

DRAFT ENVIRONMENTAL IMPACT REPORT

FOR

SECTION 24G APPLICATION TO RECTIFY THE UNLAWFUL COMMENCEMENT OR CONTINUATION OF LISTED ACTIVITIES IN TERMS OF SECTION 24G OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NO. 107 OF 1998)

LOCATED ON HOLDINGS 105 AND 106 OF BLUE HILLS AGRICULTURAL HOLDINGS UNDER THE JURISDICTION OF THE CITY OF JOHANNESBURG METROPOLITAN MUNICIPALITY

GDEnv Reference No: S24G/03/24-25/0703

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EXECUTIVE SUMMARY

I. Project Description and Location

Selahle Consultancy and Projects (Pty) Ltd (SCP) as an independent Environmental Assessment Practitioner (EAP) was appointed by Omeida Trading CC, to undertake the Section 24G Rectification process due to the unlawful commencement of Listed Activity 19 of Listing Notice 1 and Listed Activity 12 of Listing Notice 3 for the Construction and Operation activities of the Acacia Villa Estate located on Holding 105 of Blue Hills Agricultural Holdings under the jurisdiction of City of Johannesburg Metropolitan Municipality, Gauteng Province.

The Acacia Villa Estate was originally granted Environmental Authorisation (Gaut 002/18-19/E0036) on 30 August 2018 for a medium-density residential development. However, the Environmental Authorisation contained specific conditions prohibiting development within the 30-metre wetland buffer, except for the widening of existing roads and installation of a municipal water pipeline and required all applicable water use authorisations to be obtained prior to undertaking activities within the wetland.

Construction activities nevertheless commenced in July 2022 before obtaining the required Water Use Licence, and several other unauthorised activities were undertaken within environmentally sensitive areas. These activities included the following:

- The construction of a Boundary Wall in a wetland.
- The installation of manholes within the wetland buffer.
- The construction of an Attenuation Dam within a watercourse.
- The installation of stormwater pipeline and discharge outlets in a wetland.
- The drilling of boreholes within the wetland buffer.
- The construction of a culvert within the buffer area, and
- Development of a Parking Area within Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs).

The study area can be accessed via Acacia and Mimosa Roads, Midrand, City of Johannesburg Metropolitan Municipality. The coordinates to the site where the unlawful activities were undertaken are indicated on the table below: (refer to the locality map below)

Unlawful Activities	Coordinates
The construction of a boundary wall within the wetland.	Start Point: 25°57'33.39"S 28° 5'25.90"E Middle Point: 25°57'34.72"S 28° 5'22.41"E End Point: 25°57'34.04"S 28° 5'19.88"E
The installation of manholes within the wetland buffer.	Manhole 1: 25°57'32.93"S 28° 5'25.62"E Manhole 2: 25°57'33.18"S 28° 5'25.74"E Manhole 3: 25°57'33.66"S 28° 5'25.62"E Manhole 4: 25°57'33.35"S 28° 5'24.47"E Manhole 5: 25°57'33.12"S 28° 5'23.65"E
The construction of an attenuation dam within a watercourse.	25°57'33.23"S 28° 5'20.33"E

Unlawful Activities	Coordinates
The installation of a stormwater pipeline and discharge outlets within the wetland.	25°57'33.78"S 28° 5'20.20"E
The drilling of boreholes within the wetland buffer.	25°57'34.21"S 28° 5'23.08"E
The construction of a culvert within the buffer area,	25°57'34.96"S 28° 5'25.09"E
and development of a parking area within Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs).	25°57'27.82"S 28°5'29.69"E



Figure 1: Locality Map for showing the Illegal Activities

II. The Unlawful Triggered Activities

The activities that commenced without obtaining the Environmental Authorisation in terms of the EIA Regulations, 2014, as amended, promulgated under the National Environmental Management Act (Act No. 107 of 1998) are listed below:

- Listing Notice 1: Activity 19
- Listing Notice 3: Activity 12

III. Other Authorisations Required

- **The Water Use License**

The unlawful activities that occurred within the wetland and its buffer required an authorisation under the National Water Act, 1998 (Act No. 36 of 1998) before commencement. The illegal activities triggers Section 21(a), 21(c) and 21(i), relating to the abstraction of Water, impeding or diverting of water flow and altering watercourse characteristics. The Water Use License Application is currently underway.

IV. Public Participation

Preliminary Public Participation was undertaken in accordance with Section 24G (1) (aa)(G) of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, by publishing a notice of the Section 24G rectification application in the Midrand Reporter newspaper. The notice was published for a period of 20 days, from 15 October 2024 to 4 November 2024, to notify Interested and Affected Parties (I&APs) and provide them with an opportunity to register and submit comments.

The Public Participation for the Environmental Impact Report (EIR) Phase will be undertaken between 2 July 2026 until 31 July 2026 as prescribed in the directive issued on 23 March 2026. The public participation activities will include:

- Placement of a newspaper advert in the Midrand Reporter Newspaper
- The erection of A2 (594 x 420mm) site notices around the study area
- Circulation of the Draft EIR to registered Interested and Affected Parties, Organs of State and Landowners.

The CRR will be updated continuously and will be presented to the authorities and other I&APs together with the consultation and final reports as a full record of issues raised, including responses on how the issues were considered during the application process.

V. Specialist Studies

- **Hydropedological Study**

A Hydropedological Study was undertaken by Ariys Consulting in February 2025 to evaluate the interaction between soil properties, surface water movement and groundwater processes within the

development area. The assessment confirmed that the site has undergone historical disturbance associated with previous land use activities and surrounding urban development; however, it continues to perform important hydrological functions related to infiltration, stormwater attenuation and groundwater recharge. The study identified the need to maintain natural drainage patterns and minimise disruption to soil-water relationships through appropriate planning and design interventions.

The assessment concluded that the development is suitable from a hydrogeological perspective and that no fatal constraints were identified. Potential impacts associated with increased stormwater runoff, soil disturbance and altered hydrological functioning can be effectively managed through the implementation of appropriate stormwater management infrastructure, erosion control measures and rehabilitation interventions. With the recommended mitigation measures in place, residual impacts are expected to be low and environmentally acceptable.

- **Floodline Assessment Study**

A Floodline Assessment was undertaken by Ariys Consulting in to evaluate the potential flood risks associated with the Acacia Villas development. The assessment identified flood-sensitive areas associated with existing drainage features and established floodline boundaries that must be incorporated into the development planning process. The study confirmed that portions of the site may be affected by flood events during periods of intense rainfall; however, sufficient developable area exists outside these flood-prone zones to accommodate the development.

The assessment concluded that the development is acceptable from a flood risk perspective, provided that all infrastructure is located outside delineated floodline areas and that appropriate stormwater management measures are implemented. Compliance with the recommended floodline restrictions, engineering controls and maintenance requirements will ensure that flood-related impacts remain low and that downstream flood risks are not exacerbated by the development.

- **Geohydrological Assessment Study**

A Geohydrological Assessment was undertaken to evaluate the potential impacts of the development on groundwater and surface water resources within the project area. The assessment found that the site is underlain by a minor aquifer with a shallow groundwater table, making the groundwater resource susceptible to contamination, particularly during construction activities and heavy rainfall events. Groundwater quality analysis indicated that most water quality parameters complied with the applicable SANS 241:2015 drinking water standards; however, elevated concentrations of turbidity, E. coli, total coliforms, iron and manganese were recorded, indicating that groundwater from the onsite boreholes is not suitable for direct human consumption without appropriate treatment.

The assessment further confirmed that the two existing production boreholes are capable of supplying the anticipated water demand of the development, with a combined sustainable abstraction rate exceeding the estimated daily demand of the development. The overall groundwater risk was assessed as low to medium, provided that appropriate management measures are implemented. Potential impacts identified by the specialist include alteration of natural hydrological processes due to vegetation clearing, increased surface runoff, contamination of groundwater from hydrocarbon spills and construction materials, deterioration of surface water quality from construction-related

activities, and potential impacts associated with groundwater abstraction and domestic wastewater infiltration during the operational phase.

To minimise these impacts, the specialist recommends limiting vegetation clearing to the minimum area required, implementing appropriate stormwater drainage and erosion control measures, preventing hydrocarbon and hazardous material spillages, monitoring groundwater levels and quality through dedicated monitoring boreholes, implementing a surface water quality monitoring programme, rehabilitating disturbed areas, and managing groundwater abstraction in accordance with the recommended sustainable pumping rates. Regular inspection and maintenance of wastewater infrastructure are also recommended to prevent groundwater contamination, while groundwater intended for potable use should be treated prior to consumption. Subject to the implementation of these mitigation measures and compliance with the Environmental Management Programme (EMPr), the specialist concluded that the development is acceptable from a geohydrological perspective and that the residual impacts on groundwater resources are expected to remain low and manageable.

▪ **Aquatic Assessment Study**

An Aquatic Ecological Assessment was undertaken to evaluate the potential impacts of the development on the freshwater resources within and adjacent to the project area. The assessment focused on an unnamed stream associated with a channelled valley-bottom wetland and evaluated the ecological condition of the freshwater ecosystem through habitat integrity assessments, water quality analyses, and aquatic macroinvertebrate surveys.

The study found that the unnamed stream is currently in a D/E (Largely to Seriously Modified) Present Ecological State (PES), primarily as a result of historical anthropogenic disturbances, including urban development, altered hydrology, upstream infrastructure, and poor water quality associated with sewage contamination. Water quality analyses indicated elevated concentrations of several pollutants, including cyanide, faecal coliforms, orthophosphates, chemical oxygen demand (COD), ammonia, copper, and oil and grease, which have contributed to reduced aquatic habitat quality and low macroinvertebrate diversity. The stream was assigned a Low Ecological Importance and Sensitivity (EIS) and a Recommended Ecological Category (REC) of C/D, indicating that management measures should aim to improve the ecological condition of the watercourse.

The specialist identified potential impacts associated with the development, including disturbance of the freshwater habitat, alteration of natural hydrological processes, erosion and sedimentation, deterioration of water quality through contaminated runoff, loss of riparian vegetation, and disturbance of aquatic biota during the construction phase. Operational phase impacts are primarily associated with stormwater runoff and the potential for continued degradation of water quality if stormwater infrastructure is not adequately maintained.

The application of the Department of Water and Sanitation (DWS) Risk Assessment Matrix, the overall risk associated with the remaining construction and operational activities was assessed as Low, provided that the recommended mitigation measures are effectively implemented. These measures include the implementation of robust stormwater management systems, erosion and sediment control measures, pollution prevention, rehabilitation of disturbed areas, protection of riparian vegetation, routine maintenance of stormwater infrastructure, and ongoing environmental

monitoring. Based on the findings of the assessment, the aquatic specialist concluded that the development is environmentally acceptable, subject to the implementation of the recommended mitigation measures and compliance with the Environmental Management Programme (EMPr)

VI. List of Impact Identified Impacts

The table below is a summary of the potential impacts identified during the undertaking of the Section 24G and the environmental impact report. However, these impacts after mitigation are rated low, ensuring that the project will not have detrimental effects on the environment. The rehabilitation plan that was submitted and approved by GDEnv, signifies the local extent of the impact and justifies the low rating post mitigation.

Table 1: List of Identified impacts before and post mitigation

IMPACT	SIGNIFICANCE (before mitigation)	SIGNIFICANCE (after mitigation)
POST CONSTRUCTION PHASE		
Non-compliance with Environmental Authorisation conditions, S24G authorisation conditions, NEMA requirements and future Water Use Licence conditions.	Very High	Medium
Historical disturbance and loss of wetland habitat due to the unlawful construction of the boundary wall, stormwater pipeline, culvert and associated infrastructure within the wetland and wetland buffer	Very High	Medium
OPERATIONAL PHASE		
Alteration of wetland hydrology and natural surface water flow patterns resulting from the stormwater pipeline, culvert, the boundary Wall and the discharge outlets installed within the wetland system	Very High	Medium
Surface water pollution associated with stormwater runoff from roads, parking areas and residential infrastructure.	Medium	Low
Groundwater contamination from domestic wastewater and accidental pollution incidents.	High	Low
Increased stormwater runoff resulting from impermeable surfaces associated with roads, parking areas, rooftops and paved areas	High	Low
Alien invasive species infestation within wetland areas, open spaces and rehabilitation zones.	High	Low
Waste generation and improper waste disposal associated with residential occupation and estate maintenance activities.	Medium	Low
Potential disturbance to fauna associated with human activity, domestic pets and increased noise levels.	Medium	Low
Employment opportunities and local economic stimulation associated with estate operation and maintenance.	Positive High	Positive High

IMPACT	SIGNIFICANCE (before mitigation)	SIGNIFICANCE (after mitigation)
Continued ecological degradation resulting from the presence of unauthorised infrastructure within the wetland and wetland buffer.	Medium	Low
REHABILITATION PHASE		
Failure of wetland rehabilitation and ecological restoration measures to restore the ecological functioning of areas disturbed by the unlawful activities.	Medium	Low
Failure of indigenous vegetation establishment within rehabilitated wetland, buffer and open space areas.	Medium	Low
Re-establishment and spread of alien invasive plant species within rehabilitated areas.	High	Low
Long-term degradation of rehabilitated wetland and buffer areas due to future encroachment and disturbance	High	Low

TERMS OF REFERENCE

Section 24G of the National Environmental Management Act (NEMA) provides a legal framework for rectifying unauthorized activities that have commenced without the necessary environmental authorisations. This section allows individuals or entities that have undertaken listed activities without an environmental authorisation to apply for retroactive authorisation.

The application process of the S24G involves a formal, payment of fines, and compliance with conditions set out by the competent authority to mitigate environmental impacts.

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ACRONYMS & ABBREVIATIONS

CA	Competent Authority
CBA	Critical Biodiversity Area
CRR	Comment & Response Report
DWS	Department of Water and Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
ECA	Environment Conservation Act, 1989 No. 73 of 1989)
EMPr	Environmental Management Programme
ESA	Ecological Support Area
GDEnv	Gauteng Department of Environment
GNR	Government Notice Regulation
HIA	Heritage Impact Assessment
I&AP	Interested and Affected Party
IAP	Invasive Alien Plants
IDP	Integrated Development Plan
IEM	Integrated Environmental Management
NDP	National Development Plan
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEM: BA	National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
NFEPA	National Freshwater Ecosystem Priority Area
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
NWA	National Water Act, 1998 (Act No. 36 of 1998)
PES	Present Ecological State
PPP	Public Participation Process
SAHRA	South African Heritage Resources Agency
SANBI	South African National Biodiversity Institute
SANS	South African National Standards
SCP	Selahle Consultancy & Projects
SDF	Spatial Development Framework
SEA	Strategic Environmental Assessment
WULA	Water Use License Application

Glossary of Terms

Alien Species: A plant or animal species introduced from elsewhere: neither endemic nor indigenous.

Applicant: Any person who applies for an authorisation to undertake an activity or to cause such activity to be undertaken as contemplated in the National Environmental Management Act (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2014 (as amended).

Biodiversity: The variability among living organisms from all sources including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part.

Environment: All physical, chemical and biological factors and conditions that influence an object and/or organism. Also defined as the surroundings within which humans exist and are made up of the land, water, atmosphere, plant and animal life (micro and macro), interrelationship between the factors and the physical or chemical conditions that influence human health and well-being.

Environmental Impact Assessment: Assessment of the effects of a development on the environment.

Environmental Management Programme: A legally binding working document, which stipulates environmental and socio-economic mitigation measures that must be implemented by several responsible parties throughout the proposed project.

Open Space: Areas free of buildings that provide ecological, socio-economic and place-making functions at all scales of the metropolitan area.

Study Area/Site: Refers to the entire study area encompassing the total area of the land parcels as indicated on the study area map.

Development Footprint/ Area to be transformed: In the context of the S24G application such areas are the specific area/s where unauthorised activities triggered a listed activity.

1 INTRODUCTION

Omeida Trading CC was granted an Environmental Authorisation (EA) with the Reference No: **Gaut002/18-19/E0036** for the Medium-Density Development on **30 August 2018**. Due to the presence of a wetland in the southern part of the study area the Environmental Authorisation included specific conditions, amongst others, stating that:

- **Condition 3.2:** *“No other development must occur within the 30-meter wetland buffer except for the extension and widening of the existing roads and the installation of a new 160 mm council water pipe”.*
- **Condition 3.4:** *“Furthermore all water use authorisations must be obtained from Department of Water and Sanitation regarding the activities that will take place within the Wetland”.*

Despite these conditions, construction activities commenced in July 2022 prior to obtaining the required Water Use Licence from the Department of Water and Sanitation (DWS), which resulted in the developer contravening and deviating from the Environmental Authorisation conditions. Over and above activities specified in the EA, other activities were undertaken that were not authorised under the existing Environmental Authorisation and were therefore conducted unlawfully. These activities include:

- Construction of a Boundary wall inside the wetland.
- The placement of five manholes within its buffer zone.
- The construction of an attenuation dam within a watercourse
- A storm-water pipeline, together with its discharge outlets, was also installed directly within the wetland.
- Boreholes were drilled within the wetland’s buffer zone.
- Construction of a 1-meter culvert was positioned along the wetland’s buffer area.
- Construction of a Car Parking area within Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs).

As such, Selahle Consultancy and Projects Pty Ltd (SCP) has been appointed by Omeida 426 CC (applicant) to compile an Environmental Impact Report as stipulated in the Directive received from the Gauteng Department of Environment (herein referred to as GDEnv) on the 23rd March 2026.

SCP submitted a Section 24G Application in terms of the National Environmental Management Act, 1998 (Act No.107 of 1998) (NEMA) to GDEnv on 04 February 2025, for the unlawful commencement of the listed activities under EIA Regulations, 2014 (as amended). The authorised activities and the unlawful activities commenced in July 2022 when Omeida 426 CC commenced with the construction activities of the Acacia Villa Estate located on Holding 105 and 106 of Blue Hills Agricultural Holdings under the jurisdiction of the City of Johannesburg Metropolitan Municipality, Gauteng Province (referred to as the Subject Property). GDEnv sent an acknowledgement of receipt on 20 February 2025 and assigned the project with the reference number **S24G/03/24-25/0703**. **GDEnv subsequently conducted a site inspection of the unlawful activities on 27 June 2025.**

The undertaking of these activities without the necessary environmental and water use authorisations constituted to the contravention with the conditions of the Environmental Authorisation in terms National Environmental Management Act, 1998 (Act No. 107 of 1998), EIA Regulations, 2014(as amended) and the National Water Act, 1998 (Act No. 36 of 1998).

The objective of the Environmental Impact Report (EIR) is to meet the conditions and requirements as stated in the Directive, for submission to the Gauteng Department of Environment. The report further aims to assess the environmental impacts that were caused by the unauthorised activities which were unlawfully undertaken on-site and to try and remediate each impact as identified throughout all the development phases.

1.1 Details of the Environmental Assessment Practitioner (EAP)

Table 2: Details of EAP

Name of the Environmental Assessment Practitioner	Shonisani Selahle
Tel No:	011 026 2560 / 079 569 5277
Fax No:	086 685 9567
Email:	shonie@scprojects.co.za / admin@scprojects.co.za

1.2 Expertise of the EAP

EAPASA Registered EAP: 2020/2646

SACNASP Registered Scientist: 134271

SACPCMP Registered Safety Manager: CHSM/2372/2025

Qualifications

University of South Africa, BSc Honours, Environmental Management- 2025

Tshwane University of Technology, N. Diploma Geology – 2010

NOSA, Implementation of ISO 45001:2018 & ISO 14001:2015

Summary of the EAP's experience

Shonisani Selahle is an Environmental Consultant with more than 14 years of experience in applying the principles of Integrated Environmental Management and in applying the Environmental Legislation to several development projects and initiatives in Southern Africa. She has coordinated and managed several diverse projects and programs related to the Environment and Waste within both the public and private sectors for national and international companies. She has a great understanding of relevant legislation about environment management (NEMA, ECA, NWA, MPRDA, etc).

Curriculum Vitae Shonisani Selahle

- Ability to carry out international environmental legislation research to interpret and incorporate it in proposals/EIAs/BAs
- Understanding and implementation of World Bank Guidelines and Equator Principles into EIA reports
- Technicalities of EIA Guidelines (Pre-consultation; Exemption of Environmental Authorisation, Environmental Screening Studies, Feasibility Studies, Fatal Flaw Studies, Basic Assessment, EIA, Scoping, EIA Public Participation and Appeals)
- Ability to undertake Environmental Authorisation Amendments (Minor and Substantive) Application

- Ability to carry out Occupational Health and Safety Compliance Monitoring and Audits in terms of the Occupational Health and Safety Act and Construction Regulations
- Ability to do EIA Reports independently and incorporate specialist input into reports.
- Ability to compile Environmental Management Plans
- Ability to coordinate Public Participation from call to register to compile issues and response Reports.
- Ability to undertake EIA's/BAs for Renewable energy projects.
- Ability to carry out Environmental Control Officer (ECO) duties (site inspection and site/client auditing) and work independently.
- Ability to liaise with clients and authorities.
- Ability to undertake site rehabilitation using Bioremediation methods for contaminated sites,
- Ability to carry out Occupational Health and Safety Audits,
- Ability to apply Construction Health and Safety Permits with swift responses from the Department of Employment and Labour
- Ability to implement ISO 45001:2018 and ISO 18001:2015 standards per project description for companies.

2 PROJECT LOCALITY AND DESCRIPTION

2.1 Project Location

The project site is located in Ward 112 within the City of Johannesburg Metropolitan Municipality in Midrand Township. The study area covers an extent of 5.73 hectares and can be accessed via Acacia and Mimosa Roads, the coordinates to the site are: **25°57'29.68"S 28° 5'24.17"E** (refer to the locality map below).



Figure 2: Acacia Villa Estate Locality Map

2.2 Listed and Specific Activities

Table 3: Listed and Specific Activities

Triggered Activity	Description of the Activity	Unlawful/ illegal Activity
Government Notice No. 327 of 2017(as amended)		
Listing Notice 1 Activity 19	The infilling or depositing of any material of more than 10 cubic meters into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles, or rock of more than 10 cubic meters from – i. A watercourse	- Construction of a Boundary wall inside the wetland. - Installation of a storm-water pipeline, together with its discharge outlets, was also installed directly within the wetland. .
Government Notice No. 324 of 2017(as amended)		
Listing Notice 3 Activity 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. C. Gauteng (ii) Within Critical Biodiversity Areas or Ecological Support Areas identified in the Gauteng Conservation Plan or bioregional plans; or	- Clearance of approximately 2151 square metre of vegetation for construction of a Parking area within Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs).

2.3 Other Authorisations Required

2.3.1 Water Use License Application

The EA granted to Omeida Trading CC by the GDEnv (formerly the Gauteng Department of Agriculture and Rural Development) included specific conditions relating to activities within and adjacent to the wetland located on the property. The EA stipulated that any activities occurring within the wetland or its 30-metre buffer zone would require the applicant to obtain the necessary Water Use Authorisation from the Department of Water and Sanitation (DWS) prior to the commencement of such activities.

The activities that were authorised within the wetland and its buffer zone in the granted Environmental Authorisation were limited to the following:

- The extension and widening of the existing roads.
- The installation of a new 160 mm council water pipe.

As construction activities progressed, the applicant undertook several additional activities that were not authorised in the granted Environmental Authorisation. Furthermore, these activities were undertaken within the wetland and its associated buffer zone without the required Water Use Authorisation having first been obtained from the Department of Water and Sanitation. As a result, these activities constitute unlawful commencement of listed activities and have triggered the need for a rectification process in terms of Section 24G of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

The unauthorised activities undertaken on the site include the following:

- Construction of a Boundary wall inside the wetland.
- The placement of five manholes within its buffer zone.
- The construction of an attenuation dam within a watercourse
- A storm-water pipeline, together with its discharge outlets, was also installed directly within the wetland.
- Boreholes were drilled within the wetland's buffer zone.
- Construction of a 1-meter culvert was positioned along the wetland's buffer area.
- Construction of a Parking area within Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs).

A Water Use Licence Application (WULA) is currently underway in terms of the National Water Act, 1998 (Act No. 36 of 1998). The existing activities trigger the following water uses:

- Section 21(c): Impeding or diverting the flow of water in a watercourse; and
- Section 21(i): Altering the bed, banks, course, or characteristics of a watercourse

These water uses are associated with activities undertaken within the wetland and its associated buffer zone.

3 EVIDENCE OF LAND USE COVER

3.1 Google Earth Imagery



Figure 3: Google Earth image of the site in March 2022 prior to development



Figure 4: Google Earth image of the site in October 2022 during the commencement of construction activities



Figure 5: Google Earth image of the site in May 2023 – as construction progresses

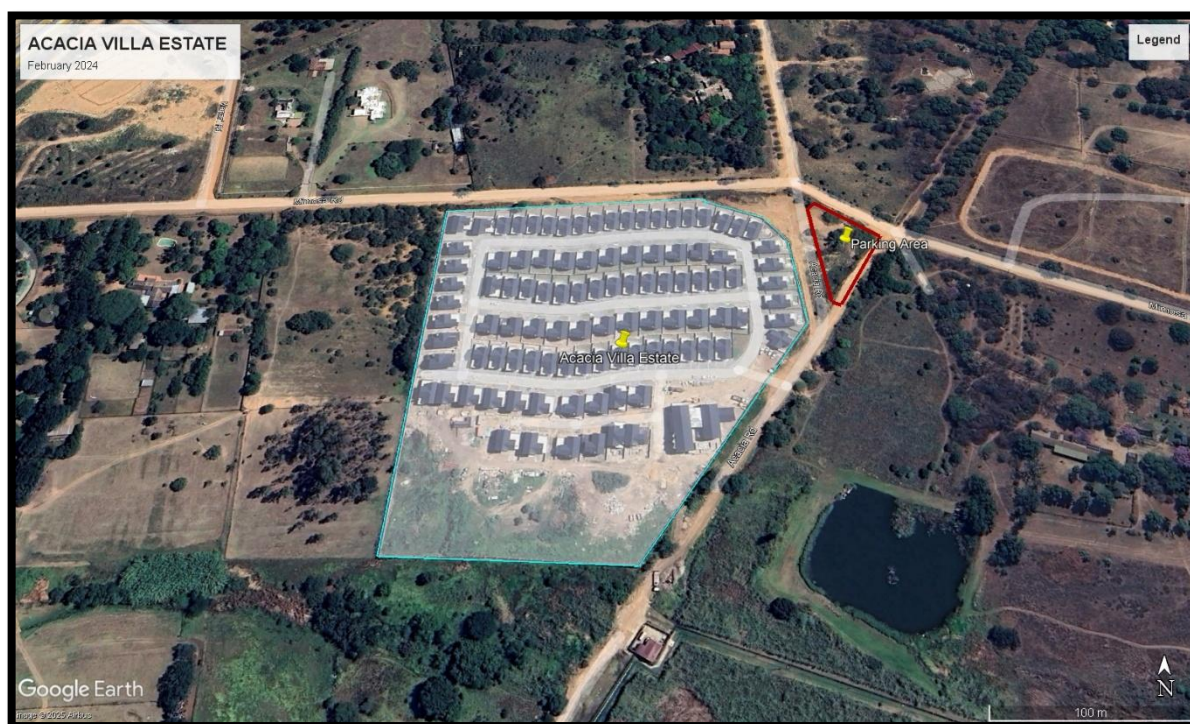


Figure 6: Google Earth image of the site in February 2024 – during the completion of construction activities



Figure 7: Google Earth image of the site in May 2025 – during the operation of the Estate

4 ALIGNMENT WITH APPLICABLE LEGISLATION AND POLICIES

Table 4: Policy and Legislation

Title of legislation, policy, or guideline:	Administering authority:	Promulgation Date:
National Environmental Management Act, 1998 (Act No. 107 of 1998 as amended).	National & Provincial	1998
Environmental Impact Assessment Regulations, 2014, as amended.	National & Provincial	2014
National Heritage Resources Act 25 of 1999	SAHRA	2000
National Water Act (Act No: 36 of 1998)	DWA	1998
City of Johannesburg Metropolitan Municipality Spatial Development Framework (SDF)	Municipality	2040
Integrated Development Plan (IDP)	Municipality	2025/26
City of Johannesburg Metropolitan Municipality Open Space Policy	Municipality	2004
National Environmental Management: Waste Act: 2008 (Act No. 59 of 2008)	National & Provincial	2008
Occupational Health and Safety Act (Act No: 58 of 1993)	National & Provincial	2014

Title of legislation, policy, or guideline:	Administering authority:	Promulgation Date:
National Environmental Management Act: Air Quality, 2004	National & Provincial	2004
National Environmental Management Act: Biodiversity Act (Act No: 10 of 2004)	National and Provincial	2004
National Appeal Regulations, 2014 and Amendments	National and Provincial	2014
DEA Guidelines on Public Participation	National (DFFE)	2012
DEA Guidelines on Need and Desirability	National (DFFE)	2004
DEA Guidelines on Alternatives	National (DFFE)	2004
Gauteng Conservation Plan Version 4	Provincial	2012
Water Use Licence Applications & Appeal Regulations, 2017	National & Provincial	2017
Gauteng Provincial Environmental Management Framework	Gauteng Provincial	2021

4.1 Description of compliance with the relevant legislation, policy, or guideline

Table 5: Description of compliance with the relevant legislation, policy, or guideline

Legislation, policy of guideline	Description of compliance
National Environmental Management Act No.107 of 1998 as amended.	Environmental Authorisation was not obtained prior to the commencement of the construction and installation of a boundary wall, the placement of five manholes, an attenuation dam, a stormwater pipeline and associated discharge outlets, the drilling of boreholes within the wetland buffer zone, the construction of a 1-metre culvert, and the development of a parking area. These activities were undertaken within a Wetland, Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs), and within 32 metres of a watercourse and therefore a Section 24G rectification process is undertaken to obtain Environmental Authorisation for the listed activities in accordance with NEMA.

	The unlawful activity triggers Activity 19 of Listing Notice 1 and Activity 12 of Listing Notice 3 of the Environmental Impact Assessment Regulations, 2014 (as amended), published under the National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998, as amended). <i>Activity 19 of Listing Notice 1</i> <i>The infilling or depositing of any material of more than 10 cubic meters into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles, or rock of more than 10 cubic meters from (i) a Watercourse</i> <i>Listing Notice 3, Activity 12 states:</i> <i>“The clearance of an area of 300 square metres or more of indigenous vegetation expect where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.”</i> <i>c. Gauteng</i> <i>(ii) Within Critical Biodiversity Area or Ecological Support Area identified in the Gauteng conservation plan or bioregional plans.</i> The information provided in this report is to assess the development within the guidelines provided by the NEMA Act and enable the competent authority to make a sound decision regarding the development.
Municipal Systems Act, 2000 (Act 32 of 2000)	By-Laws, Policies and Legislation were adhered with as the Site Layout plan of the township establishment was approved on 26 April 2024.
National Heritage Resources Act, 1999 (25 of 1999)	The SAHRA is the relevant competent authority for the protection of archaeological and paleontological resources. The heritage study was conducted, and the site did not reveal any sites of archaeological significance.
National Water Act (Act No: 36 of 1998)	This act aims to manage activities related to water resources including watercourses and associated riparian habitats. The act defines offences such as pollution of water resources and list activities to be addressed during the authorisation phase. The Southern part of the study area has a Channelled

	Valley Bottom Wetland, and Boreholes were drilled within the buffer of the wetland therefore, a water use license application is currently underway.
National Environmental Management Act: Biodiversity Act (Act No: 10 of 2004)	Although it is not anticipated, rare or protected species may be affected during construction works. The NEMBA lists flora and fauna species that are threatened and require protection to ensure their survival in the wild, while regulating activities which may have a potential negative impact on their long-term survival.
Gauteng Provincial Environmental Management Framework	The site falls within Zone 1 of the GPEMF, where Zone 1 is to streamline urban development activities in it and to promote development infill, densification and concentration of urban development within the urban development zones as defined in the Gauteng Spatial Development Framework (GSDF). The unlawful activity that was undertaken without an EA from the department is in line with the GPEMF requirements.
DEA Guidelines on Public Participation	Public participation was undertaken in accordance with the EIA Regulations 2014, as amended prior to the submission of this report to the competent authority.
DEA Guidelines on Need and Desirability	The need and desirability of this activity is discussed in this Impact assessment report.
DEA Guidelines on Alternatives	According to the regulations and this guideline, it is mandatory to investigate different alternatives and the no-go option as part of the assessment. The alternative investigated for this project was technology.

5 ALTERNATIVES IDENTIFIED

5.1 Location alternatives

The unlawful activities have already been undertaken in the study area; therefore, the current location is regarded as the preferred and only feasible location alternative, as the infrastructure has already been constructed and forms an integral part of the existing residential development.

5.2 Land Use Alternatives

The authorised land use of the property is residential development, together with the associated municipal engineering services and supporting infrastructure required for the functioning of the

development. The infrastructure that forms part of this Section 24G application was constructed to support the approved residential development and associated service requirements.

5.3 No-go Alternative

The No-Go Alternative it would mean that no further authorisation will be granted or rectification for the already undertaken activities. In this case, the site would remain in its current disturbed and developed state without the implementation of mitigation measures and rehabilitation of the affected area.

6 DESCRIPTION OF THE ENVIRONMENT

6.1 Regional Setting

Blue Hills Agricultural Holdings was historically developed as a rural smallholding area intended for agricultural and low-density rural residential activities. Over time, the area has experienced substantial urbanisation driven by the strategic location of Midrand between Johannesburg and Pretoria. Consequently, many of the original agricultural holdings have been transformed into residential estates, commercial developments, educational facilities, and supporting infrastructure. Despite this transformation, the area retains elements of its agricultural character, with several remaining smallholdings, equestrian properties, open spaces, wetlands, and watercourses. The study area is therefore situated within a transitional landscape where historical agricultural land uses coexist with ongoing urban development pressures.

The property is located on Holding 106 of the Blue Hills Agricultural Holdings within Ward 112 in Blue Hills and is accessible via Acacia Road and Mimosa Road. The development footprint occupies approximately 5.73 hectares and is located within an area characterised by rapid urban expansion, residential developments and supporting infrastructure. The surrounding landscape comprises a mixture of residential estates, roads and transformed open spaces.

Historically, the site formed part of the Blue Hills Agricultural Holdings; however, urbanisation within the Midrand region has transformed much of the surrounding landscape into residential and mixed-use developments. As a result, the site is situated within a predominantly urbanising environment where natural habitats have become increasingly fragmented due to historical and ongoing development activities.

6.2 Topography

The study area is situated within a gently undulating slope characterised by elevations ranging between approximately 1,498 m and 1,505 m above mean sea level. The site generally slopes towards the southern portion of the property, where a Channelled Valley Bottom Wetland is located. The Surface water runoff generated drains towards the wetland and the drainage system located along the southern portion of the property.

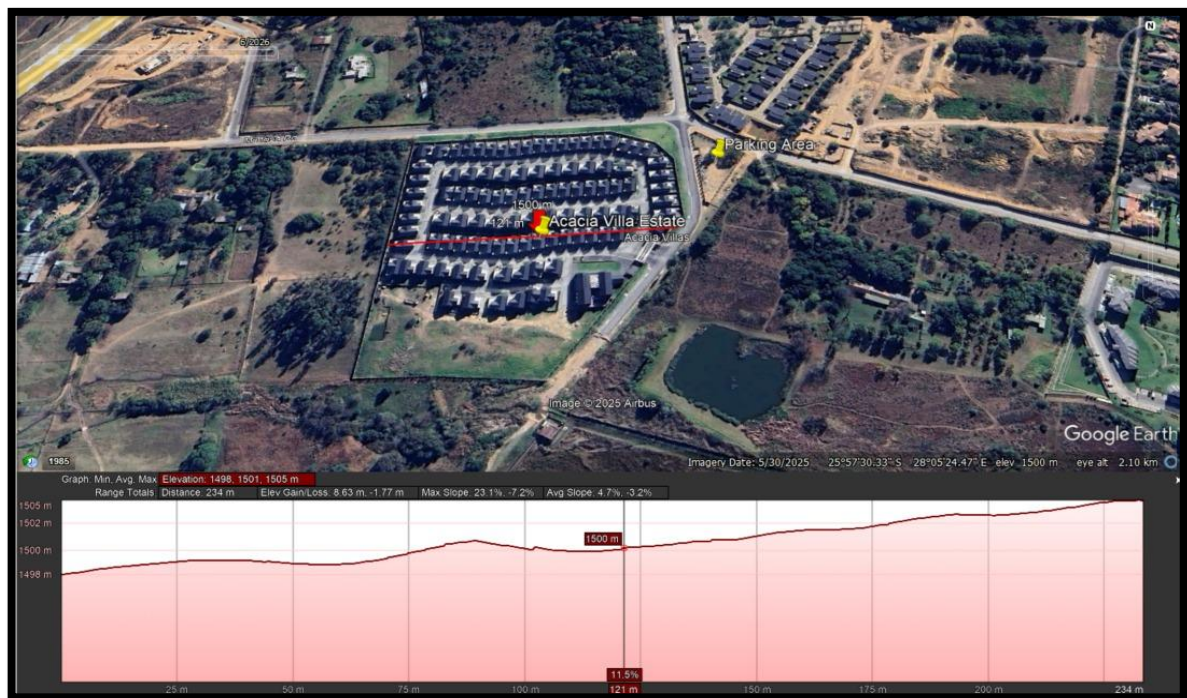


Figure 8: Topography Map from left to right

The topography map below it shows the gradient of the study area moving from top to bottom, which it shows that it is associated with a gently undulating slope characterised by elevations ranging between approximately 4980 m and 4986 m above mean sea level.

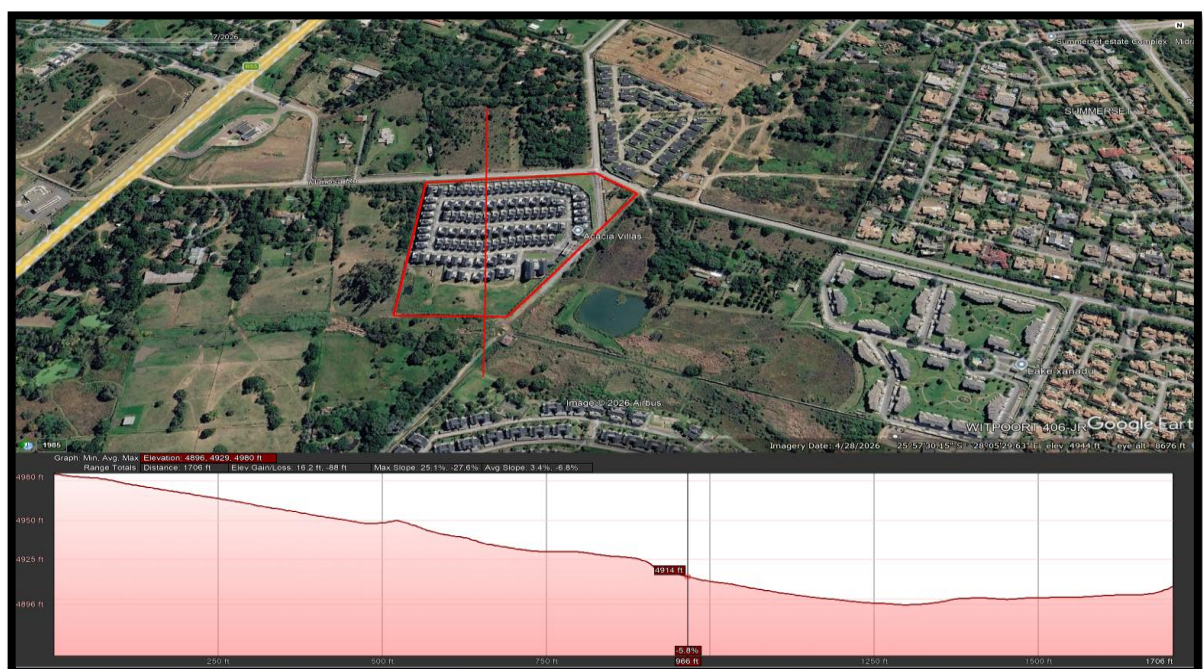


Figure 9: Topography Map from Top to Bottom

6.3 Climate

The climate of Midrand is characterised by warm, wet summers and cool, dry winters. The warm season extends for approximately six months, from late September to late

March, during which the average daily maximum temperature exceeds 24°C. January is typically the hottest month of the year, with average temperatures ranging from a low of approximately 16°C to a high of 26°C.

The cool season occurs between late May and early August, lasting approximately 2.2 months. During this period, average daily maximum temperatures remain below 19°C. July is generally the coldest month of the year, with average temperatures ranging from a low of approximately 4°C to a high of 18°C.

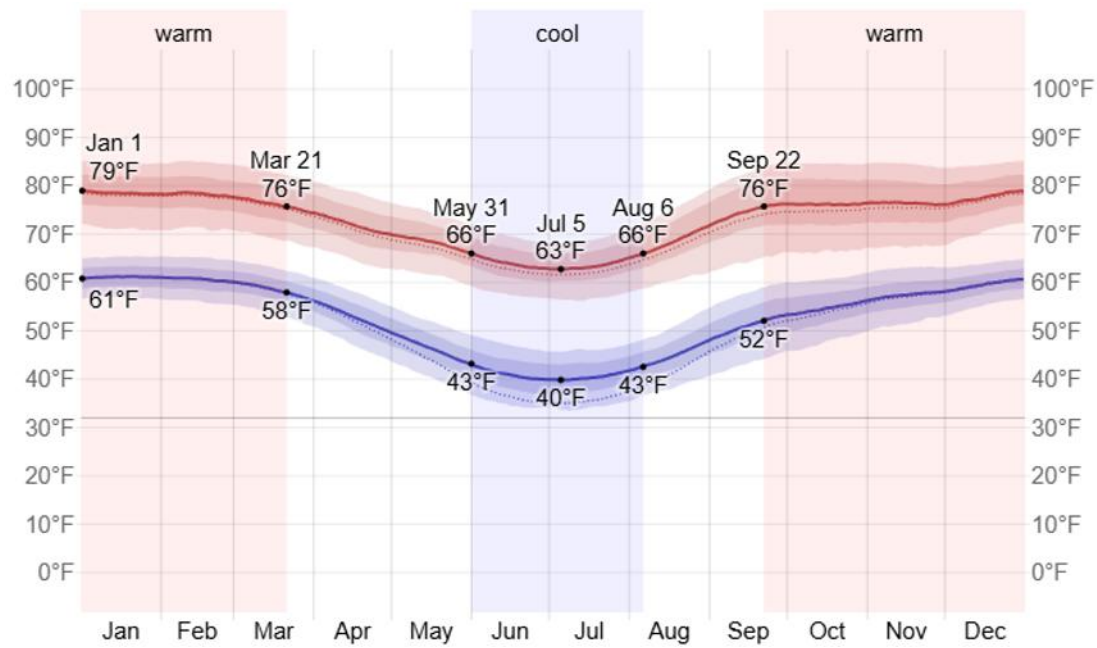


Figure 10: Average High and Low Temperatures in Midrand

(<https://weatherspark.com/y/95267/Average-Weather-in-Pretoria-Gauteng-South-Africa-Year-Round>)

6.4 Geology and Soils

According to the Geohydrological Investigation and Geotechnical Investigation, the site is underlain by geological formations associated with the Johannesburg Dome of the Transvaal Supergroup. The underlying geology consists primarily of granite, granite-gneiss, amphibolite and associated weathered materials. These geological formations support a minor aquifer system and generally exhibit favourable conditions for development. The investigations confirmed that no significant geological constraints, dolomitic conditions or instability risks occur within the site. The soils occurring within the site exhibit varying drainage characteristics and permeability properties, which influence the movement and storage of water within the landscape. Figure below is the Geology map of the study area.

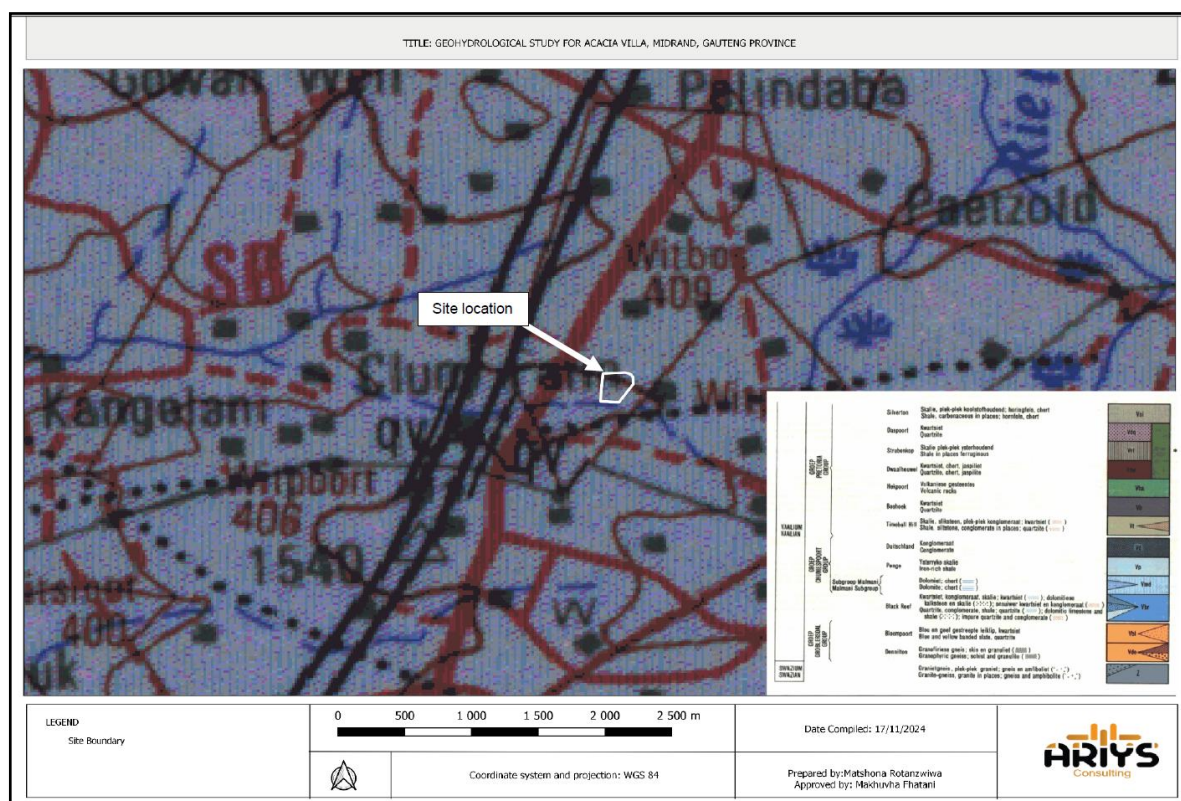


Figure 11: Geology Map

6.5 Socio-Economic

The Acacia Villa Estate is located within the jurisdiction of the City of Johannesburg Metropolitan Municipality (CoJ), a highly urbanised and rapidly growing economic area characterised by strong residential demand, infrastructure pressure, and continued inward migration. According to the CoJ Spatial Development Framework (SDF) and Integrated Development Plan (IDP), Midrand forms part of a strategic development corridor identified for consolidation of urban growth, intensification of residential development, and improved access to housing opportunities.

The broader CoJ municipal area accommodates a diverse and growing population, with a relatively young demographic profile and a significant proportion of working-age residents. The municipality continues to experience high demand for residential accommodation driven by urbanisation, migration from other provinces, and proximity to major economic nodes such as Sandton, Midrand, and Centurion. Employment within the region is largely concentrated in the tertiary sector, including finance, business services, logistics, retail, and construction, with persistent challenges relating to unemployment and income inequality as highlighted in the CoJ IDP.

In this context, the Acacia Villa Estate contributes to addressing identified spatial and housing pressures by providing residential accommodation within an area already earmarked for urban development and densification in terms of the CoJ SDF. The development supports municipal objectives relating to efficient land use, urban consolidation, and housing delivery within established urban nodes.

From a socio-economic perspective, the project has contributed to temporary and permanent employment opportunities during the construction and operational phases, as well as indirect economic stimulation through demand for local goods and services. In addition, the development contributes to the municipal rates base, thereby supporting local revenue generation. The continuation and formalisation of the development are expected to result in long-term socio-economic benefits that align with municipal planning objectives.

6.6 Land Use and Visual Character

The current land use within the site comprises a developed residential estate with associated internal roads, parking areas, stormwater infrastructure, boundary walls and supporting services. The surrounding landscape is characterised by residential estates, agricultural holdings, roads and other urban infrastructure. The visual character of the area reflects an urbanising environment where residential development has become the dominant land use.

6.7 Groundwater Resources

The area is distinguished by a minor aquifer system characterised by generally low groundwater yields and low vulnerability to contamination. Available borehole information indicates groundwater levels ranging from shallow to moderate depths below ground level. The groundwater resource forms part of the Crocodile (West) and Marico Water Management Area.

A borehole located within the property is currently utilised as a back-up water supply. Water quality analyses undertaken on groundwater samples indicated that the groundwater is generally suitable for domestic use, with no significant microbiological or chemical contamination identified during testing. The groundwater resource therefore represents an important back-up water supply for the development and requires ongoing protection from pollution sources associated with residential activities.

6.8 Electricity

Electricity supply is already available within the Estate. To minimise overall electricity consumption and promote energy efficiency, renewable energy systems are utilised on the property. These include solar power installations that serve as a supplementary and backup energy source, thereby reducing reliance on the electricity grid and contributing to more sustainable energy use within the development.

7 TO IDENTIFY, ASSESS AND RANK THE IMPACTS AND RISKS THE ILLEGAL ACTIVITIES IMPOSED ON THE STUDY AREA

7.1 Approach to the Section 24G

Section 24(G) NEMA process sets out to rectify the unlawful activity by retrospectively assessing impacts to allow the competent authority to decide whether such an activity should be authorised, depending on the assessed environmental impacts. The application process is also subject to a fine,

calculated based on several factors, including the extent of the environmental impact caused by the activity. Ultimately, the decision to authorise the unlawful activity rests with the competent authority. Should environmental authorisation be refused, the unlawful activity will have to be ceased and demolished.

The S24G Application for this project complies with the National Environmental Management Act (1998) (as amended) and the NEMA EIA Regulations (2014) and the relevant Department of Forestry, Fisheries and the Environment guidelines, including the Guideline on Need and Desirability. The guiding principles of an EIA are listed below.

7.2 Guiding Principles for an EIA

The Environmental Impact Assessment (EIA) process must be conducted in an open, transparent, and inclusive manner throughout its duration. This requires a participatory approach that encourages meaningful stakeholder engagement, ensures unrestricted access to relevant information, and promotes transparency in decision-making. The process should be free from any undisclosed intentions or bias, with all information gathered and considered objectively. Furthermore, the project proponent must maintain an open-door policy, providing Interested and Affected Parties (I&APs) with adequate opportunities to participate, raise concerns, and contribute to the assessment process.

There should be ongoing consultation with interested and affected parties representing all walks of life. Sufficient time to comment must be allowed. The opportunity to comment should be announced on an ongoing basis. There should be opportunities for input by specialists and members of the public. Their contributions and issues should be considered when technical specialist studies are conducted and when decisions are made.

7.3 Information Gathering

The EAP identified the information that would be required for the impact assessment, and the relevant data were obtained. In addition, available information about the receiving environment was gathered from reliable sources, interested and affected parties, previous documented studies in the area and previous EIA Reports and Specialists Studies. The project team visited the site to gain first-hand information and an understanding of the existing operations and the project.

7.4 Specialist Assessments

The specialist reports were conducted in line with the protocol requirements in accordance with Government Notice No. 648 and Appendix 6 of the EIA Regulations, 2014 as amended. These specialist reports findings and recommendations have been included as part of this Assessment. Hence, the impacts were incorporated to assess and decide on the best practicable environmental option. Herein below are the findings and recommendations from the specialists:

7.4.1 *Hydropedological Study*

The Hydropedological Study undertaken by Ariys Consulting assessed the hydrological behaviour of soils within the Acacia Villas development area and evaluated the relationship between soil properties, groundwater movement, infiltration potential and surface water processes. The study

confirmed that the site is characterised by soils exhibiting varying permeability, drainage characteristics and moisture retention capacities, which collectively influence the movement and storage of water within the landscape. The assessment further established that the site falls within a hydrological environment that has already experienced varying degrees of anthropogenic disturbance due to historical land use activities and ongoing urban expansion within the Midrand area. These disturbances have altered some of the natural infiltration and runoff characteristics of the site, resulting in modified hydrological functioning in certain areas.

The assessment identified the importance of maintaining the natural hydrological connectivity of the site to ensure that infiltration processes, groundwater recharge functions and stormwater attenuation capabilities are not significantly compromised by the development. The findings indicated that uncontrolled surface runoff generated from impervious surfaces such as roads, parking areas and residential buildings could potentially increase erosion risks, sediment transport and localised flooding if not appropriately managed. The study further highlighted that changes to the natural soil profile through excavation, compaction and vegetation removal have the potential to alter hydropedological processes and reduce the capacity of the soils to regulate water movement naturally.

The specialist recommended to incorporate a comprehensive stormwater management system designed to mimic natural hydrological processes as far as practically possible. Stormwater generated by the development should be collected, attenuated and discharged in a controlled manner to prevent concentrated flows that could result in erosion, sedimentation and downstream flooding. Attenuation structures, infiltration measures and energy dissipation mechanisms should be incorporated into the stormwater design to reduce runoff velocities and maintain pre-development hydrological conditions where feasible.

The specialist further recommended ongoing monitoring and maintenance of stormwater infrastructure throughout the operational phase of the development. Any evidence of erosion, ponding, sediment accumulation or infrastructure failure should be addressed promptly. Rehabilitation of disturbed areas should include the re-establishment of indigenous vegetation cover to promote infiltration, improve soil stability and restore ecological functioning. Through the implementation of these measures, the hydropedological integrity of the site can be maintained and potential impacts reduced to acceptable levels.

7.4.2 Flood line Assessment Study

The Floodline Assessment undertaken by Ariys Consulting identified areas potentially affected by flood events and established floodline boundaries that must be considered during the development planning process. The findings indicated that portions of the site located in close proximity to drainage features and lower-lying areas may be susceptible to floods during significant rainfall events. The study further confirmed that inappropriate placement of infrastructure within these areas could increase the risk of flood damage, threaten public safety and alter natural flow patterns. However, the assessment determined that sufficient developable area exists outside of the identified flood-prone zones, allowing the development to proceed without compromising flood management objectives.

The specialist recommended that all permanent infrastructure, including residential buildings, roads, services and associated facilities, be located outside the delineated floodline areas. The identified flood-prone zones should be maintained as open space or managed environmental areas to preserve

natural flood attenuation functions and ensure that floodwaters can continue to move through the landscape without obstruction. Under no circumstances should flood-sensitive areas be filled, channelled or altered in a manner that could increase upstream or downstream flood risks.

The study further recommended that the stormwater management system be integrated with the flood management strategy to ensure that post-development runoff volumes and velocities do not exceed pre-development conditions. Attenuation facilities, energy dissipation structures and appropriately sized drainage infrastructure should be incorporated into the engineering design to minimise flood-related impacts.

Long-term monitoring and maintenance of drainage infrastructure were also recommended to ensure continued functionality and effectiveness. Routine inspections should be undertaken following major rainfall events to identify erosion, sedimentation, infrastructure damage or blockages that may affect flood management performance. Through the implementation of these measures, the specialist concluded that flood risks can be effectively managed throughout the life of development.

7.4.3 Geohydrological Study

The Geohydrological Assessment identified several potential impacts associated with the development on groundwater and surface water resources during the pre-construction, construction and operational phases. During the pre-construction and construction phases, vegetation clearing may increase hydrological yield by reducing infiltration and increasing surface runoff, thereby altering the natural hydrological regime. Construction activities may also result in the contamination of the shallow groundwater system through accidental spillages of fuels, oils, lubricants, concrete, and other hazardous construction materials, particularly during rainfall events when contaminants may infiltrate into the subsurface.

The temporary diversion of surface water required to facilitate construction activities may alter natural drainage patterns and adversely affect downstream aquatic habitats. Furthermore, construction activities, including the installation of sewer infrastructure, may result in sedimentation and contamination of nearby surface water resources if appropriate controls are not implemented. During the operational phase, uncontrolled groundwater abstraction has the potential to lower groundwater levels if boreholes are not managed sustainably, while leakage or infiltration from domestic wastewater infrastructure may negatively affect groundwater quality due to the introduction of nutrients and other contaminants into the shallow aquifer. Overall, the groundwater risk assessment concluded that the development presents a low to medium risk to groundwater quantity and quality, provided that appropriate mitigation measures are implemented.

To minimise potential impacts on groundwater and surface water resources, the specialist recommends that vegetation clearing be limited to the minimum area required for construction and that all disturbed areas be progressively rehabilitated and re-vegetated to restore natural infiltration and reduce surface runoff. Appropriate drainage systems should be installed to manage stormwater and prevent water ponding, particularly given the shallow groundwater conditions at the site. Earthmoving machinery and construction vehicles should be inspected regularly to prevent hydrocarbon leakages, while fuels, chemicals and construction materials should be stored in accordance with applicable environmental requirements to prevent contamination of groundwater.

The Groundwater monitoring boreholes should be installed upstream, within, and downstream of the development to enable routine monitoring of groundwater levels and quality throughout construction and operation. A surface water quality monitoring programme should also be implemented to ensure that construction activities do not result in deterioration of nearby water resources. Where temporary stream diversions are required, these should be carefully designed to maintain natural flow characteristics and minimise impacts on aquatic habitats. During operation, boreholes should be managed in accordance with the recommended abstraction rates and fitted with automatic cut-off systems to prevent over-abstraction below critical groundwater levels.

In addition, groundwater quality should be monitored on a quarterly basis, and wastewater infrastructure should be routinely inspected and maintained to prevent leakages and contamination of the underlying aquifer. The specialist also recommends that water from the onsite boreholes be treated through an appropriate filtration system before being used for human consumption, as the water quality analysis indicated elevated turbidity, E. coli, total coliforms, iron and manganese concentrations that exceed the applicable drinking water standards.

The specialist concluded that, although the site is underlain by a shallow groundwater system that is susceptible to contamination, the development is considered feasible from a geohydrological perspective. With the implementation of the recommended mitigation measures, including groundwater and surface water monitoring, pollution prevention, sustainable borehole management, appropriate stormwater control and rehabilitation of disturbed areas, the residual impacts on groundwater resources are expected to remain at an acceptable level.

7.4.4 Wetland Rehabilitation and Monitoring Plan

The Wetland Rehabilitation Plan undertaken by Selahle Consultancy & Projects (Pty) Ltd was prepared to guide the rehabilitation and long-term management of the wetland system associated with Holdings 105 and 106 Blue Hills Agricultural Holdings. The assessment recognised that the wetland has experienced varying degrees of degradation resulting from historical disturbances including vegetation clearing, erosion, alien invasive plant encroachment, waste dumping and surrounding development pressures. These disturbances have affected the ecological functioning and habitat quality of portions of the wetland system and have reduced its ability to effectively perform certain ecosystem services.

The rehabilitation assessment confirmed that despite historical impacts, the wetland continues to perform important ecological functions including water quality improvement, flood attenuation, groundwater recharge support, biodiversity habitat provision and sediment retention. The study identified several opportunities for ecological restoration through targeted rehabilitation interventions aimed at improving ecological integrity and restoring natural wetland processes. The assessment further highlighted the importance of protecting the wetland from future encroachment and ensuring that development activities do not compromise rehabilitation objectives.

The specialist recommended the implementation of a comprehensive wetland rehabilitation programme focusing on erosion control, removal of invasive alien vegetation, re-establishment of indigenous vegetation communities and restoration of natural hydrological processes. Areas affected by erosion should be stabilised using appropriate bioengineering and ecological restoration techniques to prevent further degradation and promote vegetation recovery.

The assessment further recommended ongoing management of invasive species and protection of rehabilitation areas from future disturbance. Construction activities should be confined to the approved work areas and excluded from sensitive wetland habitats wherever possible and conservation buffers should be maintained to protect ecological functioning. Rehabilitation measures should be implemented progressively and monitored regularly to assess effectiveness and identify any adaptive management requirements.

Long-term ecological monitoring should be undertaken to evaluate vegetation recovery, erosion control success, hydrological functioning and overall wetland health. Through implementation of these measures, the ecological condition of the wetland can be progressively improved and maintained over time.

7.4.5 Aquatic Assessment Study

An Aquatic Ecological Assessment undertaken by Ecosnetle (Pty) Ltd assessed the potential impacts of the development on the freshwater ecosystems associated with the unnamed stream and channelled valley-bottom wetland within the study area. The assessment found that the unnamed stream is currently in a D/E (Largely to Seriously Modified) Present Ecological State (PES), primarily due to historical anthropogenic disturbances, poor water quality, altered flow regimes, urban development, and sewage contamination. Water quality analysis indicated elevated concentrations of cyanide, faecal coliforms, orthophosphates, chemical oxygen demand (COD), ammonia, copper, and oil and grease, all of which exceed the applicable wastewater discharge limits. These water quality issues have resulted in poor aquatic habitat conditions and a low diversity of macroinvertebrate communities, with pollution-tolerant species dominating the aquatic assemblage.

The study also found that existing infrastructure, including upstream road crossings, an artificial dam, and historical infilling activities, have altered the natural hydrology and habitat integrity of the freshwater system. The stream was assigned a Low Ecological Importance and Sensitivity (EIS) and a Recommended Ecological Category (REC) of C/D, indicating that ecological improvement should be followed through appropriate management interventions.

The specialist identified several potential impacts associated with the development, particularly during the construction phase. These include disturbance of the stream and associated wetland, alteration of natural hydrological processes, increased erosion and sedimentation, deterioration of water quality due to sediment-laden runoff, accidental pollution from hydrocarbons, cement, chemicals and construction waste, disturbance of aquatic habitats and macroinvertebrate communities, loss of riparian vegetation, and increased stormwater runoff into the receiving watercourse. During the operational phase, potential impacts include continued degradation of water quality through contaminated stormwater runoff, altered stormwater flow patterns, increased pollutant loading into the freshwater ecosystem, and cumulative impacts associated with surrounding urban development if stormwater infrastructure is not adequately maintained. Despite these potential impacts, the Department of Water and Sanitation (DWS) Risk Assessment Matrix determined that the outstanding construction and operational activities pose an overall Low Risk to the freshwater environment, provided that appropriate mitigation measures are implemented.

To minimise potential impacts on the freshwater ecosystem, the specialist recommends the implementation of robust stormwater management systems to prevent erosion, sedimentation, and uncontrolled runoff into the watercourse. Environmentally sensitive site development principles should be adopted throughout construction, while good construction practices must be strictly adhered to at all times. Construction activities should be carefully managed to avoid unnecessary disturbance of riparian vegetation and aquatic habitats, and all disturbed areas should be rehabilitated as soon as practicable following construction.

Mitigation measures should be implemented to prevent the discharge of contaminated runoff, wastewater, hydrocarbons, chemicals, or other hazardous substances into the stream. Appropriate erosion and sediment control measures should be installed prior to construction and maintained throughout the construction period. Furthermore, stormwater infrastructure should be routinely inspected and maintained during the operational phase to ensure its continued effectiveness, while ongoing environmental monitoring should be undertaken to assess water quality, ecological functioning, and the success of rehabilitation measures. The specialist further recommends that localised sources of pollution, particularly sewage leaks affecting the watercourse, be managed to improve the ecological condition of the stream over time.

Based on the findings of the assessment, the aquatic specialist concluded that although the freshwater ecosystem has already been significantly modified by historical activities and existing pollution sources, the remaining construction activities associated with the development are environmentally acceptable. This conclusion is subject to the implementation of the recommended mitigation measures, including effective stormwater management, adherence to good construction practices, ongoing maintenance and monitoring, and compliance with the Environmental Management Programme (EMPr). With these measures in place, the development is not expected to result in significant adverse impacts on the receiving freshwater ecosystem, and the residual risk to aquatic ecological resources is considered to be low

7.5 Environmental Management Programme

An Environmental Management Programme (EMPr) containing mitigation, management and monitoring measures and specifying roles and responsibilities was compiled with specialist input and is included in this report.

7.6 Stakeholder Engagement

Registered Interested and Affected Parties including relevant Organs of State, are consulted during the process. All their comments will be formally responded to and incorporated into the S24G Application and Environmental Management Programme (EMPr) that will be submitted to the competent authority.

7.7 Assessment of each identified potentially significant impact and risk.

Potential impacts that may be caused by the development will be identified using input from the following:

- Views of I&APs;
- Existing information.
- Site visit with the project team; and

- Legislation

8 MOTIVATION FOR THE ACACIA VILLA ESTATE DEVELOPMENT

The Acacia Villa Estate development is required to address the increasing demand for residential accommodation within the Midrand area, which has experienced substantial urban growth due to its strategic location between Johannesburg and Pretoria. The development contributes towards the provision of much-needed housing opportunities within an area that is already supported by existing road networks, bulk services, commercial facilities, educational institutions and healthcare services. By accommodating residential growth within an established urban area, the development promotes efficient land use and supports sustainable settlement patterns in accordance with national, provincial and municipal planning objectives.

The development is closely linked to its contribution towards sustainable development through the integration of environmental, social and economic considerations. From a social perspective, the development provides housing opportunities within a secure residential environment and improves access to employment centres, public services and community facilities. The development further contributes to improved quality of life by providing residents with access to essential infrastructure and services within a well-located urban setting.

Economically, the development contributes to local and regional growth through investment in infrastructure, property development, employment creation and the generation of municipal revenue. The establishment of the estate support local businesses and service providers, while the long-term occupation of the residential units contributes towards the economic sustainability of the surrounding area. The development further supports government objectives aimed at stimulating economic activity and addressing housing demand within Gauteng Province.

The environmental component provides an opportunity to assess the environmental impacts associated with the unauthorised activities undertaken within the wetland and its buffer area and to implement appropriate corrective measures. Specialist investigations conducted have identified mitigation and rehabilitation measures aimed at restoring affected areas, improving ecological functioning, managing stormwater runoff and preventing further degradation of the wetland system. The implementation of these measures will contribute towards the long-term protection and management of environmental resources while ensuring that the development remains environmentally responsible.

Furthermore, the development incorporates measures that promote resource efficiency and environmental sustainability. Existing electricity infrastructure serves the estate, while renewable energy systems, including solar power installations, are utilised as supplementary and backup energy sources to reduce reliance on electricity supply and minimise energy consumption. These initiatives support broader sustainability objectives by reducing the development's environmental footprint and promoting more efficient use of resources.

9 PUBLIC PARTICIPATION PROCESS

9.1 Preliminary Public Participation

Preliminary Public Participation was undertaken in accordance with Section 24G (1) (aa)(G) of the National Environmental Management Act, 1998 (Act No. 107 of 1998, as amended, by publishing a notice of the Section 24G Rectification Application in the Midrand Reporter Newspaper. The notice was published for a period of 20 days, from 15 October 2024 to 4 November 2024, to notify Interested and Affected Parties (I&APs) and provide them with an opportunity to register and submit comments.

9.2 Public Participation during the EIR Phase

The Public Participation for the Environmental Impact Report (EIR) Phase will commence on the 2 July 2026 until 31 July 2026. This will be for a period of 30 days as prescribed in the directive issued on 23 March 2026. The public participation activities will include:

- Placement of a newspaper advert in the Pretoria North Newspaper
- Erection of A2 (594 X 420mm) site notices around the study area
- Circulation of the Draft EIR to registered Interested and Affected Parties, Organs of State and Landowners.

The CRR will be updated continuously and will be presented to the authorities and other I&APs together with the consultation and final reports as a full record of issues raised, including responses on how the issues were considered during the application process.

10 IMPACT ASSESSMENT

10.1 Assessment Methodology

10.1.1 Introduction

In terms of section 3(j) in Appendix 1 of the 2014 EIA Regulations as amended, the assessment of possible impacts should consider the following

- Cumulative impacts;
- The nature, significance and consequences of the impact and risk;
- The extent and duration of the impact and risk;
- The probability of the impact and risk occurring;
- The degree to which the impact and risk can be reversed;
- The degree to which the impact and risk may cause irreplaceable loss of resources; and
- The degree to which the impact and risk can be avoided, managed or mitigated

10.1.2 Impact Rating Methodology

The significance of potential environmental impacts identified during the impact assessment phase, including the identified impacts during the specialist investigations will be determined using a ranking scale (Table below), based on the following:

Table 6: Methodology for Impacts Assessed

NATURE

Include a brief description of the impact of environmental parameter being assessed in the context of the project. This criterion includes a brief written statement of the environmental aspect being impacted upon by a particular action or activity.

GEOGRAPHICAL EXTENT

This is defined as the area over which the impact will be expressed. Typically, the severity and significance of an impact have different scales and as such bracketing ranges are often required. This is often useful during the detailed assessment of a project in terms of further defining the determined.

1	Site	The impact will only affect the site
2	Local/district	Will affect the local area or district
3	Province/region	Will affect the entire province or region
4	International and National	Will affect the entire country

PROBABILITY

This describes the chance of occurrence of an impact

1	Unlikely	The chance of the impact occurring is extremely low (Less than a 25% chance of occurrence).
2	Possible	The impact may occur (Between a 25% to 50% chance of occurrence).
3	Probable	The impact will likely occur (Between a 50% to 75% chance of occurrence).
4	Definite	Impact will certainly occur (Greater than a 75% chance of occurrence).

REVERSIBILITY

This describes the degree to which an impact on an environmental parameter can be successfully reversed upon completion of the proposed activity.

1	Completely reversible	The impact is reversible with implementation of minor mitigation measures
2	Partly reversible	The impact is partly reversible but more intense mitigation measures are required.
3	Barely reversible	The impact is unlikely to be reversed even with intense mitigation measures.
4	Irreversible	The impact is irreversible and no mitigation measures exist.

IRREPLACEABLE LOSS OF RESOURCES

This describes the degree to which resources will be irreplaceably lost as a result of a proposed activity.

1	No loss of resource.	The impact will not result in the loss of any resources.
2	Marginal loss of resource	The impact will result in marginal loss of resources.
3	Significant loss of resources	The impact will result in significant loss of resources.
4	Complete loss of resources	The impact is result in a complete loss of all resources.

DURATION		
This describes the duration of the impacts on the environmental parameter. Duration indicates the lifetime of the impact as a result of the proposed activity		
1	Short term	The impact and its effects will either disappear with mitigation or will be mitigated through natural process in a span shorter than the construction phase (0 – 1 years), or the impact and its effects will last for the period of a relatively short construction period and a limited recovery time after construction, thereafter it will be entirely negated (0 – 2 years).
2	Medium term	The impact and its effects will continue or last for some time after the construction phase but will be mitigated by direct human action or by natural processes thereafter (2 – 10 years).
3	Long term	The impact and its effects will continue or last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter (10 – 50 years).
4	Permanent	The only class of impact that will be non-transitory. Mitigation either by man or natural process will not occur in such a way or such a time span that the impact can be considered transient (Indefinite).
CUMULATIVE EFFECT		
This describes the cumulative effect of the impacts on the environmental parameter. A cumulative effect/impact is an effect which in itself may not be significant but may become significant if added to other existing or potential impacts emanating from other similar or diverse activities as a result of the project activity in question.		
1	Negligible Cumulative Impact	The impact would result in negligible to no cumulative effects
2	Low Cumulative Impact	The impact would result in insignificant cumulative effects
3	Medium Cumulative impact	The impact would result in minor cumulative effects
4	High Cumulative Impact	The impact would result in significant cumulative effects
INTENSITY/ MAGNITUDE		
Describes the severity of an impact		
1	Low	Impact affects the quality, use and integrity of the system/component in a way that is barely perceptible.
2	Medium	Impact alters the quality, use and integrity of the system/component but system/ component still continues to function in a moderately modified way and maintains general integrity (some impact on integrity).

3	High	Impact affects the continued viability of the system/ component and the quality, use, integrity and functionality of the system or component is severely impaired and may temporarily cease. High costs of rehabilitation and remediation.
4	Very high	Impact affects the continued viability of the system/component and the quality, use, integrity and functionality of the system or component permanently ceases and is irreversibly impaired (system collapse). Rehabilitation and remediation often impossible. If possible rehabilitation and remediation often unfeasible due to extremely high costs of rehabilitation and remediation.

SIGNIFICANCE

Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. This describes the significance of the impact on the environmental parameter. The calculation of the significance of an impact uses the following formula:

(Extent + probability + reversibility + irreplaceability + duration + cumulative effect) x magnitude/intensity.

The summation of the different criteria will produce a non-weighted value. By multiplying this value with the magnitude/intensity, the resultant value acquires a weighted characteristic which can be measured and assigned a significance rating.

Points	Impact Significance Rating	Description
6 to 28	Negative Low impact	The anticipated impact will have negligible negative effects and will require little to no mitigation.
6 to 28	Positive Low impact	The anticipated impact will have minor positive effects.
29 to 50	Negative Medium impact	The anticipated impact will have moderate negative effects and will require moderate mitigation measures.
29 to 50	Positive Medium impact	The anticipated impact will have moderate positive effects.
51 to 73	Negative High impact	The anticipated impact will have significant effects and will require significant mitigation measures to achieve an acceptable level of impact.
51 to 73	Positive High impact	The anticipated impact will have significant positive effects.
74 to 96	Negative very high impact	The anticipated impact will have highly significant effects and are unlikely to be able to be mitigated adequately. These impacts could be considered "fatal flaws".

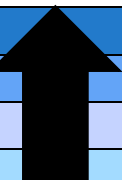
74 to 96	Positive Very high impact	The anticipated impact will have highly significant positive effects.
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ENVIRONMENTAL RATING SIGNIFICANCE KEY:

NEGATIVE IMPACTS

SIGNIFICANCE	RATING	FINAL RATING SCORE / VALUE RANGE
 Very Significant	Very High	74 – 96
Significant	High	51 – 73
Increasing Significance	Medium	29 – 50
Insignificant	Low	6 – 28

POSITIVE IMPACTS

SIGNIFICANCE	RATING	FINAL RATING SCORE / VALUE RANGE
 Very Significant	Very High	74 – 96
Significant	High	51 – 73
Increasing Significance	Medium	29 – 50
Insignificant	Low	6 – 28

The environmental issues and sensitivities relating to the physical, biological, social, economic and cultural aspects have been identified in the body of the report. The following potential impacts were identified and have been adequately investigated during the EIR phase:

- Direct loss of wetland habitat due to the placement of infrastructure within the wetland.
- Reduction in wetland extent and ecological functioning.
- Disturbance of wetland vegetation.
- Loss of aquatic habitat.
- Disturbance of riparian habitat associated with the wetland.
- Modification of natural water movement pathways.
- Alteration of natural stormwater flow patterns.
- Potential contamination from stormwater carrying pollutants.
- Habitat transformation within biodiversity-sensitive areas.
- Historical disturbance of the wetland.
- Loss of wetland ecological functioning.
- Alteration of wetland hydrology.
- Surface water pollution.
- Groundwater contamination.
- Erosion and sedimentation.
- Habitat loss within CBA and ESA areas.
- Habitat fragmentation and ecological connectivity loss.
- Alien invasive species proliferation.

- Alteration of natural stormwater flow regimes.

Table 9: Potential Impacts during Pre- construction, Construction and Operational Phases

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation (Management Actions:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented.
POST- CONSTRUCTION PHASE				
Non-compliance with Environmental Authorisation conditions, S24G authorisation conditions, NEMA requirements and future Water Use Licence conditions.	Very High	▪ All conditions contained in the Environmental Authorisation, S24G directive and Water Use Licence must be incorporated into the operational management procedures of the estate. ▪ A copy of all environmental authorisations, licences and approved management plans must be kept on site and made available during inspections. ▪ Environmental monitoring records, maintenance records and rehabilitation records must be maintained and made available to regulatory authorities upon request. ▪ Estate management personnel must receive environmental awareness training on wetland protection, waste management and pollution prevention. ▪ Environmental incidents and complaints must be recorded and corrective actions implemented.	Medium	Failure to comply with legislation & policies will lead to fines and conflicts with local, provincial and national stakeholders

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation (Management Actions:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented.
Historical disturbance and loss of wetland habitat due to the unlawful construction of the boundary wall, stormwater pipeline, culvert and associated infrastructure within the wetland and wetland buffer	Very High	- All areas disturbed during the installation of the stormwater pipeline, culvert, manholes and boundary wall must be assessed by a suitably qualified aquatic specialist to identify portions requiring rehabilitation. - Any construction rubble, concrete waste, excess fill material, discarded pipes, building materials and foreign debris remaining within the wetland or buffer must be removed and disposed of at a licensed waste disposal facility. - Areas where soil has been compacted by construction activities must be ripped to a minimum depth of 300 mm to improve infiltration and restore natural soil-water interactions. - Disturbed wetland areas must be re-vegetated using indigenous wetland species occurring naturally within adjacent undisturbed portions of the wetland. - Rehabilitation areas must be monitored annually for a minimum period of three	Medium	Continued degradation of wetland habitat, reduction in ecosystem services, increased habitat fragmentation, loss of biodiversity support functions and further deterioration of ecological integrity.

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation (Management Actions:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented.
		years to assess vegetation establishment, erosion control and ecological recovery. No further infrastructure expansion or disturbance may occur within the wetland or wetland buffer unless authorised.		
Historical loss and fragmentation of ecological habitat within the CBA and ESA due to the construction of the parking area.	High	- The remaining undeveloped portions of the CBA and ESA must be maintained as ecological open space and protected from future development activities. - No storage of construction materials, waste, vehicles or equipment may occur within these areas. - Indigenous grassland and wetland vegetation must be re-established in disturbed portions of the CBA and ESA. - Grass cutting within ecological management areas should be limited to maintenance - Annual ecological inspections must be undertaken to evaluate habitat condition and biodiversity recovery.	Low	Continued habitat fragmentation, reduction in ecological connectivity, further biodiversity loss and reduced ecological resilience within the landscape.
OPERATIONAL PHASE				

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation (Management Actions:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented.
Alteration of wetland hydrology and natural surface water flow patterns resulting from the stormwater pipeline, culvert, the boundary Wall and the discharge outlets installed within the wetland system.	Very High	- All stormwater outlets discharging into the wetland must be fitted with energy dissipaters such as riprap, gabions, Reno mattresses or concrete aprons to reduce flow velocities. - Stormwater discharge points must be inspected after every major rainfall event to identify erosion and sediment accumulation. - Inspect the boundary wall regularly, particularly before and after significant rainfall events, for signs of erosion, scour, cracking or structural instability. - Stormwater infrastructure must be inspected quarterly for blockages, damage and structural failure. - Confirm that adequate openings (e.g. holes, culverts or other appropriately designed flow-through structures, where applicable) are provided to allow the unrestricted movement of surface water through the boundary wall and to minimise ponding.	Medium	Increased erosion, alteration of hydrological processes, sediment deposition, reduced wetland functioning and increased downstream flood risks.

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation (Management Actions:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented.
		▪ Vegetated swales and infiltration zones must be maintained to promote infiltration and reduce runoff velocity. ▪ Maintain the stormwater pipeline, culvert and discharge outlets to ensure they remain free of sediment, debris and vegetation that may obstruct flow and contribute to localised flooding. ▪ Stormwater runoff from roads and parking areas must be directed through attenuation structures before entering the wetland.		
Surface water pollution associated with stormwater runoff from roads, parking areas and residential infrastructure.	Medium	▪ Stormwater drains must be cleaned quarterly to remove litter and sediment. ▪ Waste bins must be provided throughout the estate and emptied regularly to prevent litter entering stormwater systems. ▪ Spill kits must be maintained in maintenance areas and used immediately in the event of spills. ▪ Vehicle maintenance may not occur within open spaces, wetland buffers or	Low	Degradation of water quality and deterioration of aquatic ecosystem health.

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation (Management Actions:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented.
		areas where runoff can enter watercourses. - Residents must be educated regarding the disposal of paints, oils, detergents and chemicals. - Any pollution incidents must be reported and remediated immediately.		
Groundwater contamination from domestic wastewater and accidental pollution incidents.	High	- No hazardous chemicals, fuels or solvents may be stored within 50 metres of the wetland or borehole. - Water quality monitoring of the borehole must be undertaken annually and include pH, EC, nitrates, phosphates, E. coli and faecal coliform analysis. - Spill response procedures must be implemented and maintained by estate management. - Wastewater leaks must be repaired immediately upon identification. - Areas surrounding boreholes must remain free from contamination sources.	Low	Groundwater contamination, deterioration of water quality and long-term environmental degradation.
Increased stormwater runoff resulting from impermeable surfaces	High	Permeable paving should be used when replacing or upgrading paved surfaces.	Low	Increased flood risk, excessive runoff, downstream erosion, reduced groundwater recharge and

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation (Management Actions:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented.
associated with roads, parking areas, rooftops and paved areas		▪ Landscaping should maximise infiltration through grassed and vegetated areas. ▪ Stormwater runoff from hard surfaces must be directed through attenuation structures prior to discharge. ▪ Existing attenuation facilities must not be modified without approval from a qualified engineer. ▪ Open spaces should be maintained to allow infiltration and groundwater recharge. ▪ Stormwater management structures must be maintained throughout the life of the development.		increased pressure on the wetland system.
Alien invasive species infestation within wetland areas, open spaces and rehabilitation zones.	High	▪ An alien invasive species plan must be developed to identify the location and extent of invasive species infestations. ▪ Mechanical removal methods should be prioritised within wetland areas to prevent contamination of water resources. ▪ Chemical control methods may only be applied by qualified personnel and in accordance with label instructions.	Low	Further degradation of ecological habitat, reduced biodiversity, increased water consumption by invasive species.

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation (Management Actions:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented.
		- Follow-up clearing must be undertaken every six months. - Cleared areas must be replanted with indigenous species to prevent reinvasion.		
Waste generation and improper waste disposal associated with residential occupation and estate maintenance activities.	Medium	- Waste storage areas must be clearly designated and appropriately serviced. - Waste bins must be provided at strategic locations throughout the estate. - Domestic waste must be collected regularly by an authorised waste service provider. - Hazardous waste such as paints, oils, batteries and chemicals must be disposed of through licensed facilities. - Illegal dumping within wetland areas, buffers and open spaces must be prohibited. - Estate management must undertake monthly inspections of open spaces for litter and illegal dumping. - Awareness campaigns should be conducted to educate residents on responsible waste management practices.	Low	Pollution of water resources, visual degradation, pest infestations, odours and environmental health risks.

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation (Management Actions:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented.
		▪		
Potential disturbance to fauna associated with human activity, domestic pets and increased noise levels.	Medium	▪ Residents should be encouraged to keep domestic pets under control. ▪ Environmental awareness information should be distributed to residents. ▪ Indigenous vegetation should be maintained to provide habitat for fauna. ▪ Noise-generating maintenance activities should be restricted to daylight hours where possible.	Low	Disturbance of species movement and gradual biodiversity decline.
Employment opportunities and local economic stimulation associated with estate operation and maintenance.	Positive High	▪ Local contractors should be prioritised for landscaping, maintenance and rehabilitation activities. ▪ Environmental rehabilitation activities should create temporary employment opportunities where possible. ▪ Local suppliers should be utilised when procuring maintenance materials and services. ▪ Skills transfer opportunities should be encouraged through maintenance and environmental management programmes.	Positive High	Reduced local economic benefits and fewer opportunities for local participation in estate-related activities.

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation (Management Actions:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented.
		Estate management should support local service providers where practical.		
Continued ecological degradation resulting from the presence of unauthorised infrastructure within the wetland and wetland buffer.	Medium	- The boundary wall, culvert, manholes and stormwater infrastructure must be inspected regularly to determine whether additional ecological impacts are occurring. - Areas around the infrastructure must be monitored for erosion, sediment accumulation, vegetation loss and hydrological changes. - Disturbed areas surrounding infrastructure must be rehabilitated and maintained. - Wetland buffers must be clearly demarcated and protected from any future encroachment. - No additional infrastructure may be placed within the wetland or buffer without prior environmental authorisation and water use authorisation.	Low	Progressive deterioration of wetland ecological integrity, reduced ecosystem service provision, long-term degradation of freshwater resources.
REHABILITATION PHASE				

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation (Management Actions:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented.
Failure of wetland rehabilitation and ecological restoration measures to restore the ecological functioning of areas disturbed by the unlawful activities.	Medium	- All disturbed portions of the wetland and buffer areas affected by the boundary wall, stormwater pipeline, culvert and manholes must be rehabilitated in accordance with the approved rehabilitation Plan. - Compacted soils must be ripped to a minimum depth of 300 mm to restore infiltration and root penetration. - Disturbed areas must be re-contoured to match surrounding natural ground levels and restore natural drainage patterns. - Indigenous wetland vegetation representative of adjacent undisturbed wetland areas must be established within rehabilitation areas. - Corrective rehabilitation measures must be implemented where rehabilitation objectives are not being achieved. - Rehabilitation success indicators must include vegetation cover, species diversity, erosion control and hydrological recovery.	Low	Continued degradation of wetland habitat, failure to restore ecological processes, reduced ecosystem service provision and long-term ecological impairment.

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation (Management Actions:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented.
Failure of indigenous vegetation establishment within rehabilitated wetland, buffer and open space areas.	Medium	- Indigenous vegetation establishment must be monitored during the first three growing seasons following rehabilitation. - Areas where vegetation cover remains below 70% after one growing season must be replanted. - Supplemental watering may be undertaken during extended dry periods to assist establishment. - Protective measures must be implemented to prevent trampling and disturbance of newly rehabilitated areas. - Alien invasive species must be removed before they become established.	Low	Poor vegetation establishment may result in continued soil exposure, erosion, weed invasion and reduced ecological recovery.
Re-establishment and spread of alien invasive plant species within rehabilitated areas.	High	- All rehabilitation areas must be inspected every six months for the presence of invasive plant species. - Category 1b invasive species identified within rehabilitation areas must be removed immediately. - Mechanical removal methods must be prioritised within wetland areas. - Follow-up clearing must continue for a minimum period of five years.	Low	Alien species may suppress indigenous vegetation, reduce biodiversity and compromise rehabilitation success.

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation (Management Actions:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented.
		- Areas cleared of invasive vegetation must be immediately re-vegetated with indigenous species. - Monitoring records must be maintained to track invasive species control success. - Residents and maintenance personnel must be informed of prohibited invasive species.		
Long-term degradation of rehabilitated wetland and buffer areas due to future encroachment and disturbance.	High	- Wetland boundaries and buffer zones must be permanently demarcated using signage or other appropriate markers. - No future infrastructure, parking areas, stockpiling or dumping may occur within rehabilitated areas. - Routine inspections must be undertaken to identify unauthorised disturbances. - Residents and maintenance contractors must be informed of no-go areas.	Low	Future encroachment may reverse rehabilitation benefits and result in degradation of sensitive environmental features.

11 CONCLUSION

11.1 Assumptions and Limitations

In undertaking this investigation and compiling the Section 24G Report, the following has been assumed:

- The information provided by the proponent is accurate and unbiased, and no information that could change the outcome of the Environmental Authorisation process has been withheld.
- The scope of this investigation is limited to assessing the environmental impacts associated with the operational phases of the project.
- The conclusion and recommendations proposed are based solely on the information and scope of work as agreed with the applicant.

11.2 Conclusion

The essence of all Environmental Assessment Processes is aimed at ensuring informed decision-making and environmental accountability. Furthermore, it assists in achieving environmentally sound and sustainable development. The impact assessment for this project has been undertaken in line with the requirements prescribed in the EIA Regulations, 2014, as amended, promulgated under the National Environmental Management Act (Act No. 107 of 1998). The assessment of the possible impacts associated with the operational activities concluded that the impact on the surrounding environment is of medium to low significance. Recommendations have however, been made to address the impacts which could affect the biophysical and socio-economic environment. The significance of the potential environmental (biophysical and social) impacts associated with the illegal activities are discussed in detail under Section 10. It is the opinion of the EAP that the EA for this project should be granted, and the proposed mitigation should be included as the conditions of the authorisation.

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APPENDICES

Annexure A: EAP Affidavit

Appendix B: Applicant Affidavit

Appendix C: Site Plans

Appendix D: Site Photographs

Appendix E: Public Participation

Appendix F: Specialist Reports

- Appendix F1: Geohydrological Investigation
- Appendix F2: Hydropedological Study
- Appendix F3: Flood line Assessment
- Appendix F4: Aquatic Assessment Study
- Appendix F5: Stormwater Management Plan

Appendix G: Environmental Management Programme

Appendix H: Rehabilitation Plan

Appendix I: Permits & Licenses

Appendix J: S24G Application Form

Appendix K: EAP CV

Appendix L: Signed Directive