetation type that would have naturally occurred in this area is Swartland Alluvium Fynbos. This vegetation is a heathland (shrubland) formation with the plant families *Ericaceae*, *Restionaceae* and *Proteaceae* being prominent.

Swartland Alluvium Fynbos is classified as Critically Endangered A1, where the A1 criterion means that there has been irreversible loss of natural habitat of this type (Government Gazette, 2011). This vegetation type (habitat) is also poorly conserved in formal conservation areas.

7.1. Site Vegetation

As noted above, the original vegetation that would have been found on Portion 11 of Farm 1426, Paarl, would have been Swartland Alluvium Fynbos that is classified as Endangered according to the 2018 VegMap[2] and the NEM BA Revised National List of Ecosystems that are Threatened and in Need of Protection (18 November 2022).

Dr Dave McDonald undertook a site inspection in June 2022 and found that the site has been entirely transformed due to farming activities, the invasion by exotic alien trees and the previous mining activities.

The botanical survey did not reveal any intact Swartland Alluvium Fynbos. The only indigenous plant species found were some fragmented stands of *Seriphium plumosum* (slangbos) together with *Willdenowia sulcata* (Sonkwasriet) (**Figure 31**). Several mature *Leucadendron rubrum* (spinning top) shrubs were also found. The area where these representatives of the former fynbos plant community were found was invaded by alien *Acacia saligna* (Port Jackson Willow) and *Pinus radiata* (Monterey Pine). The grass, *Cynodon dactylon*, is Indigenous but is extremely invasive on disturbed dry, sandy, sites, as was found on the site.

Significant areas of the property were scraped bare of any vegetation in the sand-mining operation.

[2] South African National Biodiversity Institute (2006-2018). *The Vegetation Map of South Africa, Lesotho and Swaziland*, Mucina, L., Rutherford, M.C. and Powrie, L.W. (Editors), Online, http://bgis.sanbi.org/Projects/Detail/186, Version 2018.

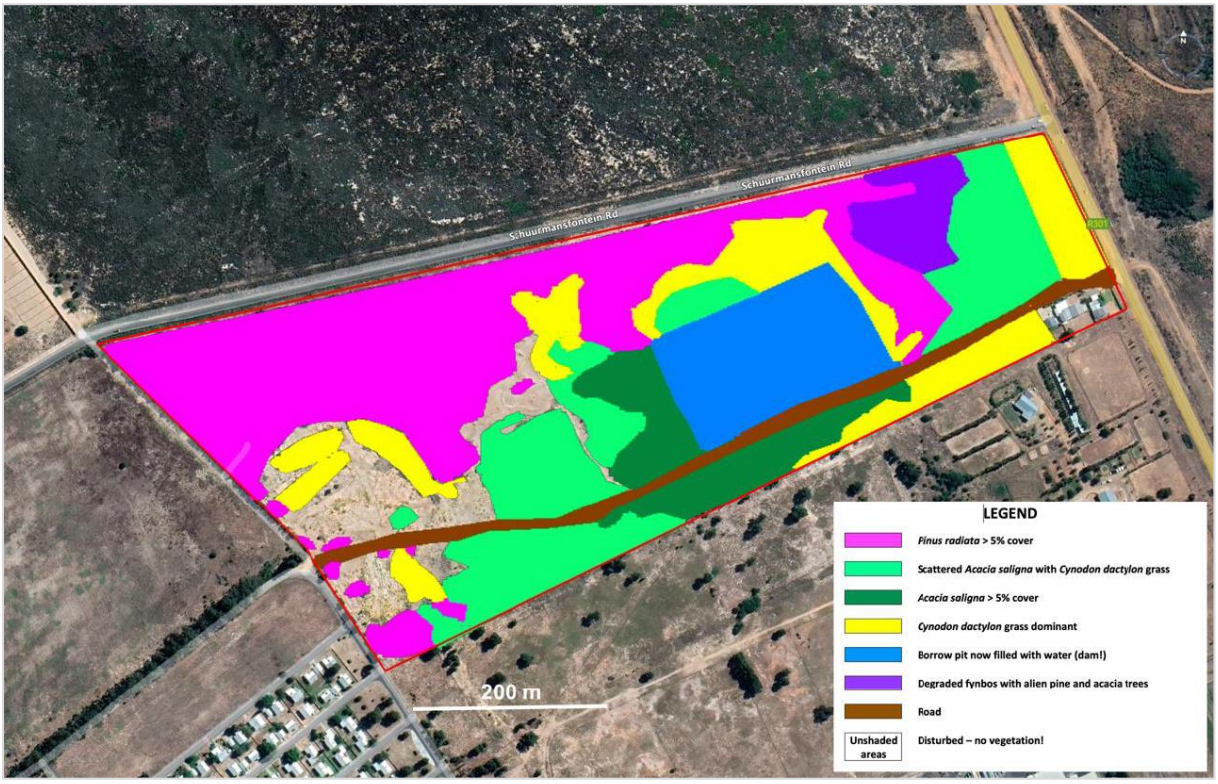

Figure 31: A vegetation map of Portion 11 of Farm 1426, Paarl, in its current condition.

7.2. Botanical Sensitivity

7.2.1. National Screening Tool

The National Environmental Screening Tool was applied to Portion 11 of Farm 1426, Paarl and the map indicates that the plant species theme generally has a high sensitivity. After doing the site sensitivity verification, Dr McDonald however found that the entire site is highly disturbed with low sensitivity with respect to vegetation.

7.2.2. Terrestrial Biodiversity Conservation Importance

The WCBSP mapping shows (**Figure 32**) that the site has small areas of CBA1 and CBA2 and a larger area of EAS2. Dr McDonald found that the site is entirely transformed and the WCBSP data for the site is inaccurate.

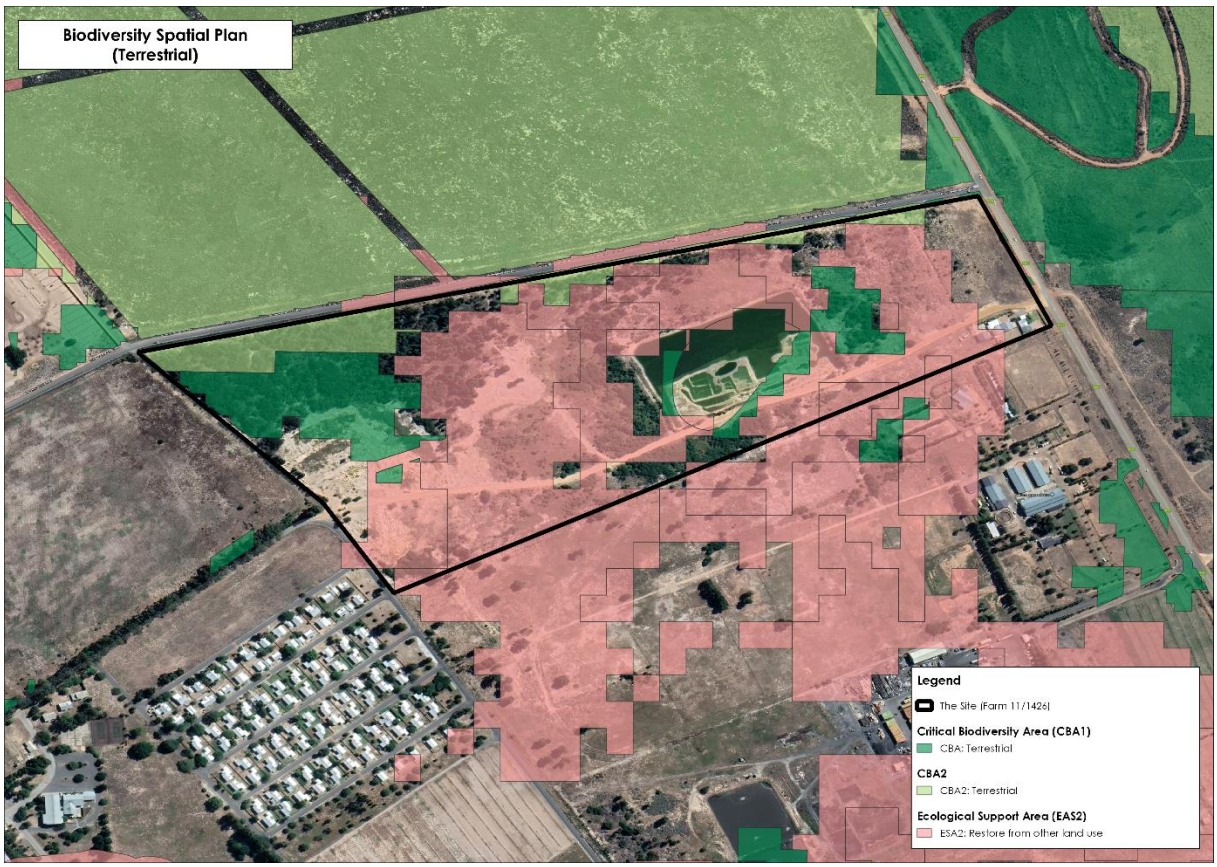

Figure 32: Terrestrial Biodiversity Map.

7.2.3. Red List Ecosystems (RLE)

The RLE map (SANBI, 2021) for the remnant of natural vegetation in South Africa (**Figure 33**), shown that the western half of the land portion is mapped as a threatened ecosystem with high sensitivity. Dr McDonald found that there is no threatened ecosystem and the RLE data for the site is inaccurate.

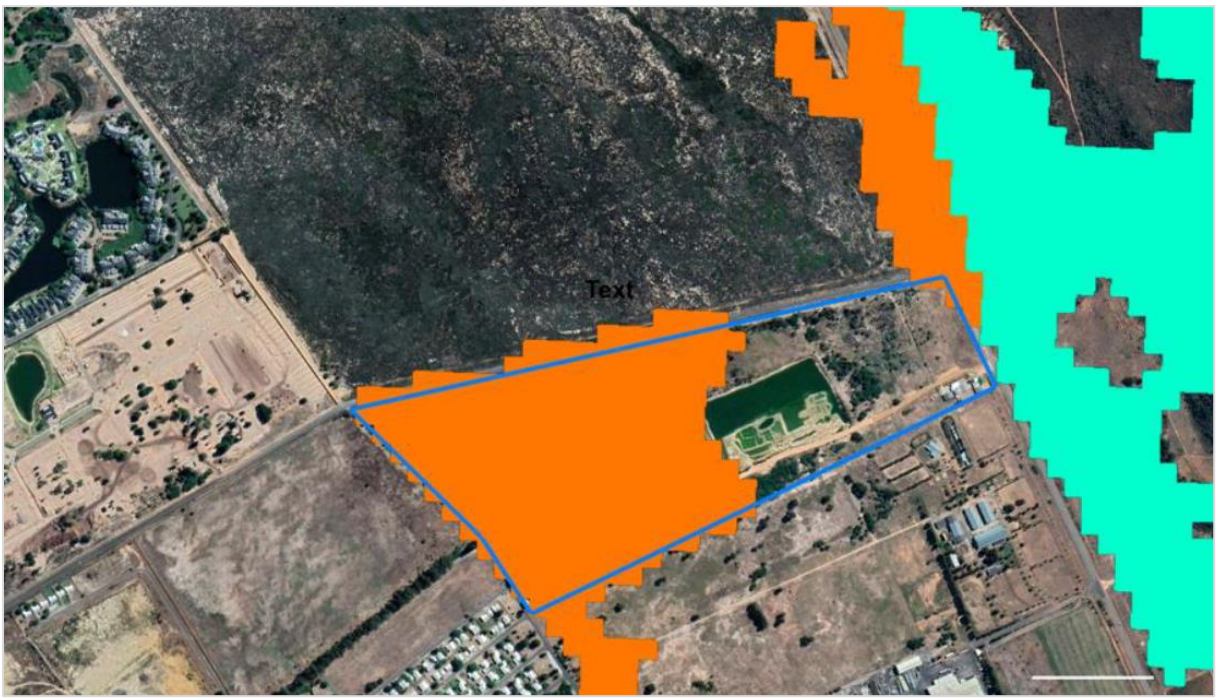

Figure 33: The RLE map applied to Portion 11 of Farm 1426, Paarl (blue boundary). The orange shading indicates high conservation value/sensitivity and the green, low conservation/sensitivity value. Unshaded areas are by default of low value.

8. Fauna

The **Screening Report** (**Appendix H1**) indicates that the sensitivity of animal species for the proposed development site is High.

Table 6: A list of potential animal species identified in the Screening Report that could potentially be impacted by the proposed development.

Scientific name	Common name	Sensitivity rating
Pelecanus onocrotalus	Great white pelican	High
Hydroprogne caspia	Caspian tern	Medium
Aneuryphymus montanus	Yellow-winged Agile Grasshopper	Medium
Conocephalus peringueyi	Peringuey's Meadow Katydid[3]	Medium
Brinckiella aptera	Mute Winter Katydid[4]	Medium

The proposed development site is entirely transformed due to disturbance from agricultural, sand and gravel removal activities and does not support the habitat for the animal species listed in **Table 6**.

9. Socio-Economic Aspects

The site is located within Ward 28 of the Drakenstein Local Municipality, within the province of Western Cape.

9.1. Demographic Profile

The population of Drakenstein is 305 281 and the number of households is 74 230. The table below shows the number of households by different ethnic groups. In 2018/19, Coloured households represented 55.25% of the total households in Drakenstein, followed by Black African at 23.6%, White households 20.78% and Indians/Asians being the smallest portion of households at 0.32%.

9.2. Socio-Economic Status

In 2021, the unemployment rate in Drakenstein (based on the narrow definition of unemployment) was 21%. Given the prevailing conditions over the past year as well as the seasonal nature of local employment in the agricultural sector as well as the narrow definition of the official definition it is estimated that a more realistic unemployment figure is closer to 27%.

10. Cultural and Heritage Aspects

According to the Drakenstein Heritage Survey Report (Winter, Jacobs, Baumann, & Attwell, 2012), the site is located within the Lower Berg River Valley Broad Landscape Character Zone.

- This is a highly complex valley landscape (the Berg River Valley) defined by the prominent Drakenstein/Wemmershoek Mountains to the east and the iconic quality of the Paarl Mountain to the west, within which there are distinctive sets of urban and rural conditions operating at different scales, e.g. rooms, blocks, cells, corridors, ensembles, gateways, vistas.
- There is a strong north-south linear pattern of urban settlement which is both informed by and reinforced by the alignment of the Berg River and framed at a larger scale by the surrounding mountains.
- This Landscape Character Zone contains a juxtaposition of rural and urban landscapes arising from a variety of topographical conditions e.g., exposed slopes, riverine corridors, ridgelines.

[3] Orthoptera Species File (Version 5.0/5.0). 2021. [online] Available at: <https://www.mindat.org/taxon-5095863.html> [Accessed 20 September 2021].
[4] Mindat.org. 2021. [online] Available at: <https://www.mindat.org/taxon-5095863.html> [Accessed 20 September 2021].

- Landscape patterns of cultivation are defined predominantly by vineyards and the distinctive patterns of tree planting, forming avenues, windbreaks, or clusters/rows around farm buildings.

Heritage overlay Zones proposed by the Drakenstein Heritage Survey Report surround the subject site and are illustrated in **Figure 34**. These are: the Dwars and Berg River Corridors Heritage Overlay Zones (HOZ) and the Wemmershoek Slopes HOZ. However, Portion 11 of Farm 1426 itself does not fall within either of these Heritage Overlay Zones, and the properties located between these protected areas (including the site) are not considered to form part of a landscape of heritage significance (Postlethwayt, 2022).

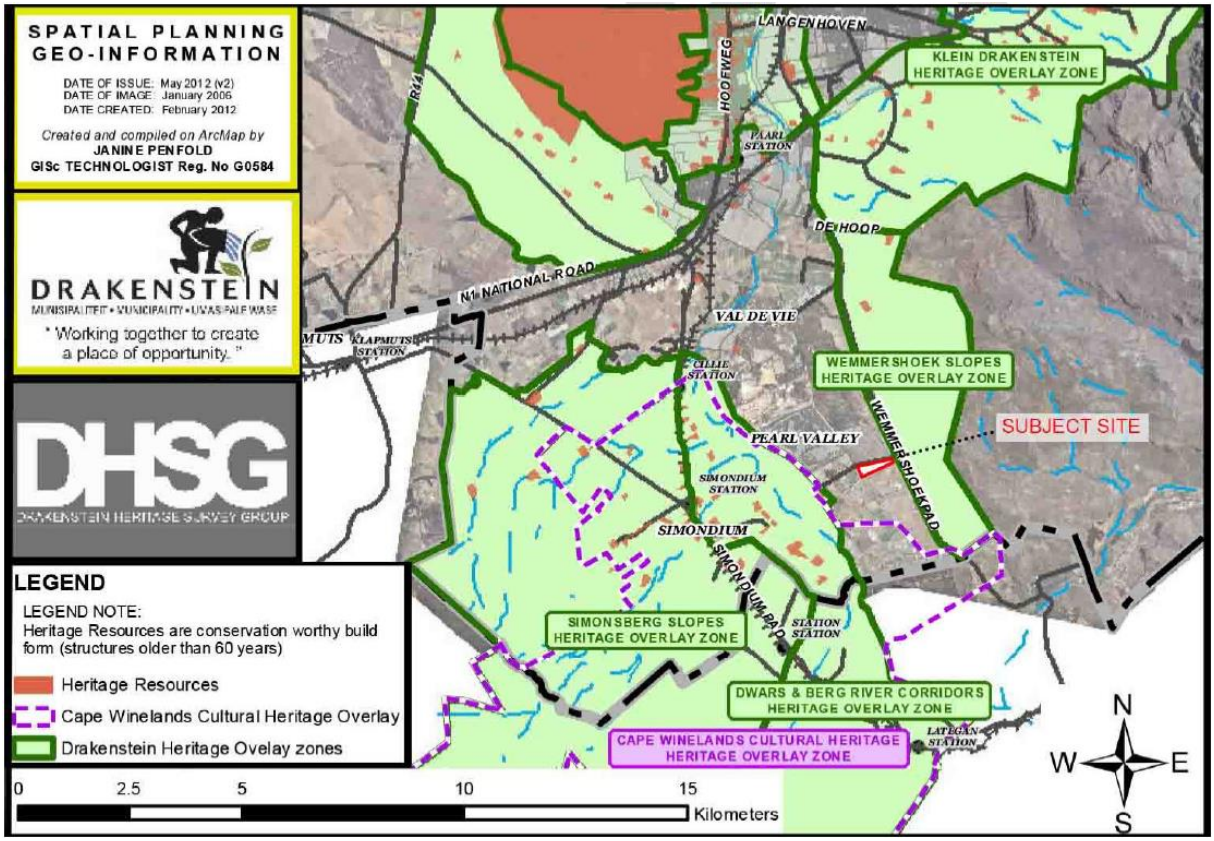

Figure 34: Heritage overlay Zones proposed by the Drakenstein Heritage Survey Report.

According to the Drakenstein Mountain Slope policy, the subject site and surrounds are classified under Domain C in terms of its Landscape Character Areas. The site falls within the extents of the Wemmershoek Corridor Landscape Character Area (C2) according to this policy (see **Figure 35**).

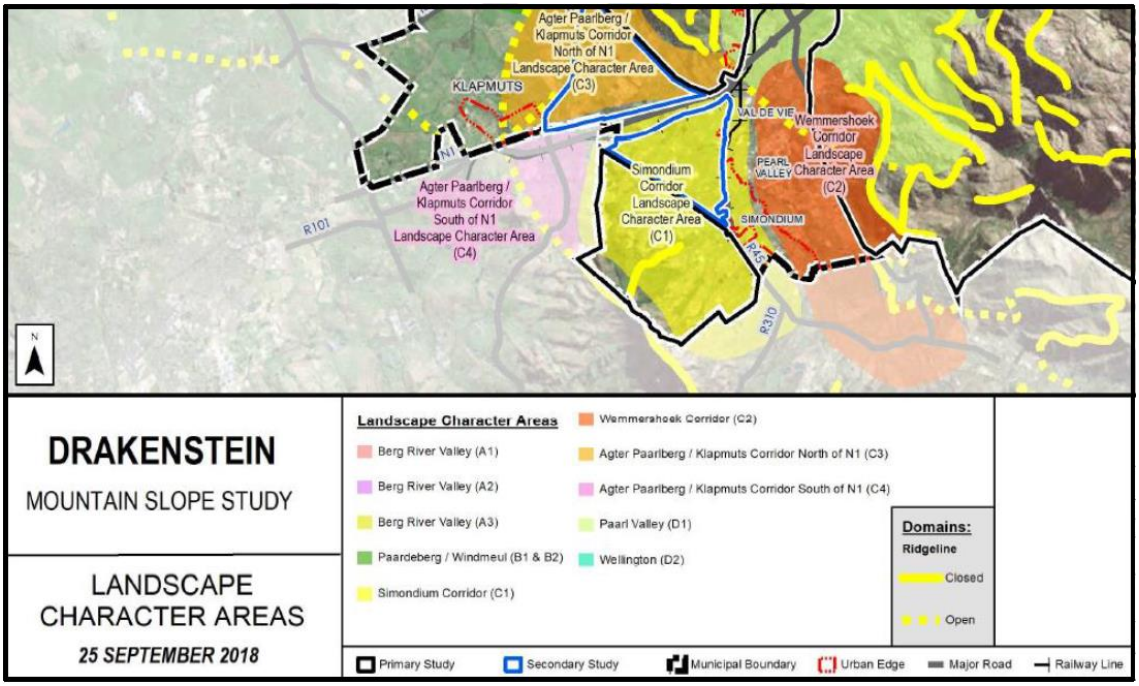

Figure 35: Drakenstein Mountain Slope Study: Landscape Character Areas.

10.1. Scenic Route

The subject site is located along the R301 Scenic Route (Route #24) (**Figure 36**). Scenic routes refer to routes that provide vistas over scenic landscapes and the experience of a sense of place. Scenic Routes are recognized by the municipality as assets under its curatorship, and the strategy of the SDF is to protect and enhance the history, culture, and aesthetic value of these assets (Drakenstein Municipality, 2022/27).

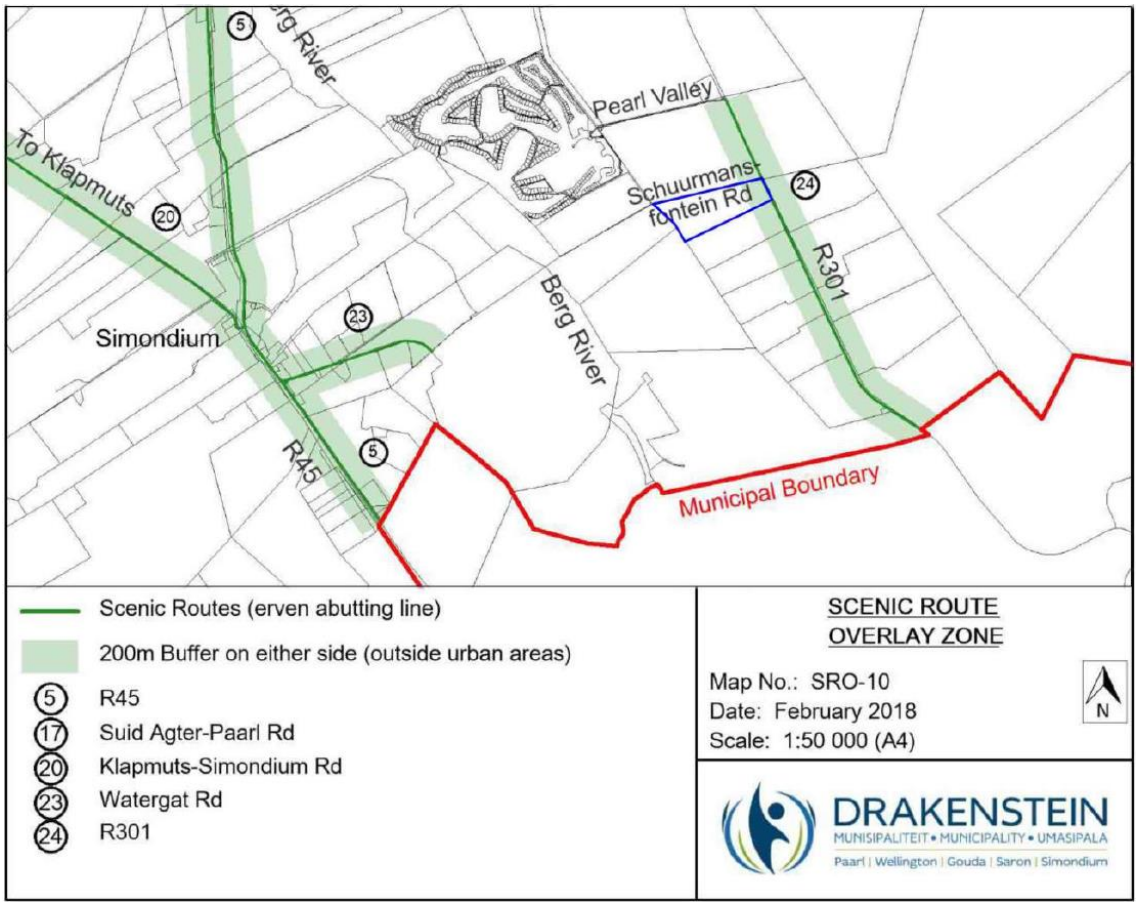

Figure 36: Scenic Route Overlay Zone diagram.

SECTION F: ENVIRONMENTAL CONSTRAINTS AND OPPORTUNITIES

This section describes the opportunities and constraints of the site. These opportunities and constraints have provided input into the layout of the proposed development.

1. Agricultural Constraints and Opportunities

The site is indicated as having very high sensitivity for impacts on agricultural resources in the **Screening Report** (**Appendix H1**). The screening tool classifies agricultural sensitivity according to only two independent criteria – the land capability rating and whether the land is cultivated or not. The land capability of the investigated site varies between 7 and 11. Values of 6 to 8 translate to a medium agricultural sensitivity, values of 9 to 10 translate to a high agricultural sensitivity, and values of 11 translate to a very high agricultural sensitivity. The small scale differences in the modelled land capability across the project area are not very accurate or significant at this scale and are more a function of how the data is generated by modelling, than actual meaningful differences in agricultural potential on the ground.

It is also important to note that agricultural sensitivity only takes biophysical factors (soil, climate, terrain) into account and these are based on fairly course-scaled modelled data. Factors such as excavations and disturbances to soil are not taken into account.

Although natural conditions on the site would have been suitable for crop production under irrigation with a land capability of approximately 8 to 9, the site has been significantly disturbed and excavated to the extent that it no longer has any crop production potential.

A Site Sensitivity Verification and Agricultural Compliance Statement, that assesses the potential impact on agriculture associated with the proposed development, will be provided in the EIA phase.

2. Ecological Constraints and Opportunities

2.1. Botanical Constraints

As mentioned, the site is completely transformed as a result of farming and mining activities and invasion by alien vegetation. The site has no botanical constraints. The proposed development in the study area would have a very low impact with respect to any natural vegetation.

A Site Sensitivity Verification and Terrestrial Biodiversity Compliance Statement, that assesses the potential impact on terrestrial biodiversity associated with the proposed development, will be provided in the EIA phase.

2.2. Aquatic Ecosystem Constraints and Opportunities

No significant wetland habitat occurs within the site that needs to be retained. There is, however, still evidence of the water pathways through the site. It is thus recommended that new wetland habitats be created within the water pathway indicated in **Figure 26 (see page 71)**. The pathways should link up with the culverts along Schuurmansfontein Road to feed through to the site to the north. The approximate extent of wetland habitat that would need to be created is about 1-2 ha. The created waterways could be combined with stormwater management areas, provided the created wetland habitat meets the required area as mitigation for no net loss of wetland habitat. There would also be the potential to retain a portion of the large dam/excavated area and create a wetland habitat within it.

The recommendation regarding an aquatic ecological corridor and wetland habitat has been taken into consideration in the proposed layout (see **Appendix B1**), where a 25m wide corridor orientated north/south and linked to the upstream and downstream passage of sub-surface flow is allowed for in the layout. A portion of the large dam currently within the site will be retained as an aesthetic feature and retention dam. In the north-western corner of the site, it is proposed to construct a stormwater pond.

A wastewater treatment plant will also be placed in the north-western corner of the site to treat an estimated 280m^3/day of sewage to the Special Limit as per the Department of Water and Sanitation (DWS) General Notice 169 of 2013. The proposed process for the WWTW is the University of Cape Town (UCT) process for combined nitrogen and phosphorus removal with an ultrafiltration Membrane for particle separation. The treated sewage will be used to provide additional water to the created wetland corridor.

An Aquatic Biodiversity Impact Assessment that assesses the potential impacts the proposed development will have on aquatic features will be provided in the EIA phase.

3. Biodiversity Conservation Importance

The WCBSP of 2017 (**Figure 37**) has identified CBAs and ESAs which are deemed to be essential in terms of meeting habitat and species representation targets, and in terms of maintaining current levels of ecological connectivity across an already fragmented landscape.

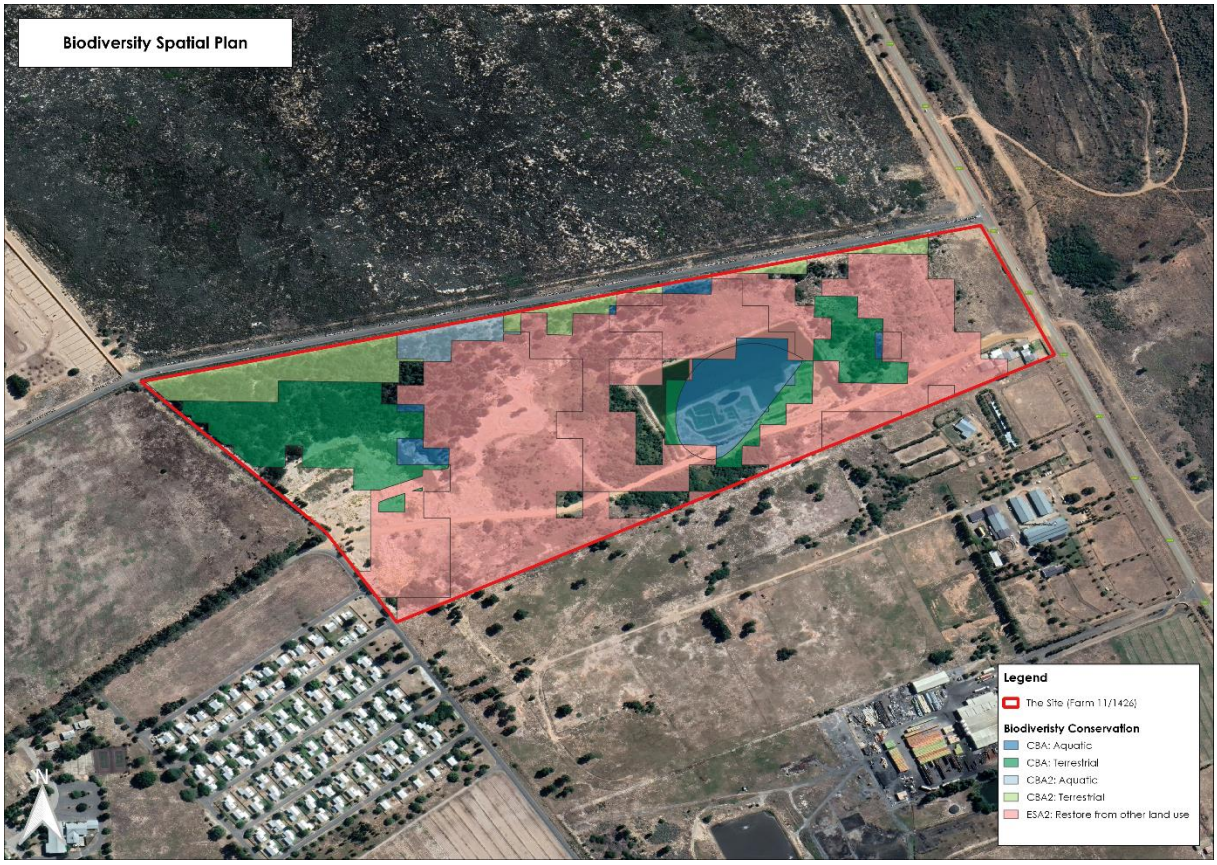

Figure 37: Biodiversity Spatial Plan mapping for the site.

The Biodiversity Map for the larger area and the site is included in **Appendix D1** of this report.

The definitions, management objectives of each of the conservation categories as well as the areas of the CBAs and ESAs mapped on site are provided in **Table 7**.

Table 7: Biodiversity Spatial Plan Categories.

Category	Sub-Category	Definition	Management Objective	Feature	Area (m^2) identified
Critical Biodiversity Area	CBA: Terrestrial	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 natural habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate.	Non provided.	38 969.14
	CBA: Aquatic	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 natural habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land uses are appropriate.	Non provided.	18 150.64
Critical Biodiversity Area 2: Degraded	CBA2: Aquatic	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 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.	Non provided.	4 614.62
Critical Biodiversity Area 2: Degraded	CBA2: Terrestrial	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 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.	Non provided.	19 901.90
Ecological Support Area 2: Restore	ESA2: Restore from other land use	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 minimize impact on ecological processes and ecological infrastructure functioning, especially soil and water-related services, and to allow for faunal movement.	Climate Corridor, River, Wetland, Watercourse	14 9320.67

3.1. Vegetation of Conservation Importance

Figure 37 shows that the site has small areas of CBA1 and CBA2 and a larger area of EAS2. The site is however entirely transformed and the WCBSP data for the site is deemed inaccurate.

Although the proposed development is not expected to affect any terrestrial biodiversity areas of conservation importance, a Site Sensitivity Verification and Terrestrial Biodiversity Compliance Statement will be provided in the EIA phase.

3.2. Aquatic Feature of Conservation Importance

Figure 37 shows some aquatic CBAs within the site that are associated with the existing dam, as well as some scattered wetlands on the western side and northern boundary of the site. Much of the area surrounding the aquatic CBA is mapped as aquatic ESAs.

No significant wetland habitat occurs within the site that needs to be retained. There is, however, still evidence of the water pathways through the site. It is thus recommended that new wetland habitats be created within the water pathway indicated in **Figure 26 (see p. 71)**.

The recommendation regarding an aquatic ecological corridor and wetland habitat has been taken into consideration in the proposed layout, where a 25m wide corridor orientated north/south and linked to the upstream and downstream passage of sub-surface flow is allowed for in the layout. A portion of the large dam currently within the site will be retained as an aesthetic feature and retention dam. In the north-western corner of the site, it is proposed to construct a stormwater pond.

A wastewater treatment plant will also be placed in this corner of the site to treat an estimated 280m^3/day of sewage to the Special Limit as per General Notice 169 of 2013. The proposed process for the WWTW is the University of Cape Town (UCT) process for combined nitrogen and phosphorus removal with an ultrafiltration Membrane for particle separation. The treated sewage will be used to provide additional water to the created wetland corridor.

Refer to the **Conceptual Site Plan & Environmental Sensitivity Overlay Map** included in **Appendix D2**.

An Aquatic Biodiversity Impact Assessment that assesses the potential impacts the proposed development will have on aquatic features will be provided in the EIA phase.

4. Groundwater

The main possible groundwater contamination source relates to the irrigation with treated water from the effluent treatment plant as well as overflow from the retention ponds in periods of high surface runoff and low irrigation.

A Groundwater Impact Assessment that assesses the potential impacts the proposed development will have on groundwater will be provided in the EIA phase.

5. Socio-Economic Constraints and Opportunities

The socio-economic constraints and opportunities associated with the proposed development relate to the creation of employment opportunities during the construction and operational phases of the development as well as the additional benefits for the local economy thought the creation of new investment opportunities.

6. Visual Constraints and Opportunities

The visual constraints and opportunities associated with the proposed development include:

- Potential intrusion on protected landscapes or scenic resources;
- Noticeable change in visual character of the area; and
- Establishes a new precedent for development in the area.

Key visual concerns are:

- **Effect on Cultural landscapes and scenic resources, with specific reference to:**
  - The effect on the rural sense of place of the Cape Winelands Cultural Landscape;
  - The effect on the visual amenity of the Scenic route; and
  - Effect on local heritage resources and other protected resources.

- **Effect on sensitive receptors with specific reference to:**
  - Commuters on the R301 Scenic route.
  - Local sensitive receptors.

A Visual Impact Assessment that assesses the potential visual impacts associated with the proposed development will be provided in the EIA phase.

7. Roads and Transport

The constraints and opportunities on the existing roads and transportation infrastructure associated with the proposed development in this section was provided by the appointed Traffic Engineer, Mr Hugo Engelbrecht from ITS.

The proposed development is estimated to generate a total of 300 weekday a.m. peak hour- and 333 weekday p.m. peak hour vehicle trips respectively once the proposed development has been completed.

The proposed development is expected to increase traffic volumes during the construction and operational phases.

*Refer to the **Traffic Impact Assessment** included **in Appendix F6** of this report.*

Please note, the TIA is regarded as a technical report and not a specialist study as defined in the EIA Regulations, 2014 (as amended).

8. Noise

8.1. Construction Phase Constraints

Construction Phase activities would include clearing of vegetation; mass earthworks; transportation of materials to site; installation of civil and electrical services; preparation and construction of roads; and construction of building structures.

The construction phase would be of a relatively short duration.

8.2. Operational Phase Constraints

8.2.1. Road Traffic Noise

Noise emanating from road traffic on the R301 would have a major noise impact on any residential units in the mixed-use area as well as along part of the land extending along the northern and southern site boundaries, west of the mixed-use area.

8.2.2. Noise from the Mixed-Use Area

Potential sources of noise from business/commercial buildings might be:

- Air conditioning and other mechanical services mounted exterior to buildings;
- Plant rooms containing stand-by electrical generator and other mechanical services.

Any such noise could potentially impact on residents in the mixed-use area; offices; the residential units to the west of the mixed-use area; as well as land beyond the development site boundaries.

8.2.3. Noise from Residential Units

The proposed 216 residential units will extend from west of the proposed mixed-use area to the western site boundary. This would be typical of numerous suburbs throughout the country. Generally, the ambient sound levels in such suburbs are very low with no previous record of noise impact on adjacent districts.

8.2.4. Noise Emanating from the Wastewater Treatment Plant and Electrical Substation

The main source of noise from the wastewater treatment plant would be blowers inside an equipment room.

The electrical substation would comprise a miniature substation utilised by all municipalities and installed in all developments. Noise emitted from the substation could potentially impact on nearby residences.

A Noise Impact Assessment that assesses the potential noise impacts associated with the proposed development will be provided in the EIA phase.

SECTION G: IDENTIFICATION OF ALTERNATIVES

The following sections describe the process followed to reach the proposed preferred development alternative.

1. Property and Location/Site Alternatives

The site, Portion 11 of Farm No. 1426, Paarl, is the only site considered. No property or site alternatives were considered as part of this application since the proposed development entails the rezoning and subdivision of the subject property to allow for the establishment of a residential mixed-use development and associated infrastructure.

Furthermore, the proposed development site is situated within the Municipal urban edge and delineated as "Urban Infill" by the Drakenstein Municipality Spatial Development Framework (2022), therefore demarcated for urban development by the Municipality.

2. Activity Alternatives

The proposal is for the development of a residential and mixed-use development and associated infrastructure that is consistent with the Drakenstein Municipality Spatial Development Framework (2022). No other activity alternatives were therefore considered.

3. Layout Alternatives

Three layout alternatives have been considered for the proposed development.

An iterative process has been followed by the project team in collaboration with the appointed specialists to consider all potential constraints and opportunities from an environmental and planning perspective to inform the development layout options.

3.1. Initial Development Option

The initial development proposal presented by the applicant comprised the development of a residential development with commercial and light industrial components, open spaces, and associated infrastructure. Refer to **Figure 38**.

At this stage none of the aquatic, visual or noise constraints were taken into consideration and the team had to go back to the drawing board to incorporate the recommendations from the specialists.

Furthermore, the applicant decided to discard the light industrial component and the commercial component was to be replaced by a mixed-use component.

The initial development proposal was thus scoped out at an early stage and was not considered as part of this Scoping process.

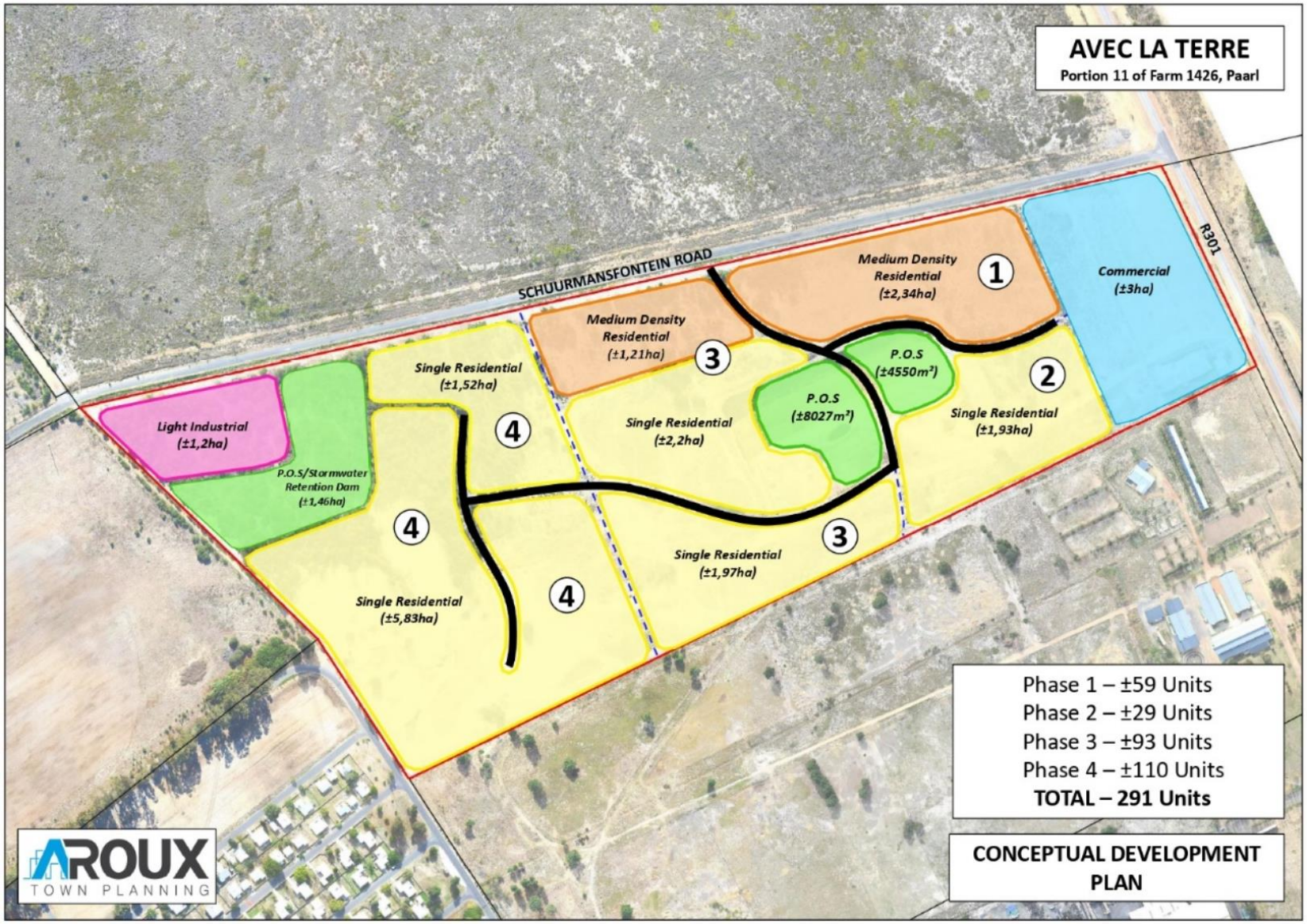

Figure 38: Initial Conceptual Development Plan.

3.2. Alternative A

After further discussions and collaborations between the design team, engineers and the environmental specialists, a new layout plan was presented. This option will be referred to as **Alternative A**.

Alternative A comprises the rezoning and subdivision of the site to establish a residential estate with open spaces, a mixed-use component and associated infrastructure. Refer to the **Subdivision, Rezoning and Phasing Plan (Appendix B1)** and **Figure 40**.

The proposed land use rights for the residential component of the proposed development are fixed in terms of the permitted land uses and total number of units (216 single residential units); however, the proposed mixed-use site requires more flexibility as the site development plan and land uses have not been finalised and will be informed by future demand.

The detailed site development plans will be submitted for approval to the relevant authorities in the detailed design phase.

This proposal also entails the development of a WWTP in the north-western corner of the site (Portion 233 on **Figure 40**).

The Aquatic Specialist recommended that an aquatic ecological corridor and wetland habitat should be included in the proposed layout. This recommendation has been taken into consideration.

In addition to the Subdivision, Rezoning and Phasing Plan, a more detailed Concept Site Development Plan (**Figure 41**) is presented in order for the noise and visual specialists to determine the environmental constraints and opportunities associated with the proposed development.

The Concept Site Development Plan for Alternative A shows the buildings in the mixed-use component close to the road reserve boundaries of the R301 and Schuurmansfontein Road with parking bays directly bordering on 18 of the proposed units in the residential estate (see **Figure 39**).

Figure 39: 3D illustration of the mixed-use component associated with Alternative A.

The Noise Specialist raised some concerns regarding the noise constraints associated with the layout of the mixed-use component of Alternative A. Due to the high noise levels of the R301 a noise barrier of at least 3m high at the property boundary would be required to mitigate the noise impact on the residential units in the mixed-use component. West of the mixed-use area a 2m high barrier would need to extend approximately 245m along the northern and southern property boundaries.

Alternative to a noise barrier, the access to each residential unit as well as bathrooms, kitchens and toilets should be along the facade facing the R301 with all living rooms, bedrooms, balconies, and gardens facing away from the road. However, with open windows required for ventilation, interior noise levels could still be intrusively high. The access corridors to each dwelling unit should comprise a glass noise barrier with access stairwell openings for fresh air ventilation facing away from the road.

It has also been suggested to provide double glazed windows of residences in the mixed-use area instead of erecting a noise barrier along the R301. This would indeed significantly reduce indoor noise levels provided the windows (and doors) close on airtight seals. However, outdoor balconies and gardens would still be exposed to road traffic noise.

The recommendations from the Noise Specialist were not deemed suitable from a visual perspective due to the visual sensitivity associated with the scenic route and because some elements and principles of the proposed development are fixed, namely:

i. Maximum building height of 3 storeys;
ii. Buildings to be set back from the R301 boundary to prevent obstruction of the view corridors from the R301;
iii. Extensive landscaping (trees) along the R301 boundary, except near the R301/Schuurmansfontein intersection to allow accentuation of the main building at the corner;
iv. Architecture and built form to be contemporary but complimentary to the local area, natural landscape, and views.

As a result of the above, it was decided by the design team with input from the specialists to reconfigure the layout of the mixed-use component to accommodate the noise as well as the visual constraints. Alternative A was revised to provide a new layout option.

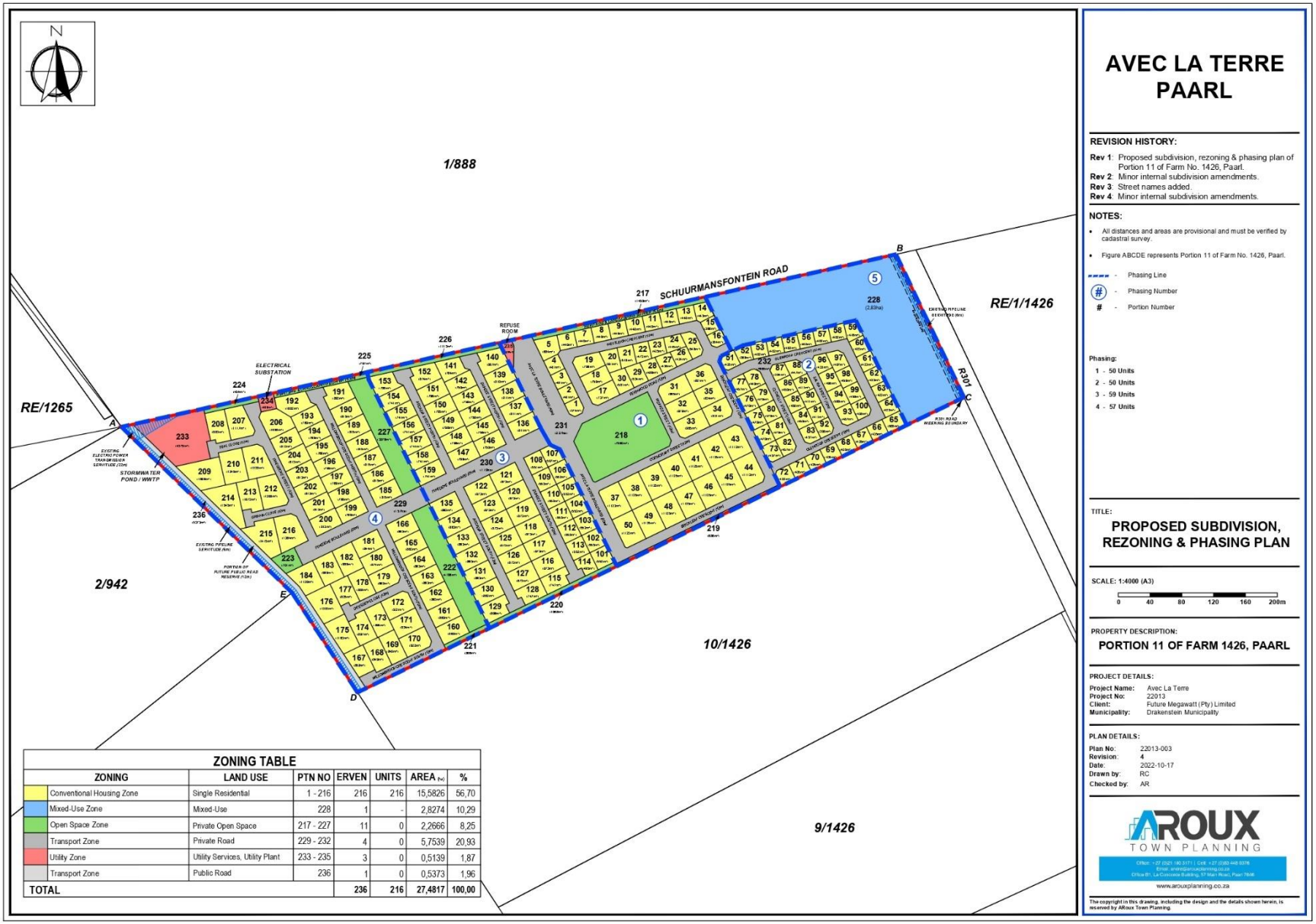

Figure 40: Proposed Subdivision, Rezoning and Phasing Plan.

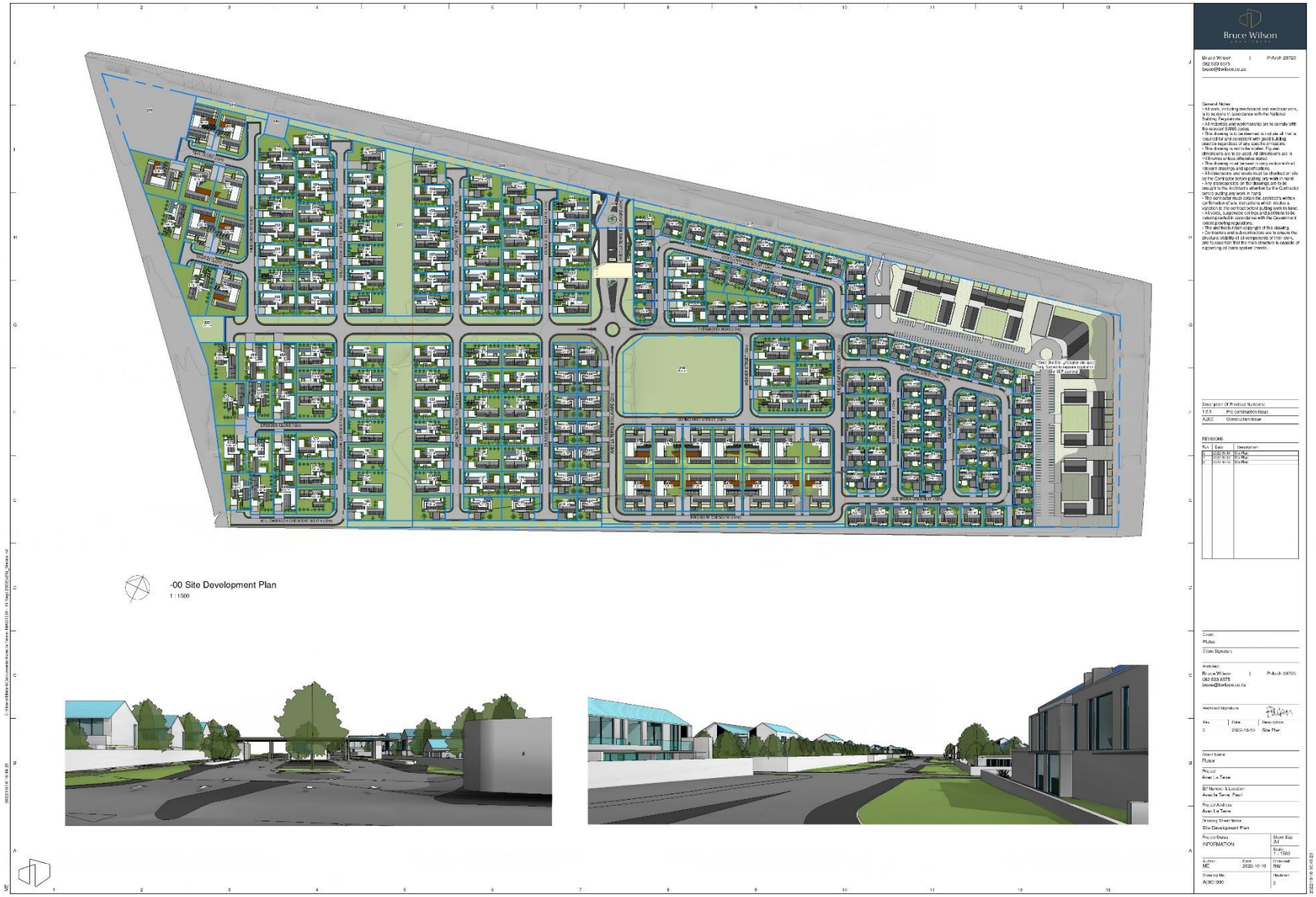

Figure 41: Concept Site Development Plan – Alternative A.

3.3. Alternative B – the Preferred Option

Alternative B, now the preferred development option, also comprises the rezoning and subdivision of the site to establish a residential estate with open spaces, a mixed-use component and associated infrastructure. No changes were made to the **Subdivision, Rezoning and Phasing Plan** (**Appendix B1**) and **Figure 40**.

Like with Alternative A, the proposed land use rights for the residential component of the proposed development are fixed in terms of the permitted land uses and total number of units (216 single residential units); however, the proposed mixed-use site requires more flexibility as the site development plan and land uses have not been finalised and will be informed by future demand.

The detailed site development plans will be submitted for approval to the relevant authorities in the detailed design phase.

This proposal also entails the development of a WWTP in the north-western corner of the site (Portion 233 on **Figure 40**).

A detailed description of the scope of the preferred development is provided in **Section B** of this report.

Alternative B shows the parking areas of the mixed-use component adjacent to the property boundaries with the building facades set back from the roads by approximately 40m.

The major difference between Alternative A and Alternative B is the position of the parking areas relative to the surrounding public roads and the proposed buildings. The proposed buildings in Alternative B are identical in form, height, and orientation to those in Alternative A. The buildings are however set back from the R301 and Schuurmansfontein roads to accommodate parking and the internal road between the property boundary and the proposed buildings (see **Figure 42**).

Figure 42: Extract from the Concept Site Development Plan showing the mixed-use component of Alternative B.

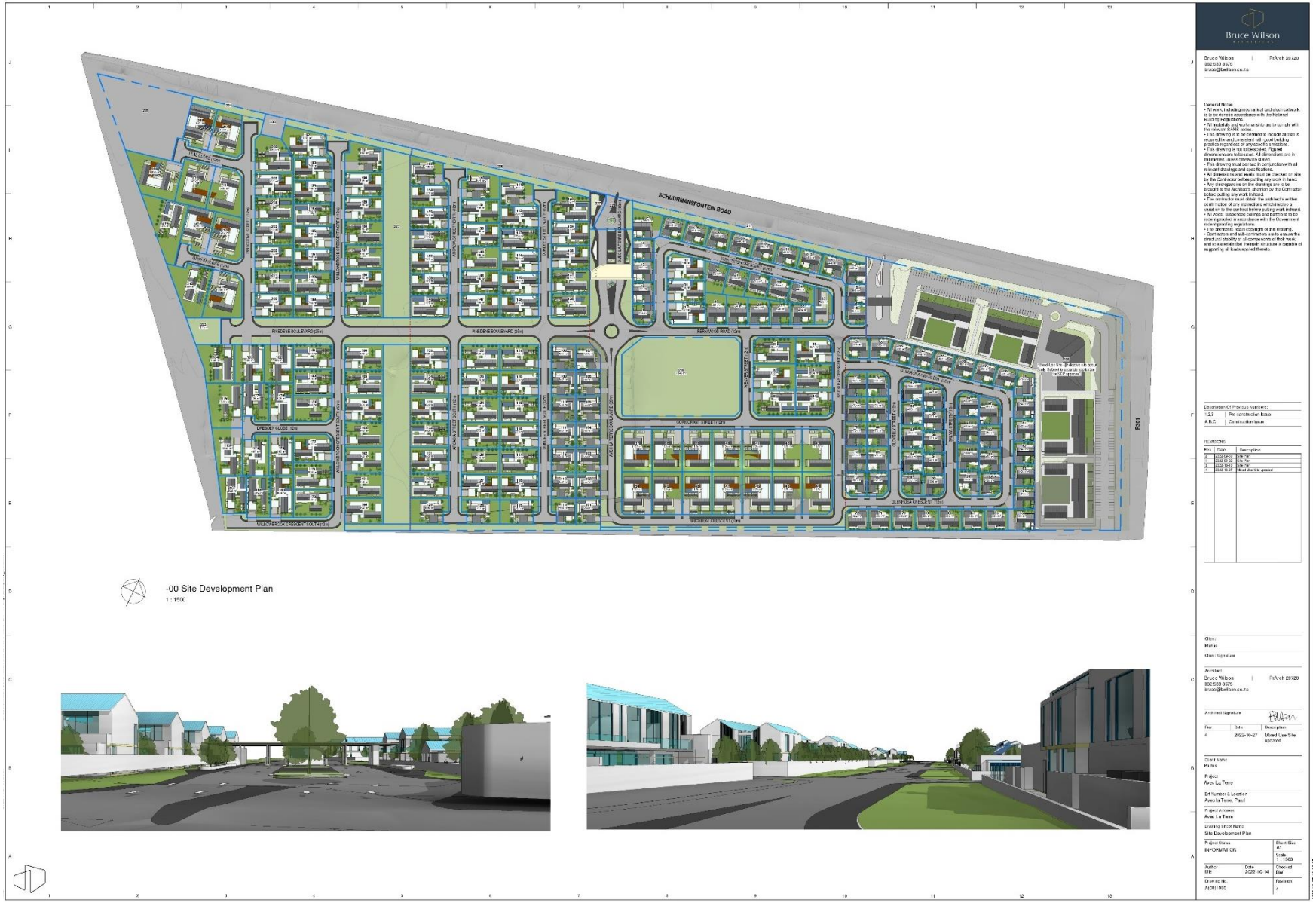

Figure 43: Concept Site Development Plan – Alternative A.

4. Technology Alternative

The proposal is for the development of a residential and mixed-use development and associated infrastructure; no technology alternatives were considered.

5. Operational Alternatives

The proposal is for the development of a residential and mixed-use development and associated infrastructure; no operational alternatives were considered.

6. No-Go Option

The "no-go" or no development option will result in the *status quo* of the site being maintained. Consequently, the land located within the Drakenstein urban edge, that is earmarked for development within the Drakenstein Municipality Spatial Development Framework (2022), will not be utilized as intended.

The no-go alternative would result in no changes to the state of the vegetation and freshwater characteristics of the site from the current state. Alien vegetation will continue to spread in areas that is not being used for farming.

This alternative will result in the lost socio-economic opportunities associated with the proposed development.

The no-go option is therefore not preferred.

7. Other Alternatives

The proposal is for the development of a residential and mixed-use development and associated infrastructure; no further alternatives were considered.

8. Outcome of Site Selection Matrix

The site, Portion 11 of Farm No. 1426, Paarl, is the only site considered. No property or site alternatives were considered as part of this application since the proposed development entails the rezoning and subdivision of the subject property to allow for the establishment of a residential and mixed-use development and associated infrastructure.

An iterative process with input from specialists has been followed as part of this process to formulate an alternative that is least invasive to the environment and most consistent with the applicable guidelines and policies discussed under **Section C** of this report.

This is the only site considered for the proposed development.

9. Concluding Statement

As already stated, the preferred alternative entails the rezoning and subdivision of the Portion 11 of Farm No. 1426, Paarl, to allow for the establishment of a residential and mixed-use development and associated infrastructure.

An iterative process has been followed by the project team to avoid negative impacts by using the specialists' constraints analyses to inform the preferred layout.

The preferred alternative is considered to be feasible and reasonable as it is in line with the planning policies, and it also takes into account any sensitive environmental aspects. Alternative A, the preferred layout alternative (Alternative B), and no-go option will be assessed further in the EIA process.

SECTION H: NEED AND DESIRABILITY

The consideration of 'need and desirability' requires the consideration of the context of the proposal along with the broader societal needs and the public interest. According to the DEA&DP's Guidelines on Need and Desirability, the concept of need and desirability can be explained as need refers to time and desirability to place – i.e., is this the right time and place for locating the type of land use being proposed? Need and desirability can be equated to wise use of land – i.e., the question of what the most sustainable use of land is.

It is believed that through the adequate consideration of need and desirability throughout the environmental process, it will ensure that the "best practicable environmental option" is pursued.

The following table, **Table 8** is based on the Guideline for Need and Desirability (DEA, 2014) and is used to motivate the Need and Desirability of this proposal. Please note this table will be further informed by the outcomes of the Scoping Phase and Impact Assessment Reports and will be updated and included in the EIA Report.

Table 8: Motivation for Need and Desirability.

Guideline	EAP Response
1. How will this development (and its separate elements/aspects) impact on the ecological integrity of the area?	The ecological aspects of the site will be considered, and all potential impacts and risks will be assessed in the EIA Report.
• How were the following ecological integrity considerations taken into account? o Threatened Ecosystems,	The 2018 Vegetation Map of South Africa5 mapped the Swartland Alluvium Fynbos vegetation type, classified as Endangered, in this area. As mentioned in **Subsection 7 of Section E** in this report, the site is completely transformed as a result of farming and mining activities and invasion by alien vegetation. The proposed development is not expected to affect any terrestrial biodiversity areas of conservation importance; however, a Site Sensitivity Verification and Terrestrial Biodiversity Compliance Statement will be compiled in the EIA phase.
o 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,	Patches of wetland vegetation were found within the site that are indicative of seasonal wetness. An Aquatic Ecosystems Assessment will be undertaken to assess the potential impact on aquatic features. The Aquatic Ecosystems Assessment will be provided in the EIA phase.
o Critical Biodiversity Areas ("CBAs") and Ecological Support Areas ("ESAs"), o Conservation targets, o Ecological drivers of the ecosystem,	The WCBSP mapping for the site shows some aquatic CBAs within the site that are associated with the existing dam, as well as some scattered wetlands on the western side and northern boundary of the site. Much of the area surrounding the aquatic CBA is mapped as aquatic ESAs. Refer to **Section E 3.** of this report. The WCBSP mapping also shows the majority of the site as ESA2 and small patches of CBA1: Terrestrial and CBA2: Terrestrial. The vegetation

[5]South African National Biodiversity Institute. 2018 Final Vegetation Map of South Africa, Lesotho and Swaziland [Vector] 2018. Available from the Biodiversity GIS https://bgis.sanbi.org/SpatialDataset/Detail/1674, downloaded on 10 February 2020.

Guideline	EAP Response
	of the site is however transformed and the WCBSP data is deemed inaccurate. Refer to **Section E 7.2.2.** of this report. This will be considered further in the EIA phase.
o Environmental Management Framework	Refer to **Section D 3.3.** of this report.
o Spatial Development Framework, and	Refer to **Section D 3.2.** of this report.
o Global and international responsibilities relating to the environment (e.g., RAMSAR sites, Climate Change, etc.).	The potential impacts associated with proposed development is not expected to extend beyond the Drakenstein Municipality. There are no RAMSAR sites present on site. It is important not to ignore the fact the Western Cape went through an extreme drought period from 2015 – 2017, that lead to a water crisis in the City of Cape Town Metro and surrounding municipal areas. The Drakenstein municipal area was also affected. The water crisis which had a great impact on society, and it important to avoid such a crisis in the future. Climate change could potentially impact every type of natural resource, e.g., the potential to generate energy could be altered. Sustainability measures will be incorporated into the architectural design philosophy of the proposed development.
• How will this development disturb or enhance ecosystems and/or result in the loss or protection of biological diversity? What measures were explored to firstly avoid these negative impacts, and where these negative impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance by the project team positive impacts?	The proposed development will not impact on vegetation. All potential positive and negative aquatic impacts will be assessed by the aquatic specialists as part of the EIA phase. The mitigation hierarchical approach will be followed to manage the impacts and risks identified by specialists. An iterative process will be followed throughout the Scoping and EIA process to avoid negative impacts by using the specialists' constraints analyses to inform the layout.
• How will this development pollute and/or degrade the biophysical environment? What measures were explored to firstly avoid these impacts,	The mitigation hierarchical approach will be followed to manage all potential impacts and risks. Pollution and degradation of the

Guideline	EAP Response
and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?	biophysical environment will be avoided as far as possible, however where impacts could not be avoided measures to reduce negative impacts to an acceptable level will be provided. Management measures will be discussed where impacts will require continued management. Mitigation and management measures will be discussed in the specialist studies, the EIA Report and the EMPr.
• What waste will be generated by this development? What measures were explored to firstly avoid waste, and where waste could not be avoided altogether, what measures were explored to minimise, reuse and/or recycle the waste? What measures have been explored to safely treat and/or dispose of unavoidable waste?	The proposed development will generate waste during both the construction and operational phases. In the case of the proposed development, an integrated waste management system which includes waste minimisation, waste recycling and the proper storage and disposal of waste, which does not impact of the health of the environment and human health, must be adopted where possible.
• How will this development disturb or enhance landscapes and/or sites that constitute the nation's cultural heritage? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?	The proposed development will change the character of the site. The landscape character into which this development would be placed is not of high scenic value. Its value lies in the sense that it has been cultivated over a long period of time and there are certain groups and lines of trees which make a positive contribution to the landscape and should be retained within a new development. As mentioned in **Section C 6.** of this report, HWC responded to the NID stating that there is no reason to believe that the proposed mixed-use development will impact on heritage resources, no further action under Section 38 of the NHRA is required. Refer to the response from HWC included under **Appendix E1** of this report.
• How will this development use and/or impact on non-renewable natural resources? What measures were explored to ensure responsible and equitable use of the resources? How have the consequences of the depletion of the non-renewable natural resources been considered? What measures were	Potable water will be obtained from the Drakenstein Municipality. The following water saving measures are being recommended, where possible:

Guideline	EAP Response
explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?	• Rainwater harvesting tanks, which collects stormwater run-off from roofs and hardened surfaces, will be recommended as part of the estates building guidelines. • The use of grey water systems, water saving toilets, water saving shower heads etc. are recommended. Electricity will also be supplied by Drakenstein Municipality. In addition to the above, the following energy saving measures are recommended, but not limited to: • Rooftop solar PV is strongly encouraged. • Energy efficient light bulbs, such as CFLs or LEDs, will be used where possible. • All external lights will be fitted with day-night sensors to automatically activate the lamps once daylight diminishes. • When the retail or institutional facilities are not in use, all internal lights will be switched off. • Geyser blankets and timers to be installed on all geysers.
• How will this development use and/or impact on renewable natural resources and the ecosystem of which they are part? Will the use of the resources and/or impact on the ecosystem jeopardise the integrity of the resource and/or system taking into account carrying capacity restrictions, limits of acceptable change, and thresholds? What measures were explored to firstly avoid the use of resources, or if avoidance is not possible, to minimise the use of resources? What measures were taken to ensure responsible and equitable use of the resources? What measures were explored to enhance positive impacts?	The proposed development is not expected to impact on any renewable natural resources. Measures to avoid, mitigate and manage impacts will be included within the EMPr that will be compiled during the EIA phase and included within the EIA Report.
o Does the proposed development exacerbate the increased dependency on increased use of resources to maintain economic growth or does it reduce resource dependency (i.e., de-materialised growth)? (Note sustainability requires that settlements reduce their ecological footprint by using less material and energy demands and reduce the amount of waste they generate, without compromising their quest to improve their quality of life)	An EMPr will be compiled as part of the EIA Report to deal with the following principles, amongst others: • that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised, and remedied;

Guideline	EAP Response
○ Does the proposed use of natural resources constitute the best use thereof? Is the use justifiable when considering intra- and intergenerational equity, and are there more important priorities for which the resources should be used (i.e., what are the opportunity costs of using these resources this the proposed development alternative?) ○ Do the proposed location, type and scale of development promote a reduced dependency on resources?	• that waste is avoided, or where it cannot be altogether avoided, minimised, and re-used or recycled where possible and otherwise disposed of in a responsible manner; • that the use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource; • that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised, and remedied. Responsibility for the environmental health and safety consequences of a policy, programme, project, product, process, service, or activity exists throughout its life cycle. Community wellbeing and empowerment must be promoted through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means.
• How were a risk-averse and cautious approach applied in terms of ecological impacts? ○ What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)? ○ What is the level of risk associated with the limits of current knowledge? ○ Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?	The precautionary approach has been adopted for this assessment. Detailed assessments of all potential impacts will be provided during the EIA phase to reduce uncertainties, assumptions, and gaps. The assumption is made that the information on which this report is based (project information, engineering reports and specialist input) is correct, factual, and truthful.
• How will the ecological impacts resulting from this development, impact on people's environmental right in terms following: ○ Negative impacts: e.g., access to resources, opportunity costs, loss of amenity (e.g., open space), air and water quality impacts, nuisance (noise, odour, etc.), health impacts, visual impacts, etc. What	The proposed development is not expected to have a negative impact on people's environmental right. A detailed impact assessment will be undertaken and described in the EIA Report. Measures to avoid, mitigate and manage negative impacts and promote positive impacts will be included within the EMPr.

Guideline	EAP Response
measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts? o Positive impacts: e.g., improved access to resources, improved amenity, improved air or water quality, etc. What measures were taken to enhance positive impacts? o Describe the linkages and dependencies between human wellbeing, livelihoods and ecosystem services applicable to the area in question and how the development's ecological impacts will result in socio-economic impacts (e.g., on livelihoods, loss of heritage site, opportunity costs, etc.)? • Based on all of the above, how will this development positively or negatively impact on the ecological integrity objectives/targets/considerations of the area? • Considering the need to secure ecological integrity and a healthy biophysical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the "best practicable environmental option" in terms of ecological considerations?	One of the principles of the EMPr will be that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied. The EMPr will also encourage and promote community wellbeing and empowerment through environmental education of workers during construction.
• Describe the positive and negative cumulative ecological/biophysical impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and existing and other planned developments in the area?	Cumulative impacts will be identified and assessed by specialists during the EIA phase and discussed in the specialist reports and EIA Report.
2. "Promoting justifiable economic and social development" • What is the socio-economic context of the area, based on, amongst other considerations, the following considerations? o The IDP (and its sector plans' vision, objectives, strategies, indicators and targets) and any other strategic plans, frameworks of policies applicable to the area	The site has been identified in the Drakenstein SDF for "Urban Infill" and the proposed development is in line with most of the applicable planning policies and guidelines. Refer to **Section D** of this report for a detailed explanation.

Guideline	EAP Response
○ Spatial priorities and desired spatial patterns (e.g., need for integrated of segregated communities, need to upgrade informal settlements, need for densification, etc.) ○ Spatial characteristics (e.g., existing land uses, planned land uses, cultural landscapes, etc.), and ○ Municipal Economic Development Strategy ("LED Strategy")	
• Considering the socio-economic context, what will the socio-economic impacts be of the development (and its separate elements/aspects), and specifically also on the socio-economic objectives of the area? ○ Will the development complement the local socio-economic initiatives (such as local economic development (LED) initiatives), or skills development programs?	The proposed development will potentially create employment opportunities during the construction and operational phases of the development as well as the additional benefits for the local economy thought the creation of new investment opportunities.
• How will this development address the specific physical, psychological, developmental, cultural and social needs and interests of the relevant communities?	The proposed development will provide new employment and business opportunities to the local community.
• Will the development result in equitable (intra- and inter-generational) impact distribution, in the short- and long-term? Will the impact be socially and economically sustainable in the short- and long-term?	The proposal entails the rezoning and subdivision of the site to establish a residential estate with a mixed-use component within the urban edge of the Drakenstein municipal area. The site has been earmarked for "Urban-Infill" purposes and the proposed development is considered to be in line with the Municipal planning policies and guidelines.

• In terms of location, describe how the placement of the proposed development will: o result in the creation of residential and employment opportunities in close proximity to or integrated with each other, o reduce the need for transport of people and goods, o result in access to public transport or enable non-motorised and pedestrian transport (e.g., will the development result in densification and the achievement of thresholds in terms public transport) o compliment other uses in the area o be in line with the planning for the area, o for urban related development, make use of underutilised land available with the urban edge o optimise the use of existing resources and infrastructure o opportunity costs in terms of bulk infrastructure expansions in non-priority areas (e.g., not aligned with the bulk infrastructure planning for the settlement that reflects the spatial reconstruction priorities of the settlement) o discourage "urban sprawl" and contribute to compaction/densification, o contribute to the correction of the historically distorted spatial patterns of settlements and to the optimum use of existing infrastructure in excess of current needs o encourage environmentally sustainable land development practices and processes o take into account special locational factors that might favour the specific location (e.g., the location of a strategic mineral resource, access to the port, access to rail, etc.), o the investment in the settlement or area in question will generate the highest socio-economic returns (i.e., an area with high economic potential), o impact on the sense of history, sense of place and heritage of the area and the socio-cultural and cultural-historic characteristics and sensitivities of the area, and o in terms of the nature, scale and location of the development promote or act as a catalyst to create a more integrated settlement?	The proposal entails the rezoning and subdivision of the site to establish a residential estate with a mixed-use component within the urban edge of the Drakenstein municipal area. The site has been earmarked for "Urban-Infill" purposes and the proposed development is considered to be in line with the Municipal planning policies and guidelines.

Guideline	EAP Response
• How were a risk-averse and cautious approach applied in terms of socio-economic impacts? o What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)? o What is the level of risk (note: related to inequality, social fabric, livelihoods, vulnerable communities, critical resources, economic vulnerability and sustainability) associated with the limits of current knowledge? o Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?	The precautionary approach has been adopted for this assessment. Assessments of all potential impacts will be undertaken during the EIA phase to reduce uncertainties, assumptions, and gaps.
• How will the socio-economic impacts resulting from this development impact on people's environmental right in terms following: o Negative impacts: e.g., health (e.g., HIV-Aids), safety, social ills, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts? o Positive impacts. What measures were taken to enhance positive impacts?	The proposed development is not expected to impact on people's environmental right. Measures will be provided in the EMPr to avoid any impacts on people's environmental right during the construction phase. I&APs will be provided with opportunities to comment on the proposed development during this Scoping and EIA process, thereby ensuring that all people's needs, rights and concerns will be addressed through this process.
• Considering the linkages and dependencies between human wellbeing, livelihoods and ecosystem services, describe the linkages and dependencies applicable to the area in question and how the development's socio-economic impacts will result in ecological impacts (e.g., over utilisation of natural resources, etc.)?	No natural resources will be over-utilised. The specialist and EAP will assess all potential environmental impact and risks associated with the proposed development during the EIA phase. This will be discussed in the EIA phase.
• What measures were taken to pursue the selection of the "best practicable environmental option" in terms of socio-economic considerations?	The proposed development is designed to remain sensitive to the surrounding rural setting. Protected environmental elements in the surrounding area will not be affected and no sensitive environmental resources were identified on site.

Guideline	EAP Response
	The proposed development is not expected to have any environmental impacts that will result in fatal flaws providing all the mitigation and management measures to be provided in the EMPr as part of the EIA process are implemented. Furthermore, the proposed development is considered to be in line with all the relevant planning policies and guidelines. Refer to **Section D** of this report for more detail.
• What measures were taken to pursue environmental justice so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons (who are the beneficiaries and is the development located appropriately)? Considering the need for social equity and justice, do the alternatives identified, allow the "best practicable environmental option" to be selected, or is there a need for other alternatives to be considered? • What measures were taken to pursue equitable access to environmental resources, benefits and services to meet basic human needs and ensure human wellbeing, and what special measures were taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination?	The developer will be encouraged to inform the local authorities, local community leaders, organizations and councillors of the proposed development and the potential job opportunities for local builders and contractors. The use of local building contractors and workers is recommended, yet it is recognised that a competitive tender process may not guarantee the employment of local companies and labour during the construction phase. The developer in consultation with the appointed contractor/s should consider employing a percentage of the labour required for the construction phase from local area in order to maximize opportunities for members from the local communities.
• What measures were taken to ensure that the responsibility for the environmental health and safety consequences of the development has been addressed throughout the development's life cycle?	Under South African environmental legislation, the Applicant is accountable for the potential impacts of the activities that are undertaken and is responsible for managing these impacts throughout the development's life cycle. The Applicant therefore has overall and total environmental responsibility to ensure that the EMPr is implemented and that both the EMPr and the Environmental Authorisation are complied with at all times. The Applicant is also responsible for ensuring that all other environmental and water related legislation is complied with.

Guideline	EAP Response
• What measures were taken to: o ensure the participation of all interested and affected parties, o provide all people with an opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, o ensure participation by vulnerable and disadvantaged persons o promote community wellbeing and empowerment through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means, o ensure openness and transparency, and access to information in terms of the process, o ensure that the interests, needs and values of all interested and affected parties were taken into account, and that adequate recognition were given to all forms of knowledge, including traditional and ordinary knowledge, and o ensure that the vital role of women and youth in environmental management and development were recognised and their full participation therein were be promoted?	Three rounds of public participation will be undertaken as part of this Scoping and EIA process. Refer to Section I of this report for a detailed description of the PPP to be undertaken. Various methods will be used to notify potential I&APs of the proposed development and the opportunity to partake in the PPP as part of the Scoping and EIA process. These methods include advertisements in newspapers, site notices, giving written notification to the occupiers of the site, the owner and/or person in control of the site, giving written notice to the landowners and/or occupiers of the properties adjacent to the site.
• Considering the interests, needs and values of all the interested and affected parties, describe how the development will allow for opportunities for all the segments of the community (e.g. a mixture of low-, middle-, and high-income housing opportunities) that is consistent with the priority needs of the local area (or that is proportional to the needs of an area)?	The municipal councillor of the ward in which the site is situated and any organisation or ratepayers that represent the community in the area will be invited to take part in the public process during the Scoping and EIA process. The local community will be provided with the opportunity to raise any concerns they may have with the proposed development. All issues and concerns raised during the PPP will be addressed through the Scoping and EIA process.
• What measures have been taken to ensure that current and/or future workers will be informed of work that potentially might be harmful to human health or the environment or of dangers associated with the work, and what measures have been taken to ensure that the right of workers to refuse such work will be respected and protected?	Health and safety concerns will be addressed in the EMPr to be compiled as part of the EIA Report. The Contractor shall at all times observe the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) and ensure adequate safety precautions on the site throughout the development phase. An Environmental Control Officer (ECO) must be appointed to monitor compliance with the EMPr during the development phase. This will be a condition of the environmental authorisation.

Guideline	EAP Response
• Describe how the development will impact on job creation in terms of, amongst other aspects: o the number of temporary versus permanent jobs that will be created, o whether the labour available in the area will be able to take up the job opportunities (i.e., do the required skills match the skills available in the area), o the distance from where labourers will have to travel, o the location of jobs opportunities versus the location of impacts (i.e., equitable distribution of costs and benefits), and o the opportunity costs in terms of job creation (e.g., a mine might create 100 jobs, but impact on 1000 agricultural jobs, etc.).	The proposed development is expected to create new employment opportunities during the development phase. The majority, if not all, of the employment opportunities are likely to benefit previously disadvantaged individuals from the local community. Given the high unemployment levels in the surrounding areas, coupled with the low income and education levels, this would represent a positive social impact. The operational phase of the proposed development will also create opportunities for local businesses, such as local maintenance and building companies, garden services and security companies, and create opportunities for new businesses to develop.
• What measures were taken to ensure: o that there were intergovernmental coordination and harmonisation of policies, legislation and actions relating to the environment, and o that actual or potential conflicts of interest between organs of state were resolved through conflict resolution procedures?	State departments and organs of state that administers a law relating to a matter affecting the environment relevant to the application for Environmental Authorisation, as well as those identified by the competent authority, will be consulted during the PPP to be undertaken as part of the BA process. Consultation with the state departments and organs of state will assist in coordination of policies and legislation relating to the environment. The consultation process will be undertaken during the PPP. In terms of the Agreement for the One Environmental System the process for a WULA and EIA must be aligned and integrated with respect to the fixed synchronised timeframes, as prescribed in the EIA Regulations, 2014 (as amended) and the 2017 WULA Regulations (GN R. 267 of 24 March 2017). This Scoping and EIA process will therefore take cognisance of this and will be carried out accordingly.
• What measures were taken to ensure that the environment will be held in public trust for the people, that the beneficial use of environmental resources will serve the public interest, and that the environment will be protected as the people's common heritage?	The overarching purpose of the Scoping and EIA process is to determine, assess and evaluate the consequences (positive and negative) of a proposed development. An iterative approach will be followed as part of this Scoping and EIA process, in order to achieve the key purpose of EIA, which is to identify solutions, approaches or options for development that best meets sustainability objectives. Throughout the Scoping and EIA process there will be opportunities to

Guideline	EAP Response
	constantly refine and adapt the development proposal to respond to these issues or concerns, in relation to the environmental factors. The PPP to be undertaken as part of the Scoping and EIA process will provide members of the public (or I&APs) with the opportunity to raise any environmental concerns related to the proposed development. All issues and concerns raised will be addressed during the Scoping and EIA process.
• Are the mitigation measures proposed realistic and what long-term environmental legacy and managed burden will be left? • What measures were taken to ensure that he costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects will be paid for by those responsible for harming the environment?	Mitigation measures will be developed during the EIA phase. These measures will be incorporated in the EMPr, and it will also become conditions of the environmental authorisation, should it be granted. The Applicant will be responsible for the implementation of and for compliance with the conditions of all environmental related approvals.
• Considering the need to secure ecological integrity and a healthy bio-physical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the best practicable environmental option in terms of socio-economic considerations?	A preliminary identification of alternatives is provided in **Section G** of this report. Alternatives will be assessed further during the EIA phase.
• Describe the positive and negative cumulative socio-economic impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and other planned developments in the area?	Impacts and risks will be assessed as part of the EIA phase. Refer to **Section J 3.** of this report for a description of the potential impacts and risks identified during the Scoping phase.

SECTION I: PUBLIC PARTICIPATION PROCESS

This section outlines the various tasks to be undertaken as part of the Public Participation Process (PPP) as required in terms of Regulation 41 of the EIA Regulations, 2014 (as amended), and DEA&DP's Guideline and Information Document Series [Guideline on Public Participation].

Two rounds of public consultation and authority review will be undertaken for this EIA process, this includes the distribution of the draft Scoping Report (completed), and the distribution of the draft EIA Report (to be undertaken).

Potential Interested and Affected Parties ("I&APs") and Organs of State have been identified throughout this EIA process. An I&AP register, referred to as the "PPP Register", has been opened and will be maintained for the duration of this project. The PPP Register will be made available to any person requesting access in writing. The **PPP Register** is included under **Appendix G1** of this report.

Below is a summary of the PPP undertaken as part of the statutory process.

- English and Afrikaans media notices was published in the *Paarl Post* newspaper on 02 February 2023. Refer to the proof of media notices published included in **Appendix G2** of this report.

- Notice boards were fixed at a place conspicuous to and accessible by the public at the boundary of the site. Refer to the proof included in **Appendix G3** of this report.

- The Draft Scoping Report was made available for a 30-day commenting period to potential I&APs and Organs of State with jurisdiction over the proposed activities. The comment period was undertaken from **02 February 2023 until 06 March 2023**.

  Potential I&APs and Organs of State with jurisdiction in the area, were notified in writing of the availability of the Draft Scoping Report. Refer to the proof of notifications sent included in **Appendix G4**.

- All comments received on the Draft Scoping Report was considered and, where practical and relevant, included in this Final Scoping Report. Copies of the comments received are included in **Appendix G5**.

- All comments received were responded to in the Comments and Response Report included in **Appendix G6** of this report.

1. Relevant State Departments and Organs of State

The following Organs of State and State Departments were requested to provide comment on the Draft Scoping Report during the initial public consultation period:

- CapeNature
- Cape Winelands District Municipality
- DEA&DP: Biodiversity and Coastal Management
- DEA&DP: Development Management
- DEA&DP: Pollution and Chemicals Management
- DEA&DP: Waste Management
- Department of Agriculture, Land Reform and Rural Development
- Drakenstein Municipality
- Heritage Western Cape
- Western Cape Department of Agriculture
- Western Cape Department of Transport and Public Works
- Western Cape Department of Water and Sanitation

The following Organs of State and State Departments however have not provided a comment on the draft Scoping Report but will be requested to provide comment in the EIA phase:

- Cape Winelands District Municipality
- DEA&DP: Biodiversity and Coastal Management (*CapeNature comments on biodiversity aspects)*
- DEA&DP: Waste Management
- Department of Agriculture, Land Reform and Rural Development
- Heritage Western Cape
- Western Cape Department of Agriculture
- Western Cape Department of Transport and Public Works
- Western Cape Department of Water and Sanitation

2. Summary of issues raised by I&APs

No issues or concerns were raised by I&APs on the draft Scoping Report.

3. Summary of comments by Organs of State

A summary of any conditional aspects identified and/or highlighted by Organs of State, which have jurisdiction in respect of any aspect of the relevant activities are provided below.

Organ of State	Summary of Comment
CapeNature	Cape Nature has no major concerns from a biodiversity perspective at this stage. They support the implementation of an aquatic corridor within the development.
DEA&DP Directorate: Development Management, Region 1 (Competent Authority)	This directorate requested the following: • Clarity regarding the applicability of certain listed activities. • Confirmation of sufficient capacity to provide the necessary services to the proposed development.
DEA&DP Directorate: Pollution and Chemicals Management	This directorate supports the inclusion of input from an aquatic specialist. It is recommended that the monitoring programme for the proposed Wastewater Treatment Plant is detailed and incorporated into, or appended to, the EMPr. The directorate supports the inclusion of the Stormwater Management Plan (SWMP). It is further recommended that the aquatic specialist provide comment on the SWMP and proposed water quality monitoring programme to be incorporated into the EMPr with respect to treated effluent, wastewater management, irrigation, runoff and overflow and the potential impact it may have on water resources.
Drakenstein Municipality Planning and Development: Heritage Resources	The proposed development is not supported from a heritage perspective.

Organ of State	Summary of Comment
Drakenstein Municipality Planning and Development: Spatial Planning	The development is supported from a spatial planning point of view, subject to the redesign of the proposed development layout that specifically considers the surrounding existing land uses.
Drakenstein Municipality Planning and Development: Land Use Planning and Surveying	Since the information provided within the Scoping Report is in line with the information contained in the Land Use Application, there is no further comment from a land use management perspective.
Drakenstein Municipality Civil Engineering Services	No municipal infrastructure is available for water, sewer, and stormwater. Developer will be responsible to implement the findings of the GLS Report dated 16 September 2022. The proposed treatment works must get the necessary authorisation. A Stormwater Management Plan must be submitted during the Land Use Application phase. Refuse to be collected at the entrance of the development by Drakenstein Municipality and carted to the municipal landfill.
Drakenstein Municipality Electro Technical Services	The area requires networks upgrading that is subject to funding being available.
Drakenstein Municipality Environmental Management Section	The Heritage Resource Sub-section requires additional information to mitigate impact on the cultural landscape and scenic quality. The Environmental Management Section also raised some concerns during the evaluation of the proposal that needs to be addressed.

All comments received were responded to in the Comments and Response Report included in **Appendix G6** of this report.

SECTION J: ENVIRONMENTAL IMPACTS AND RISKS

1. Environmental Screening

This section contains a summary of the most environmental sensitive features on the site based on the site sensitivity screening results identified using the National Web Based Environmental Screening Tool.

1.1. Environmental Sensitivity

Refer to the **Screening Report** (**Appendix H1**). The environmental sensitivities for the proposed development as identified by the screening tool, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified can be confirmed.

Site verifications were undertaken by the EAP for the environmental sensitivities identified by the screening tool. Refer to the **Site Sensitivity Verification Report** included in **Appendix H2**.

2. Assessment Methodology

The impact assessment criteria used in this scoping process, is drawn from the EIA Regulations published by the Department of Environmental Affairs and Tourism (April 1998) in terms of the Environmental Conservation Act, 1989 (Act No. 73 of 1989) and the latest basic assessment report template provided by DEA&DP and the DEA&DP Guidelines for involving Biodiversity Specialists in EIA Processes, 2005.

The complete **Impact Assessment Methodology** is included under **Appendix H3** of this report.

3. Potential Environmental Impacts and Risks

A description of the potential impacts and risks anticipated, during the planning and design (pre-construction) and development (construction), and operational (post-construction) phases, as well as the possible mitigation measures to minimise those impacts, are provided in **Table 9** and **Table 10** respectively.

The preliminary impact assessment tables with description of potential impacts and risks identified for each alternative, including the nature, consequence, extent, duration and probability of the impacts, including the degree to which these impacts can be reversed; may cause irreplaceable loss of resources; and can be avoided, managed or mitigated are provided in the **Impact Assessment Tables** included in **Appendix H4** of this report.

3.1. Potential impacts anticipated during the Planning, Design and Development phase.

Table 9: Potential environmental impacts and risks foreseen during the planning, design phase (pre-development) and development phase (construction).

Description of Activity	Aspects	Potential Impact	Possible Mitigation Measures
Geographical, Geological and Physical Aspects			
During the construction phase, the potential for negative impacts on the shallow perched primary aquifer quality exist. These pertain predominantly to the earth moving equipment and vehicles which represent potential pollution sources. Additionally, the mixing and use of materials and concrete may impact on local macro chemical concentrations.	Accidental spillages	Potential contamination of shallow perched aquifer	1. Earth moving equipment and vehicles needs regular inspection for leaks. 2. Hydrocarbon contamination would require removal of contaminated soil. 3. Necessary environmental supervision is required.
Should deep/large excavations expose the groundwater, there is also potential for evaporative losses from the aquifer. Should dewatering be required, the abstraction of groundwater will locally lower the water table.	Dewatering of excavations	Dewatering of shallow aquifer	1. Cease dewatering. Water levels will naturally be restored, particularly considering the proposed infiltration of wastewater.
The site is currently partially overgrown by Alien Vegetation. Should the alien vegetation population stay at the current size or increase it will potentially have a negative impact on the shallow perched aquifer. The root systems of the alien vegetation reached deeper underground compared to the local vegetation, thus decreasing the water level in the shallow aquifer to a point where the water is no longer accessible to local fauna. Should the development proceed the alien vegetation will be removed.	Removal of Alien vegetation	Potential positive impact on shallow groundwater level	No mitigation required.

Description of Activity	Aspects	Potential Impact	Possible Mitigation Measures
The development of agricultural land will result in the exclusion of potential future agricultural production from the site.	Rezoning of agricultural land	Loss of agricultural land	No mitigation required.
Ecological Aspects			
The proposed development will require the clearance of vegetation.	Site clearing and earthworks	Potential Loss of Swartland Alluvium Fynbos	None required.
It is proposed that the existing wetland areas be replaced with the wetland corridor and stormwater ponds within the site.	Infilling of wetlands	Potential modification of watercourse flow and water quality	1. The created wetland areas within the site should comprise suitable local indigenous vegetation, as has been recommended in this report. The proposals included in the landscape plan for the site are supported. 2. The proposal to treat the wastewater on-site to special limits before discharge to the stormwater ponded areas before entering the created wetland areas are supported. 3. Invasive alien grasses such as *Pennisetum clandestinum* should not be planted in the wetland corridor or adjacent to the stormwater ponds and any growth of the grass should be removed/controlled. 4. The stormwater management plan for the site should ensure that any impacts of stormwater from the site are mitigated as far as possible within the site (measures such as the use of permeable surfaces, re-use of runoff from built areas such as roofs as well as the use of measures such as swales) to minimise the stormwater impacts on the created wetland habitat. 5. Where necessary pre-treatment areas such as oil, sediment and litter traps should be included in the stormwater management design before discharge into the wetland areas.

Description of Activity	Aspects	Potential Impact	Possible Mitigation Measures
			6. The water quality impacts during the construction phase should be addressed in the EMPr for the project and implemented by an onsite ECO. 7. Ongoing monitoring and removal of invasive alien plants such as kikuyu grass are likely to be required within the wetland areas. With the creation of stormwater management and wetland areas, consideration should be given to discouraging the nuisance growth of bulrushes that would require ongoing management.
Socio-Economic Aspects			
The proposed development has the potential to provide new business and employment opportunities during the construction phase of the development.	Business and employment opportunities	Potential positive impact on local employment and business	The use of local contractors and workers and local procurement are recommended.
Cultural Landscapes and Visual Aspects			
Transformation of land-use from vacant/agriculture to mixed-use and residential – clearing of vegetation to replace with development.	Visible site clearing activities, earthworks and construction works	Potential impact on sense of place	**<u>PLANNING & DESIGN PHASE</u>** 1. Detailed Development Guidelines must be compiled for the overall development. Refer to **Section J 4.** of this report for the detailed visual impact mitigation measures to be considered. 2. **<u>Residential component</u>** a. **Guidelines addressing General and outdoor lighting within and around the Residential estate.** Light pollution should be kept to an absolute minimum throughout the development, and exterior lighting must be limited to areas where this is necessary for utility, safety, and security.
The proposed development will result in – • changes to or interruption of characteristic long views over the agricultural landscape towards the encircling mountains; • the introduction of new built form, associated infrastructure and landscape features into the foreground of scenic views; and • the loss of rural/agricultural interface conditions	Visible site clearing activities, earthworks and construction works	Potential impact on visual amenity of the R301 Scenic route	

Description of Activity	Aspects	Potential Impact	Possible Mitigation Measures
The proposed development will have direct and indirect effects on local heritage and other protected resources (e.g.; the Taal Monument, Mandela house, Hawequa Nature Reserve, Wemmershoek HOZ etc.).	Visible site clearing activities, earthworks and construction works	Potential impact on local heritage and other protected resources	b. **Guidelines addressing Fencing and Boundary wall treatment for the Residential estate.** A fencing and boundary treatment plan must be provided as key additional information to be included in the suite of official project documentation. c. **Tree specification and irrigation design within the Residential estate must be provided in the Landscaping and Development Guidelines.** It must be demonstrated that the irrigation of the proposed trees (their irrigation source, storage, and irrigation system design), especially those for screening along the Schuurmansfontein road, is sufficient during and after the establishment period to ensure their successful establishment and survival. d. **Details on the timing of landscaping installation for the Residential estate must be provided in the Landscaping and Development Guidelines.** 3. **<u>The Mixed-Use Component</u>** a. The SDP application for the Mixed-use component must be accompanied by a Visual Statement to be prepared by an independent visual specialist. b. Architectural Guidelines to be submitted at SDP stage.
The proposed development will have direct and indirect effects on sensitive viewers moving along the R301 Scenic route in both directions. This includes the R301 and the Schuurmansfontein Road interfaces which are visible from the scenic route over the open fynbos landscape of Farm 888.	Visible site clearing activities, earthworks and construction works	Potential impact on commuters on the R301 Scenic route	
The Construction phase of the development will result in the generation of dust (airborne, and as mud tracks on adjacent roads), the visibility of excavations and partially constructed buildings prior to finishing, the visibility of plant, machinery site offices and construction signage, the removal of large areas of existing vegetation, etc.).	Visible site clearing activities, earthworks and construction works	Potential impact on local sensitive receptors	

Description of Activity	Aspects	Potential Impact	Possible Mitigation Measures
			CONSTRUCTION PHASE a. Dust management, waste management, the placement of screens and hoarding, as well as the location and management of access points to the site must be proactively managed to reduce visual clutter and limit visual impacts associated with construction activity before, during and after each phase of the construction process (demolition, excavation, project execution, close-out etc., establishment, etc.) b. All construction personnel must undergo environmental awareness training in terms of the EMPr requirements to be provided in the EIA phase. c. For the duration of the civils contracts, the contract time should be kept to the minimum, road junctions should have good sightlines, traffic control measures, signage, and dust control measures in place. This is especially important at the access points to the development along Schuurmansfontein road, where poor management of dust and mud will have a negative impact on the visual amenity of the scenic route, and the future pedestrian connection (which may come online during the construction of any one of the phases). d. Fencing/hoarding and signage must adhere to local policy relating to signage and ensure that no views from scenic routes are negatively impacted by large or numerous construction signage. e. Dust and debris control must be implemented to minimize the impacts on the local roads, residents, and neighbouring properties. Where

Description of Activity	Aspects	Potential Impact	Possible Mitigation Measures
			necessary, access routes and the site itself should have an effective dust suppression management programme applied, such as the use of non-polluting chemicals that will retain moisture in the exposed site surfaces. f. Site offices, storage and lay down areas, loading areas and similar temporary infrastructure should be situated centrally, and avoid any areas visible from the Scenic route or within 100m of the existing public roads or neighbouring properties. Appropriate fencing must be erected along the Scenic route and Schuurmansfontein road to screen the construction site from commuters on the R301. The visual screens must be maintained so that they do not become the source of the visual impact.
Nuisance Factors			
The use of construction vehicles and other construction machinery will increase the noise levels during working hours. Increased noise levels may be a nuisance factor to neighbouring land occupiers.	Increased noise levels	Potential noise impact on adjacent landowners	1. All construction equipment utilised, and activities undertaken must be compliant with the Western Cape Noise Control Regulations, P.N. 200/2013. 2. Restrict construction activities generating noise outputs of 85 dB (A) or more to the hours of 08h00 to 17h00 Mondays to Fridays. Should the Contractor need to do this work outside of these hours, the approval of the ECO must be obtained and surrounding communities must be informed prior to the work taking place. 3. No amplified music shall be allowed on Site. The use of audio equipment shall not be permitted unless the volume is kept sufficiently low so as to be unobtrusive. The Contractor shall not use sound amplification equipment on Site, unless in emergency situations.

Description of Activity	Aspects	Potential Impact	Possible Mitigation Measures
			4. If excessive noise is expected on the boundary of the site, neighbouring residents must be informed in writing and in advance of when the high noise levels will occur and for how long they will occur. 5. The Contractor must post signage indicating contact details of the Contractor and/or ECO on the site to allow for reporting of complaints.
Increased dust levels associated with movement of construction vehicles and general construction activities might be a nuisance to adjacent occupants.	Dust generation	Potential dust impact on adjacent landowners	6. Dust suppression measures such as wetting of internal gravel roads on a regular basis and ensuring that vehicles used to transport sand and building materials are fitted with tarpaulins or covers must be implemented. Potable water may not be used for dust suppression and alternative means of dust control must be implemented. 7. The development footprint must be restricted as far as possible. Only areas required for the actual buildings to be cleared. 8. Construction site cordoned off and no vegetation outside the development area may be cleared. 9. Detailed dust control measure will be provided in the EMPr that will be provided with the EIA Report.
Traffic and Transport			
The movement of large construction and related vehicles will potentially have an affect traffic flows along access routes.	Increased vehicular movement.	Impact on traffic flow in the area.	10. Provide a southbound right-turn lane at the Schuurmansfontein Road/R301 (MR201) intersection. The southbound right-turn lane should have a minimum storage lane length to accommodate a 90th percentile queue of one vehicle. 11. Provide streetlights at both development accesses and at the intersection of R301 (MR201) and Schuurmansfontein Road (DR1095). 12. Parking should be provided at the rates stipulated in the TIA (**Appendix F6**).

3.2. Potential impacts anticipated during the operational phase (post-construction).

Table 10: Potential environmental impacts and risks foreseen post-construction.

Description of Activity	Aspects	Potential Impact	Possible Mitigation Measures
Geographical, Geological and Physical Aspects			
Irrigation with treated effluent poses the risk of potentially contaminating both the shallow perched and deeper fractured rock aquifers. Contamination of the shallow perched aquifer is unlikely to occur as the treated effluent will be treated to the special limits in accordance with the DWS Standards.	Treated effluent	Potential shallow groundwater contamination Potential for groundwater contamination (deeper aquifer)	Sound irrigation practices avoiding over irrigation, proper stormwater runoff and proper monitoring practices.
Over saturation of the shallow aquifer is likely to occur should over irrigation, poor wastewater management or regular overflow of the stormwater ponds take place on site. This will result in the seepage to or flooding of the local area to the north-west of the site.	Poor wastewater management or regular overflow of the stormwater ponds	Potential for over saturation of perched shallow aquifer	
Ecological Aspects			
Aquatic Ecosystem impacts: Modification of aquatic habitat and potential for flow and water quality modification	Treated effluent Stormwater	Modification of aquatic habitat and potential for flow and water quality modification	Ongoing monitoring and removal of invasive alien plants such as kikuyu grass are likely to be required within the wetland areas. With the creation of stormwater management and wetland areas, consideration should be given to discouraging the nuisance growth of bulrushes that would require ongoing management.
Socio-Economic Aspects			
The proposed development has the potential to provide new business and employment opportunities during the operational phase of the development.	Business and employment opportunities	Potential positive impact on local employment and business	None required.

Description of Activity	Aspects	Potential Impact	Possible Mitigation Measures
Nuisance Factors			
The receptors in the mixed-use area facing the R301 would be exposed to levels of road traffic noise. The receptors in the residential component would be exposed to noise from the parking area in the mixed-use component.	Road traffic Noise nuisance from parking area in mixed-use component	Potential impact from traffic noise from the R301 and the parking area in the mixed-use component.	• Glass barriers on access corridors of residential units in mixed-use area. • Relocate parking area in mixed-use area.
Visual Aspects			
Visible interruption to continuity of settlement patterns, landscape, and agricultural patterns (windbreaks, dams, etc.). Transformation of land-use from vacant/agriculture to mixed-use and residential.	The proposed development	Potential impact on sense of place	Individual homeowners must adhere to the Development Design Guidelines and the HOA's Constitution and Rules.
The proposed development will result in – • changes to or interruption of characteristic long views over the agricultural landscape towards the encircling mountains; • the introduction of new built form, associated infrastructure and landscape features into the foreground of scenic views; and • the loss of rural/agricultural interface conditions.	Change in land-use Visibility of the proposed development	Potential impact on visual amenity of the R301 Scenic route	
The proposed development will have direct and indirect effects on local heritage and other protected resources (e.g.; the Taal Monument, Mandela house, Hawequa Nature Reserve, Wemmershoek HOZ etc).	Visibility of the proposed development	Potential impact on local heritage and other protected resources	

Description of Activity	Aspects	Potential Impact	Possible Mitigation Measures
The proposed development will have direct and indirect effects on sensitive viewers moving along the R301 Scenic route in both directions. This includes the R301 and the Schuurmansfontein Road interfaces which are visible from the scenic route over the open fynbos landscape of Farm 888.	Visibility of the proposed development	Potential impact on commuters on the R301 Scenic route	
The Construction phase of the development will result in the generation of dust (airborne, and as mud tracks on adjacent roads), the visibility of excavations and partially constructed buildings prior to finishing, the visibility of plant, machinery site offices and construction signage, the removal of large areas of existing vegetation etc.).	Visibility of the proposed development	Potential impact on local sensitive receptors	
Traffic and Transport			
The use of the development and facilities will increase traffic volumes that will result in longer delays at critical intersections however, at acceptable LOS.	Increased traffic volumes	Impact of traffic flow and volumes in the area	If the bulk release projects as well as intersection upgrades recommended in the TIA (**Appendix F6**) and this report are in place, then the impacts from this development would be sufficiently mitigated.

SECTION K: PLAN OF STUDY FOR EIA

Section (i) of Appendix 2 of the EIA Regulations, 2014 (as amended) states that the following must be included in the Plan of Study for undertaking the EIA Process:

- A description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity.
- A description of the aspects to assessed as part of the EIA process.
- Aspects to be assessed by specialists.
- A description of the proposed method of assessing the environmental aspects, including a description of the proposed method of assessing the environmental aspects including aspects to be assessed by specialists.
- A description of the proposed method of assessing duration and significance.
- An indication of the stages at which the competent authority will be consulted.
- Particulars of the PPP that will be conducted during the EIA process.
- A description of the tasks that will be undertaken as part of the EIA process.
- Identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

1. Alternatives to be Considered and Assessed

Alternative A, the preferred alternative (Alternative B), and the option of not implementing the proposed development have been considered in this Scoping Report. Alternative A, the preferred alternative (Alternative B), and the no-go option (as described in **Section G** of this report) will be assessed further in the EIA process.

2. Environmental Aspects to be Assessed

Table 9 and **Table 10** reflects all the environmental aspects and potential impacts investigated as part of this Scoping phase. These aspects and potential impacts will be investigated further in the EIA phase as well.

3. Aspects to be Assessed by Specialists

The aspects listed in **Table 11** below will be assessed further by the respective specialists as part of the EIA phase.

Table 11: Aspects to be assessed by specialists.

Description of Activity	Aspects	Specialist Assessment
Geographical, Geological and Physical Aspects		
During the construction phase, the potential for negative impacts on the shallow perched primary aquifer quality exist. These pertain predominantly to the earth moving equipment and vehicles which represent potential pollution sources. Additionally, the mixing and use of materials and concrete may impact on local macro chemical concentrations.	Accidental spillages	Groundwater Impact Assessment
Should deep/large excavations expose the groundwater, there is also potential for evaporative losses from the aquifer. Should dewatering be required, the abstraction of	Dewatering of excavations	

Description of Activity	Aspects	Specialist Assessment
groundwater will locally lower the water table.		
The site is currently partially overgrown by Alien Vegetation. Should the alien vegetation population stay at the current size or increase it will potentially have a negative impact on the shallow perched aquifer. The root systems of the alien vegetation reached deeper underground compared to the local vegetation, thus decreasing the water level in the shallow aquifer to a point where the water is no longer accessible to local fauna. Should the development proceed the alien vegetation will be removed.	Removal of Alien vegetation	
Irrigation with treated effluent poses the risk of potentially contaminating both the shallow perched and deeper fractured rock aquifers. Contamination of the shallow perched aquifer is unlikely to occur as the treated effluent will be treated to the special limits in accordance with the DWS Standards.	Treated effluent	
Over saturation of the shallow aquifer is likely to occur should over irrigation, poor wastewater management or regular overflow of the stormwater ponds take place on site. This will result in the seepage to or flooding of the local area to the north-west of the site.	Poor wastewater management or regular overflow of the stormwater ponds	
The development of agricultural land will result in the exclusion of potential future agricultural production from the site.	Rezoning of agricultural land	Site Sensitivity Verification and Agricultural Compliance Statement
Biodiversity Aspects		
The proposed development will require the clearance of vegetation.	Site clearing and earthworks	Site Sensitivity Verification and Terrestrial Biodiversity Compliance Statement
It is proposed that the existing wetland areas be replaced with the wetland corridor and stormwater ponds within the site.	Infilling of wetlands	Aquatic Biodiversity Impact Assessment
Aquatic Ecosystem impacts: Modification of aquatic habitat and	Treated effluent & Stormwater	

Description of Activity	Aspects	Specialist Assessment
potential for flow and water quality modification		
Visual Aspects		
Transformation of land-use from vacant/agriculture to mixed-use and residential – clearing of vegetation to replace with development.	Visible site clearing activities, earthworks and construction works	Visual Impact Assessment
The proposed development will result in – • changes to or interruption of characteristic long views over the agricultural landscape towards the encircling mountains; • the introduction of new built form, associated infrastructure and landscape features into the foreground of scenic views; and • the loss of rural/agricultural interface conditions.	Visible site clearing activities, earthworks and construction works	
The proposed development will have direct and indirect effects on local heritage and other protected resources (e.g.; the Taal Monument, Mandela house, Hawequa Nature Reserve, Wemmershoek HOZ, etc.).	Visible site clearing activities, earthworks and construction works	
The proposed development will have direct and indirect effects on sensitive viewers moving along the R301 Scenic route in both directions. This includes the R301 and the Schuurmansfontein Road interfaces which are visible from the scenic route over the open fynbos landscape of Farm 888.	Visible site clearing activities, earthworks and construction works	
The Construction phase of the development will result in the generation of dust (airborne, and as mud tracks on adjacent roads), the visibility of excavations and partially constructed buildings prior to finishing, the visibility of plant, machinery site offices and construction signage, the removal of large areas of existing vegetation, etc.).	Visible site clearing activities, earthworks and construction works	

Description of Activity	Aspects	Specialist Assessment
Visible interruption to continuity of settlement patterns, landscape, and agricultural patterns (windbreaks, dams, etc.). Transformation of land-use from vacant/agriculture to mixed-use and residential.	The proposed development	
The proposed development will result in – • changes to or interruption of characteristic long views over the agricultural landscape towards the encircling mountains; • the introduction of new built form, associated infrastructure and landscape features into the foreground of scenic views; and • the loss of rural/agricultural interface conditions.	Change in land-use Visibility of the proposed development	
The proposed development will have direct and indirect effects on local heritage and other protected resources (e.g.; the Taal Monument, Mandela house, Hawequa Nature Reserve, Wemmershoek HOZ etc).	Visibility of the proposed development	
The proposed development will have direct and indirect effects on sensitive viewers moving along the R301 Scenic route in both directions. This includes the R301 and the Schuurmansfontein Road interfaces which are visible from the scenic route over the open fynbos landscape of Farm 888.	Visibility of the proposed development	
The Construction phase of the development will result in the generation of dust (airborne, and as mud tracks on adjacent roads), the visibility of excavations and partially constructed buildings prior to finishing, the visibility of plant, machinery site offices and construction signage, the removal of large areas of existing vegetation etc.).	Visibility of the proposed development	

Description of Activity	Aspects	Specialist Assessment
Nuisance Factors		
The receptors in the mixed-use area facing the R301 would be exposed to levels of road traffic noise. The receptors in the residential component would be exposed to noise from the parking area in the mixed-use component.	Road traffic Noise nuisance from parking area in mixed-use component	Noise Impact Assessment
Traffic and Transport		
The use of the development and facilities will increase traffic volumes that will result in longer delays at critical intersections however, at acceptable LOS.	Increased traffic volumes	TIA (see **Appendix F6**)

Refer to **Section J** of this report for a more detailed description of the impact assessments.

4. Specialist Terms of Reference for Assessment of Environmental Aspects

Each specialist is required to consider the project in as much detail as is required to inform the respective impact assessment.

The specialist will be instructed that all the respective specialist studies must contain all information set out in Appendix 6 of the EIA Regulations, 2014 (as amended) or comply with the relevant protocol of minimum information requirements relevant to the proposed activities.

5. Method of Assessing Impact Significance

The impact assessment criteria to be used during the EIA process, is drawn from the EIA Regulations published by the Department of Environmental Affairs and Tourism (April 1998) in terms of the Environmental Conservation Act, 1989 (Act No. 73 of 1989) and the latest basic assessment report template provided by DEA&DP and the DEA&DP Guidelines for involving Biodiversity Specialists in EIA Processes, 2005.

The complete **Impact Assessment Methodology** is included under **Appendix H3** of this report.

6. Consultation with the Competent Authority

Engagement with the competent authority, DEA&DP, will be ongoing throughout the environmental process and will include the following as a minimum:

Tasks	Status	Date Completed
Submission of the Notice of Intent to Develop	Completed.	21 September 2022
Pre-Application Meeting	Completed.	06 October 2022
Submission of EA Application Form.	Completed.	01 February 2023
Provision of a copy of Scoping report firstly for comment and then decision making.		
Comment on Scoping report	Completed	06 March 2023
Submission of the final Scoping Report for decision making.	This report.	To be confirmed.
Provision of a copy of the Environmental Impact Report for comment and decision making.	To be provided.	

Tasks	Status	Date Completed
Undertaking a site inspection with the Competent Authority if deemed necessary.	To be undertaken, if required by DEA&DP.	

7. Public Participation Process to be Undertaken during the EIA process

The PPP will be undertaken as per the requirements of the EIA Regulations, 2014 (as amended).

The following is a list of tasks to be performed as part of EIA process:

Tasks
Receive approval for the Scoping Report and the Plan of Study for EIA.
Compile draft EIA Report for public comment based on specialist information.
Submit copies of the draft EIA Report to DEA&DP and relevant State Departments and Organs of State and notify them of the commenting period (in terms of Section 24O of NEMA).
Notify Registered I&APs of the opportunity to comment on the EIA Report.
Make the draft EIA Report (including EMPr and WULA) available for a 30-day commenting period.
Receive comments on the draft EIA Report.
Preparation of a final EIA Report for submission to DEA&DP including proof of the PPP, comments received and our responses to these comments.

The EIA Report for the proposed development will consider and comply with the requirements of the EIA Regulations, 2014 (as amended).

8. Tasks to be undertaken in EIA Process

The EIA process will be undertaken in line with the **Plan of Study for EIA** (**Section K**), if approved. The EIA process will be undertaken in accordance with Regulation 23 and Appendix 3 of the EIA Regulation, 2014 (as amended).

The environmental impacts, mitigation, and closure outcomes as well as the residual risks of the proposed activity will be set out in the EIA Report.

8.1. Content of the EIA Report

The EIA Report must contain the information required in terms of Section 3 of Appendix 3 of the EIA Regulations, 2014 (as amended) that is necessary for the competent authority to consider and come to a decision on the application.

9. Measures to Avoid, Reverse, Mitigate or Manage Identified Impacts

As shown in this Scoping Report, this application followed a risk adverse approach, whereby primary specialist input was utilised to ensure that the project is developed in such a way as to avoid impacts, thus reducing the need for further mitigation and management.

The EAP and participating specialists, as part of the EIA phase, will provide mitigation measures to ensure that any the potential impacts are further reduced to acceptable levels of significance. An EMPr will be developed to ensure management and monitoring of additional impacts during the construction and operational phase as well as any tasks related to rehabilitation.

SECTION L: CONCLUSION AND RECOMMENDATIONS

The purpose of this Scoping Report is:

- to provide an overview of the environment to be affected;
- to present the site constraints identified by the various specialists during their initial site assessments;
- to identify the important environmental issues to be considered in the EIA process;
- to provide a way forward (plan of study) for the EIA process; and
- to identify the information necessary for decision-making by the competent authority.

This Scoping Report will allow I&APs, authorities, specialists, and the project team to provide input on the proposed development and raise issues and concerns based on the findings of the respective specialist studies.

The EAP is of the opinion that the information contained in this Scoping Report is sufficient to allow I&APs and key stakeholders to apply their minds to the potential impacts (negative and/or positive) associated with the proposed development, in respect of the proposed development and the activities applied for.

This draft Scoping Report will be made available to all potential I&APs as identified for the proposed development. All potential I&APs, authorities and other stakeholders will be notified in writing of the opportunity to register on the project database and to submit comments.

APPENDICES

Appendix A: Locality Maps

Appendix B: Site Plans

Appendix B1: Subdivision, Rezoning and Phasing Plan
Appendix B2: Conceptual Bulk Services and Stormwater Master Plans
Appendix B3: Landscaping Plan

Appendix C: Photograph Report

Appendix D: Biodiversity Maps

Appendix D1: Biodiversity Overlay Maps
Appendix D2: Conceptual SDP & Environmental Sensitivity Overlay Map

Appendix E: Permits from Any Other Organ of the State, including Service Letters from the Municipality

Appendix E1: Heritage Western Cape Response to NID
Appendix E2: Services Capacity Confirmation Letters
Appendix E3: Proof of Submission of Water Use Authorisation Application
Appendix E4: Correspondence with DMRE
Appendix E5: Subdivision of Agricultural Land Application
Appendix E6: Comment from the Department of Agriculture

Appendix F: Specialist & Other Reports

Appendix F1: Draft Architectural Design Guidelines
Appendix F2: Landscape Guidelines
Appendix F3: Services Report & Stormwater Management Plan
Appendix F4: Electrical Services Report
Appendix F5: Town Planning Report
Appendix F6: Traffic Impact Assessment

Appendix G: Public Participation Information

Appendix G1: PPP Register
Appendix G2: Proof of Newspaper Notices
Appendix G3: Proof of Site Notices
Appendix G4: Proof of Written Notifications Sent
Appendix G5: Comments Received
Appendix G6: Comments and Response Report

Appendix H: Other Information

Appendix H1: Screening Reports
Appendix H2: Site Sensitivity Verification Report
Appendix H3: Impact Assessment Methodology
Appendix H4: Impact Assessment Tables
Appendix H5: Curriculum Vitae of the EAP

Appendix I: Declarations

Appendix I1: Declaration of the Applicant
Appendix I2: Declaration of the EAP