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PROJECT NAME:

PROPOSED WAREHOUSES AND ASSOCIATED INFRASTRUCTURE WITHIN THE EAST LONDON INDUSTRIAL DEVELOPMENT ZONE, EASTERN CAPE PROVINCE.

REPORT TITLE:
AQUATIC BIODIVERSITY COMPLIANCE STATEMENT

DEDEAT REFERENCE: TBC

DATE: 22 OCTOBER 2026

PREPARED BY:

ABANTU ENVIRONMENTAL SERVICES

PREPARED FOR:

east london idz
business streamlined

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DOCUMENT REVISION STATUS

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DATE	16 October 2026	21 October 2026

DECLARATION OF INDEPENDENCE

I, **Mandilakhe Msutu**, in my capacity as a specialist consultant, hereby declare that I -

- Act as an independent consultant;
- Do not have any financial interest in the undertaking of the activity, other than remuneration for the work performed in terms of the National Environmental Management Act, 1998 (Act 107 of 1998);
- Have and will not have vested interest in the operations of the facility;
- Have no, and will not engage in, conflicting interests in the undertaking of the activity;
- Undertake to disclose, to the competent authority, any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the National Environmental Management Act, 1998 (Act 107 of 1998);
- Will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not;
- As a registered member of the South African Council for Natural Scientific Professions, will undertake my profession in accordance with the Code of Conduct of the Council, as well as any other societies to which I am a member;
- Based on information provided to me by the project engineer and proponent, and in addition to information obtained during the course of this study, have presented the results and conclusion within the associated document to the best of my professional ability; and
- Undertake to have my work peer reviewed on a regular basis by a competent specialist in the field of study for which I am registered.



Mr. Mandilakhe Msutu (Pr.Sci.Nat)

AQUATIC BIODIVERSITY COMPLIANCE STATEMENT: PROPOSED WAREHOUSES AND ASSOCIATED INFRASTRUCTURE WITHIN THE EL IDZ.

CONTACT INFORMATION AND EXPERTISE

Table 1. Environmental Specialist details

Specialist:	Mr Mandilakhe Msutu (Reg. SACNASP, Pr. Sci.Nat)
Expertise:	Mandilakhe Msutu is an environmental specialist with 10 years of experience in scientific research and environmental consulting. His key expertise includes: • Environmental Assessment & Management • Fluvial Geomorphology • Surface Water Hydrology • Soil Science • Catchment Hydrological Modelling • Remote sensing & GIS applications for land use/cover change mapping **Qualifications** • B.Sc. Honours Environmental and Water Sciences (Environmental Assessment & Management, Surface Water Hydrology, Hydrogeology, Advanced Geographic Information System (GIS), Fluvial Geomorphology & Research Project. • B.Sc. Environmental and Water Sciences (Environmental & Waste Management, Groundwater Hydraulics, Surface Water Processes, Hydogeology, Soil Science, Geomorphology, Remote Sensing & GIS, Mathematics, Statistics for Natural Science, Environmental Law and Regulations (NEMA, NWA etc), Life Sciences, Biodiversity and Conversational Biology & Introduction to Geology of South Africa & Earth dynamics.) **Registrations and memberships:** • Professional Natural Scientist (Pr. Sci.Nat) (SACNASP) Registration No. 116842

Table 2. Assistant specialist

Assistant Specialist:	Ms Zimkita Dalasile (Cand.Sci.Nat (SACNASP)
Expertise:	Junior Environmental Scientist with 4 years' experience in environmental consulting and scientific research. My expertise includes environmental management, water resource management, water quality management, aquatic ecosystems, environmental impact assessments, scientific report writing, data analysis, environmental monitoring and environmental compliance audits. **Qualifications** • MSc Environmental Management with Ecological Water Requirements (Management of Ecological Drivers in Aquatic Systems & Management of Ecological Responders in Aquatic Systems) Mini Dissertation: Strategies to manage nutrient inputs and their effectiveness: A case study of the Hartbeespoort Dam • Postgraduate Diploma Integrated Water Resource Management (Water Resource Management, Spatial Analysis for IWRM, Environmental Management & Water Regulations, Water Quality Management and Aquatics Ecosystems Management) • BSc. Environmental and Water Science

	(Geology, Environmental Assessment and Management, Geohydrology, Hydrology and Advanced Geographical Information Systems for Environmental System) **Professional registrations:** • Candidate Natural Scientist (Cand.Sci.Nat) Registration No. 132501 • Candidate Environmental Assessment Practitioner Registration No. 2025/20366 **Training:** • Introduction Environmental Impact Assessments (EIA) (2024)

EXECUTIVE SUMMARY

The ELIDZ is proposing the construction of multiple warehouses, together with concrete hardstands, ancillary buildings, parking area and the associated engineering services to support the development. The National Web-based Environmental Screening Tool classified the aquatic biodiversity theme for Erf 60847, Erf 60859, Erf 60861, Erf 60932, Erf 60933 and Erf 60934 as **Very High** sensitivity, with mapped sensitivity features including aquatic ESA 1 and SWSA (sw)_Amathole. The aquatic biodiversity theme for Erf 60863 and Erf 60865 is classified as Low sensitivity. According to the protocol, where the information gathered from the site sensitivity verification differs from the screening tool designation of Very High aquatic biodiversity sensitivity, and it is found to be of a Low sensitivity, an Aquatic Biodiversity Compliance Statement must be submitted.

Therefore, this report presents an Aquatic Compliance Statement for the proposed development. The report details the outcomes of both a desktop analysis and a site survey conducted to confirm or dispute the findings by the DFFE screening tool. A site survey was conducted on 07 August 2026. No wetlands or watercourses were identified within the proposed development sites. Furthermore, according to the NFEPA dataset, no FEPA rivers or wetlands are mapped within 100 m and 500 m of the proposed development sites, respectively. However, three watercourses were identified outside the site boundaries, namely the unnamed river located east of Site 2, the Mvubukazi River located west of Site 3, and a small unnamed stream situated between Sites 1 and 2, with a small portion of Site 2 extending into the 100 m regulated area of the adjacent watercourse. In addition, a wetland was identified outside the proposed development sites, with a portion of site 1 falling within the regulated 500m buffer. Although a portion of the site falls within this buffer, the area is neither topographically nor hydrologically connected to the wetland. Therefore, no impacts on the wetland are anticipated. Based on the 100m buffer for the watercourses any development that occurs within the buffer would be of Very high sensitivity, thus, must be avoided in particular a small portion of site 3, while areas outside of the buffer within the development footprints would be considered of Low sensitivity.

No direct impacts on the identified watercourses are anticipated. However, potential indirect impacts may arise from increased surface runoff associated with the increase of impermeable surfaces, as well as erosion and sedimentation during construction activities. With the implementation of appropriate stormwater management and erosion control measures significant adverse impacts on the watercourses are not anticipated.

In light of the aforementioned, the proposed development is deemed to be of "Low" aquatic biodiversity sensitivity theme. It is the opinion of the specialist that NO FATAL FLAWS exist with the proposed development and a positive Environmental Authorisation be issued.

MINIMUM REQUIREMENTS IN TERMS OF PROTOCOLS

This Compliance Statement is compiled to conform to the protocol for specialist assessment and minimum report content requirements for environmental impacts on aquatic biodiversity as specified in Procedures for the Assessment And Minimum Criteria For Reporting On Identified Environmental Themes In Terms Of Sections 24(5)(A) and (H) And 44 Of the National Environmental Management Act (Act No. 107 of 1998), as amended when applying for an Environmental Authorisation (GN No. 43110 of 20 March 2020).

Table 3. Requirements for an Aquatic Compliance statement

Item No.	Requirement	Report Reference
3.1	The compliance statement must be prepared by a suitably qualified specialist registered with SACNASP, with expertise in the field of aquatic sciences.	Refer to the **CONTACT INFORMATION AND EXPERTISE** before the Executive Summary
3.2	The compliance statement must:	
3.2.1	be applicable to the preferred site and the proposed development footprint;	Refer to the **PROJECT DESCRIPTION** Section 1.1
3.2.2	confirm that the site is of "low" sensitivity for aquatic biodiversity; and	Refer to the **MOTIVATION FOR SUBMISSION OF A COMPLIANCE STATEMENT,** Section 4
3.2.3	indicate whether or not the proposed development will have an impact on the aquatic features.	Refer to the **MOTIVATION FOR SUBMISSION OF A COMPLIANCE STATEMENT** Section 4 and **CONCLUSION**, Section 5
3.3	The compliance statement must contain, as a minimum, the following information:	
3.3.1	contact details of the specialist, their SACNASP registration number, their field of expertise and a curriculum vitae;	Refer to the **CONTACT INFORMATION AND EXPERTISE** before the Executive Summary as well as Error! Reference source not found.
3.3.2	a signed statement of independence by the specialist;	Refer to the **DECLARATION OF INDEPENDENCE**

3.3.3	a statement on the duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment;	Refer to the **SITE INSPECTION DETAILS,** Section 1.4
3.3.4	a baseline profile description of biodiversity and ecosystems of the site;	Refer to the **RECEIVING ENVIRONMENT ,** Section 3
3.3.5	the methodology used to verify the sensitivities of the aquatic biodiversity features on the site including the equipment and modelling used where relevant;	Refer to the **METHODOLOGY,** Section 2.
3.3.6	in the case of a linear activity, confirmation from the aquatic biodiversity specialist that, in their opinion, based on the mitigation and remedial measures proposed, the land can be returned to the current state within two years of completion of the construction phase;	N/A
3.3.7	where required, proposed impact management outcomes or any monitoring requirements for inclusion in the EMPr;	Refer to the **MITIGATION MEASURES,** Section 5.1
3.3.8	a description of the assumptions made as well as any uncertainties or gaps in knowledge or data; and	Refer to the **ASSUMPTIONS AND LIMITATIONS,** Section 1.3
3.3.9	any conditions to which this statement is subjected.	Refer to the **ASSUMPTIONS AND LIMITATIONS,** Section 1.3
3.4	A signed copy of the compliance statement must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.	Refer to the **Document Revision Status**

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ABBREVIATIONS

CBA	Critical Biodiversity Areas
DFFE	Department of Fisheries, Forestry and the Environment
ELIDZ	East London Industrial Development Zone
ECBCP	Eastern Cape Biodiversity Conservation Plan
EAP	Environmental Assessment Practitioner
ESA	Ecological Support Area
NEMA	National Environmental Management Act
SANBI	South African National Biodiversity Institute
WMA	Water Management Area

1. INTRODUCTION

1.1 PROJECT DESCRIPTION

Abantu Environmental Services (Pty) Ltd has been appointed by East London Industrial Development Zone (ELIDZ) to conduct an Aquatic Biodiversity Compliance Statement. The ELIDZ is proposing the construction of multiple warehouses and associated infrastructure, with footprints as follows;

Table 4. Development sites

Erf number	Extent (m^2)	Warehouse Footprint (ha)
Site 1		
60932	20622.47	2.06
60933	20622.32	2.06
60934	20622.17	2.06
Site 2		
60859	20415.40	2.04
60861	21983.25	2.198
60863	22839.16	2.28
60865	26362.58	2.636
Site 3		
60847	40861.38	4.086
Total	260936.05	19.42

Development key components;

- Warehouse building
- Office Area
- Refuse Area
- Hardstand Area
- Roadways And Parking

Civil services will tie into the existing municipal services within the ELIDZ.

TYPICAL WAREHOUSE LAYOUT



TYPICAL HARDSTAND LAYOUT



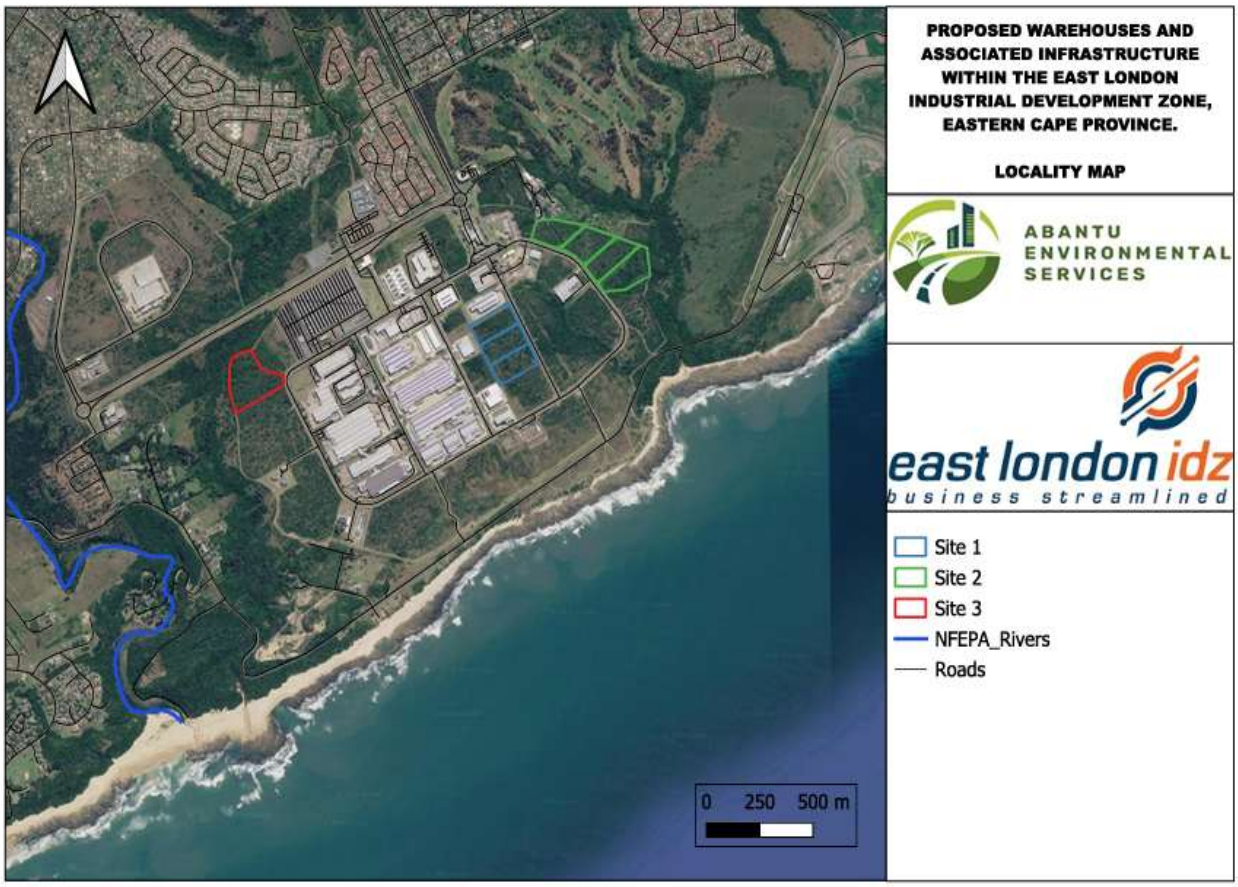


Figure 1. Locality map

1.2 OBJECTIVES

The objectives of the project are listed below. These objectives are based on the requirements of each specialist protocol as listed in the DFFE Screening Report:

- Review available desktop information and relevant spatial datasets to identify aquatic biodiversity features within the proposed sites.
- Undertake a field survey to verify the presence of aquatic ecosystems, including wetlands and watercourses, within the proposed sites.
- Describe both the existing area prior to construction in terms of its current ecological characteristics and general sensitivity of the components to change.
- Confirm or dispute the aquatic biodiversity sensitivity classification assigned by the Screening Tool based on desktop information and field observations.

1.3 ASSUMPTIONS AND LIMITATIONS

The findings and recommendations of this report may be susceptible to the following uncertainties and limitations:

- The report was based on a once-off field survey conducted on 07 August 2026. As aquatic ecosystems exhibit temporal and seasonal variability, the observations reflect the conditions present at the time of the survey.
- The report is based on currently available information and, as a result, limited by the information provided by the client.
- All information provided by the applicant to the specialist was correct and valid at the time it was provided.
- The author does not accept any responsibility in the event that additional information comes to light at a later stage of the process.
- The scope of this investigation is limited to assessing the potential environmental impacts associated with the proposed development only.

It should be noted that findings, recommendations, and conclusions provided in this report are based on the author's best scientific and professional knowledge and experience. No part of this report may be amended or extended without prior written consent of the author. Any recommendations, statements or conclusions drawn from or based on this report must clearly cite or refer to this report. Whenever such recommendations, statements, or conclusions form part of the main report to current investigation, this report must be included in its entirety.

1.4 SITE INSPECTION DETAILS

Date: 07 August 2026

Season: Winter

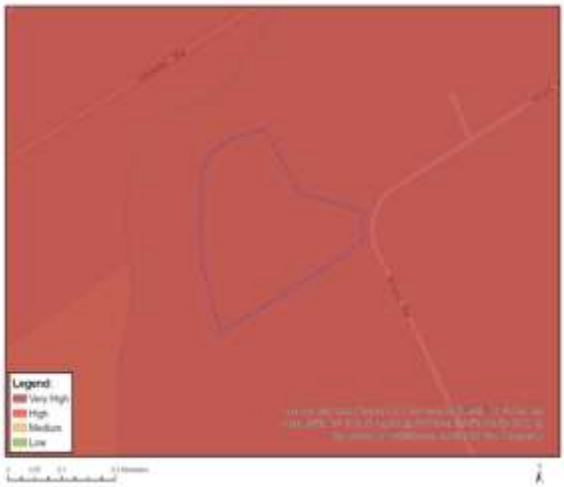
1.5 SCREENING TOOL FINDINGS

The project area was assessed at desktop level using the National Web-based Environmental Screening tool and SANBI datasets. The screening tool classified the aquatic biodiversity theme for Erf 60847, Erf 60859, Erf 60861, Erf 60932, Erf 60933 and Erf 60934 as **Very High** sensitivity, with mapped sensitivity features including aquatic ESA 1 and SWSA (sw)_Amathole. The aquatic biodiversity theme for Erf 60863 and Erf 60865 is classified as Low sensitivity.

AQUATIC BIODIVERSITY COMPLIANCE STATEMENT: PROPOSED WAREHOUSES AND ASSOCIATED INFRASTRUCTURE WITHIN THE EL IDZ.

Erf 60847

QUATIC BIODIVERSITY THEME SENSITIVITY



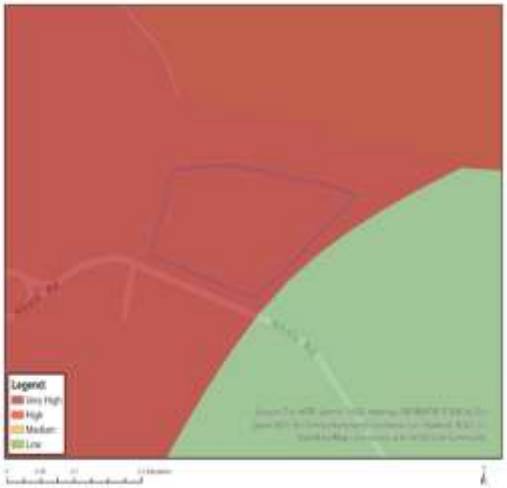
Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	SWSA (sw)_Amatholo

Erf 60859

ATIC BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	SWSA (sw)_Amatholo

Erf 60861

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY



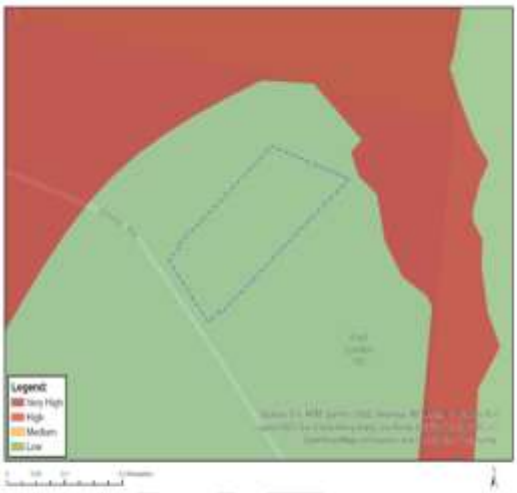
Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Very High	SWSA (sw)_Amatholo

Erf 60863

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

Erf 60865

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY



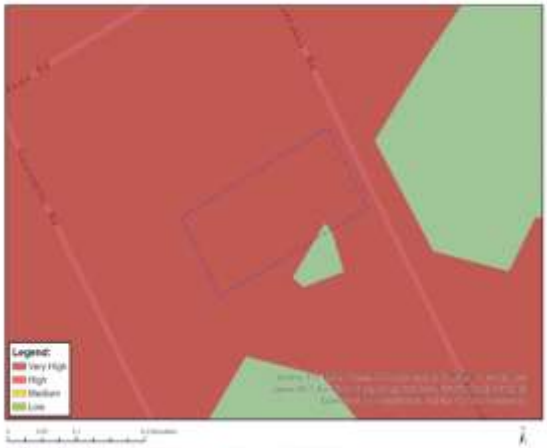
Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

Erf 60932

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Very High	ESA 1
Very High	SWSA (wl_Amathole

Erf 60933

ATIC BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Very High	ESA 1
Very High	SWSA (wl_Amathole

Erf 60934

TIC BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity
Very High	ESA 1

Figure 2. Aquatic Biodiversity Theme sensitivity

2. METHODOLOGY

The protocols specified in GN 320 (Protocol for the specialist assessment and minimum report content requirements for environmental impacts on aquatic biodiversity) of the National Environmental Management Act (NEMA; Act No. 107 of 1998), assessment and reporting requirements for aquatic biodiversity are associated with a level of environmental sensitivity identified by the national web-based environmental screening tool (screening tool).

An applicant intending to undertake an activity identified in the scope of this protocol on a site identified by the screening tool as being of:

- **Very High** sensitivity for aquatic biodiversity, must submit an **Aquatic Biodiversity Specialist Assessment**; or
- **Low** sensitivity for aquatic biodiversity, must submit an **Aquatic Biodiversity Compliance Statement**.

According to the protocol, prior to commencing with a specialist assessment a site sensitivity verification must be undertaken to confirm the sensitivity of the site as indicated by the screening tool:

- Where the information gathered from the site sensitivity verification differs from the screening tool designation of **Very High** aquatic biodiversity sensitivity, and it is found to be of a **Low** sensitivity, an **Aquatic Biodiversity Compliance Statement** must be submitted.

- Similarly, where the information gathered from the site sensitivity verification differs from the screening tool designation of **Low** aquatic biodiversity sensitivity, and it is found to be of a **Very High** sensitivity, an **Aquatic Biodiversity Specialist Assessment** must be submitted.

The determination of the site sensitivity relied upon the following approaches:

1. Description of the receiving environment and

- Mucina and Rutherford (2006) developed the National Vegetation Map (VegMap).
- National Biodiversity Assessment Synthesis Report (South African National Biodiversity Institute (SANBI), 2019)
- National List of Ecosystems that are Threatened and in Need of Protection (GN 1002 of 9 December 2012).
- Department of Water Affairs and Forestry (DWAF) (2008): A practical Guideline Procedure for the Identification and Delineation of Wetlands and Riparian Zones.
- Classification System for Wetlands and other Aquatic Ecosystems in South Africa. User Manual: Inland systems (Ollis et al., 2013)

2. Interrogation of available desktop resources including:

    - DWS spatial layers;
    - National Freshwater Ecosystem Priority Areas (NFEPA) spatial layers (Nel et al., 2011);
    - National Wetland Map 5 and Confidence Map (CSIR, 2018)
    - Eastern Cape Biodiversity Conservation Plan (ECBCP) (2019)

3. Identification of impacts and mitigations

3. RECEIVING ENVIRONMENT

3.1 TOPOGRAPHY AND HYDROLOGY

The area features moderately undulating terrain, with steeper slopes around elevated rocky ridges formed by diabase dykes and sills. The site ranges in 0-152m AMSL above sea level elevation. The ELIDZ falls within the Mzimvubu- Tsitsikamma Water Management Area, within R40A quaternary catchment. The R40A catchment area falls within the Eastern Coastal Belt Ecoregion (31.02) Level 2 Ecoregion. Two rivers, namely the Mvubukazi River and an unnamed river, occur along the western and eastern sides of the ELIDZ, respectively. In addition, a small unnamed stream is located between Sites 1 and 2, draining towards the coastline.



Figure 3. Existing surface water bodies in relation to the proposed development sites

3.2 CLIMATE

The climate within the ELIDZ area is typically mild, characterized as warm temperate and humid. Temperature variations in East London are relatively limited, largely due to the moderating effect of the warm Agulhas current along the coastline. The region experiences a summer rainfall pattern, with the

highest rainfall occurring between September and January. On average, East London receives approximately 530mm of rainfall annually, with mean maximum temperatures around 24°C and average minimum temperatures of about 14°C (CES, 2025).

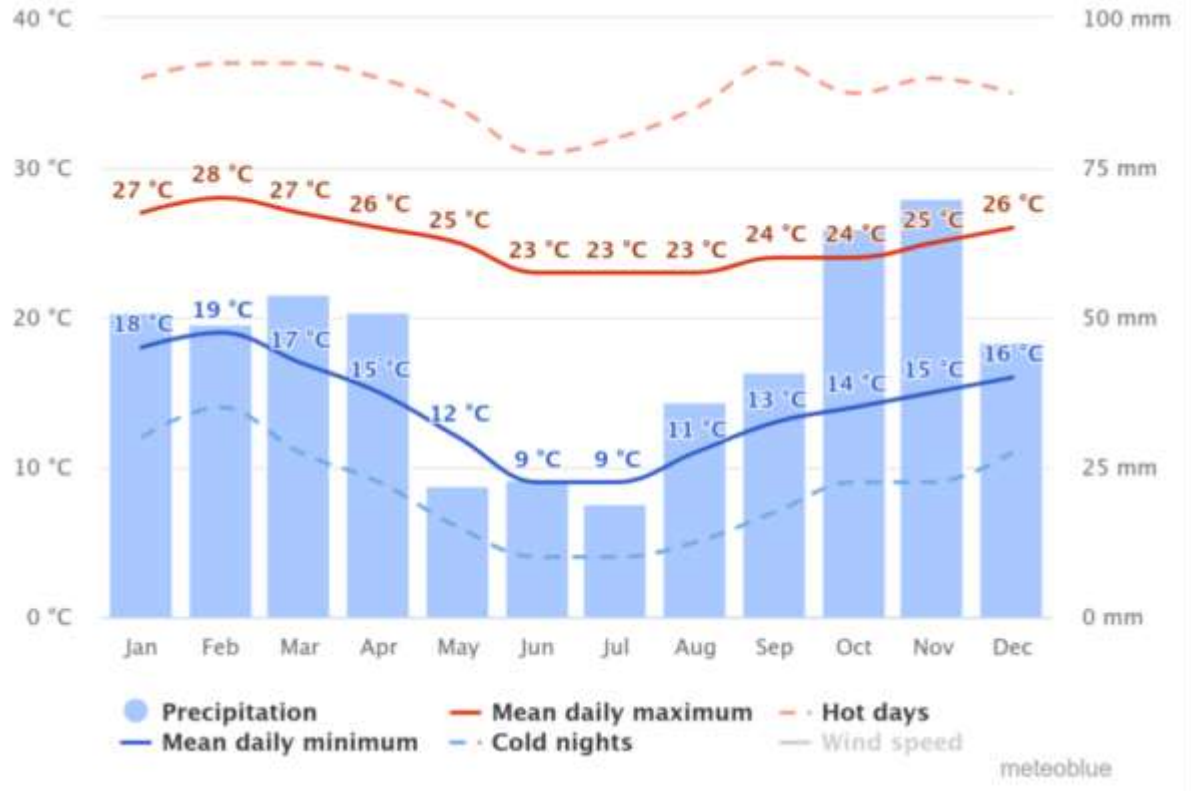


Figure 4. Average annual climatic conditions for greater East London Area (www.meteoblue.com)

3.3 GEOLOGY AND SOILS

The geology of the development area is dominated by the Middleton formations of the Adelaide Subgroup (Beaufort Group, Karoo Supergroup) and is intruded by dolerite dykes and sills (Bulter, 2024; Mamford, 2025). This geology influences the development of predominantly loamy soils with notable variability, including dolerite clays, grey sandy loams, intra-zonal soils, and soils associated with drainage lines, generally reflecting moderate to high nutrient content. The soils within the ELIDZ are generally derived from underlying mudstones, sandstones, and dolerite intrusions, resulting in a mix of soil types across the area. The substrate is primarily loamy soils, but there is significant variability. The geology of the area has a significant effect on the process of soil formation. Generally, the soils found within the ELIDZ area include dolerite clays, grey sandy loam soils, intra-zonal soils and soils associated with water courses (CES, 2025).

3.4 VEGETATION

According to South African National Biodiversity Institute (SANBI) vegetation map (VegMap,2018) the proposed sites falls within the Hamburg Dune Thicket (see **Figure 5**). This vegetation type falls under the Albany Thicket and is found primarily along the Eastern Cape coastline. This coastal vegetation typically occurs on aeolian substrates, as well as in fire- and frost-protected valleys that extend inland for a short distance from river mouths along the coast (TerraMare Archaeology, 2025). The Hamburg Dune Thicket is classified as **Least Concern.**

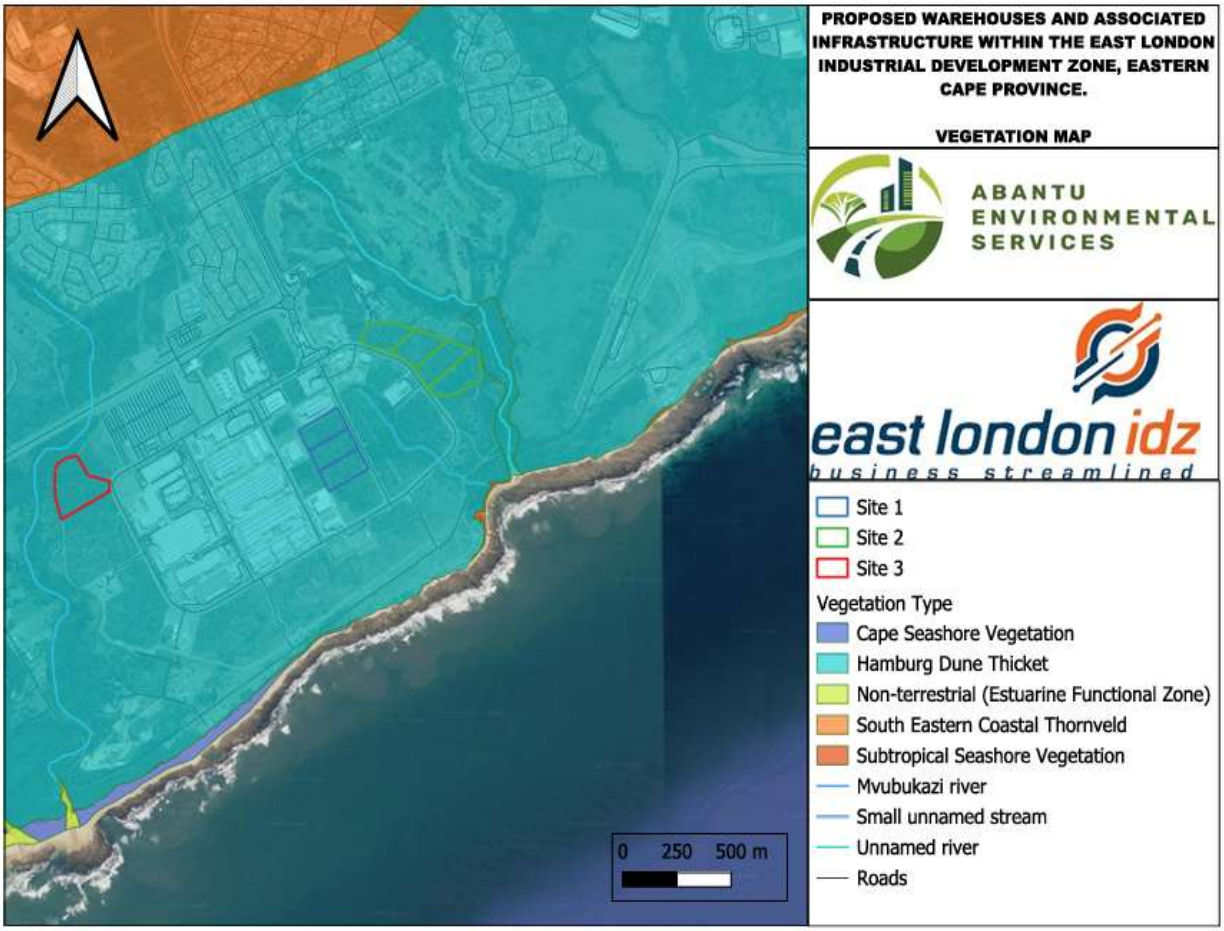


Figure 5. Vegetation Map

3.5 BIODIVERSITY CONSERVATION PLANS- EASTERN CAPE BIODIVERSITY CONSERVATION PLAN, 2019

The Eastern Cape Biodiversity Conservation Plan (ECBCP) (2019) replaces the ECBCP (2007) in its entirety and provides a map of important biodiversity areas, outside of the Protected Areas network, which must be used to inform land use and resource-use planning and decision making. The objectives of the ECBCP (2019) are to:

1) Identify the minimum spatial requirements needed to maintain a living landscape that continues to support all aspects of biodiversity and retain/maintain essential ecological infrastructure. This is achieved through the selection of areas, based on achieving targets, which represent important biodiversity pattern AND ecological processes;

2) Serve as the primary source of biodiversity information for land use planning and decision making; and

3) Inform conservation and restoration action in important biodiversity areas.

The aim of the ECBCP (2019) was to map biodiversity priority areas through a systematic conservation planning process. The main outputs of the ECBCP include Protected Areas (PA), Critical Biodiversity Areas (CBA), Ecological Support Areas (ESA), Other Natural Areas (ONA) and No Natural Habitat Remaining (NNR) for both terrestrial and aquatic ecosystems. The ECBCP (2019) has been adopted by DEDEAT as a systematic biodiversity plan for the Eastern Cape Province.

According to the ECBCP (2019), site 2 is located within aquatic ESA 1 and sites 2 and 3 fall within Other (see **Figure 6**).



Figure 6. Aquatic Biodiversity Map

3.6 NATIONAL FRESHWATER ECOSYSTEM PRIORITY AREAS (NFEPA)

The Atlas of Freshwater Ecosystem Priority Areas in South Africa (Nel et al, 2011a) (The Atlas) which represents the culmination of the National Freshwater Ecosystem Priority Areas project (NFEPA), a partnership between SANBI, CSIR, WRC, DEA, DWA, WWF, SAIAB and SANParks, provides a series of maps detailing strategic spatial priorities for conserving South Africa's freshwater ecosystems and supporting sustainable use of water resources.

Freshwater Ecosystem Priority Areas (FEPA's) were identified through a systematic biodiversity planning approach that incorporated a range of biodiversity aspects such as ecoregion, current condition of habitat, presence of threatened vegetation, fish, frogs and birds, and importance in terms of maintaining downstream habitat. The Atlas incorporates the National Wetland Inventory (NWI Wetlands) (SANBI, 2011) to provide information on the distribution and extent of wetland areas. River, wetland and estuarine FEPAs should be regarded as significant water resources and should be regarded as ecologically important and as generally sensitive to changes in water quality and quantity, owing to their role in protecting freshwater ecosystems and supporting sustainable use of water resources.

According to the NFEPA datasets the development sites do not overlap any FEPA rivers or wetlands (see **Figure 7**).

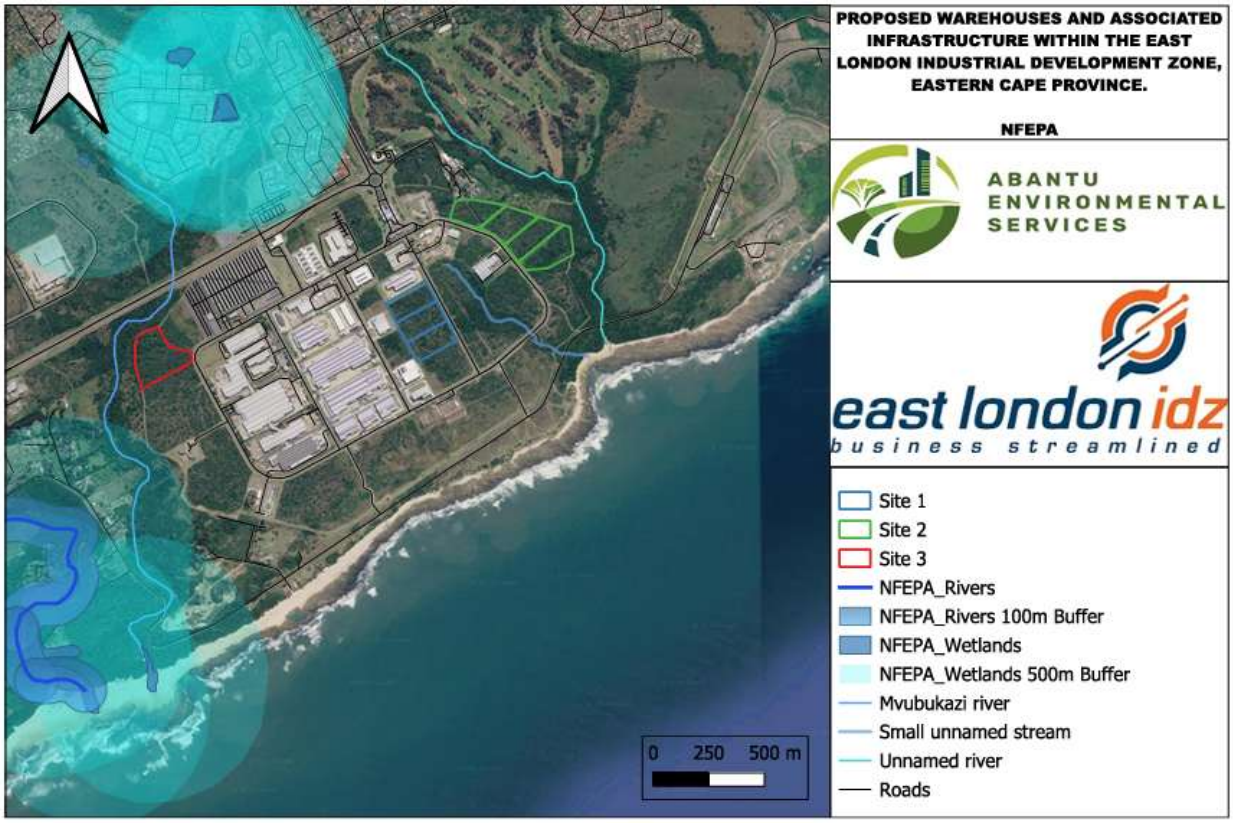


Figure 7. NFEPA Map

3.7 NATIONAL WETLAND MAP 5 (NWM5)

The National Wetland Map version 5 (NWM5) shows the distribution of inland wetland ecosystem types across South Africa and includes estuaries and the extent of some rivers. A confidence map was compiled to identify areas where wetland extent and hydrogeomorphic (HGM) units (which contributed to defining the inland wetland ecosystem types together with the regional setting) attained at a higher level of certainty compared to other areas.

Higher levels of certainty are associated [code 5 in field Confidence_nr] with areas that have been visited in field by a wetland specialist(s) over multiple seasons and cycles of the wetland hydroperiod and are therefore more accurately represented in the dataset. Codes 4 to 1 indicate lower levels of confidence that the extent and HGM unit are represented well.

According to the National Wetland Map Version 5 (NWM5), no inland wetlands are mapped within the proposed development sites. However, a micro-estuary is mapped in close proximity to Site 2 (see **Figure *8***).



Figure 8. National Wetland Map

3.8 SURFACE WATER STRATEGIC WATER SOURCE AREA (SWSAS, 2017)

Strategic Water Source Areas (SWSAs) are now defined as areas of land that either: (a) supply a disproportionate (i.e. relatively large) quantity of mean annual surface water runoff in relation to their size and so are considered nationally important; or (b) have high groundwater recharge and where the groundwater forms a nationally important resource; or (c) areas that meet both criteria (a) and (b). They include transboundary Water Source Areas that extend into Lesotho and Swaziland. All surface water SWSAs are located in high rainfall areas where baseflow is at least 11 25 mm/a, which is evidence of a strong link between groundwater and surface water in the SWSAs. The aquifers sustain baseflow, contribute to runoff and, especially, contribute to dry season flows. Sustained river flows are important as they support people and communities who depend directly on rivers for their water, especially during the dry season and droughts.

The proposed development sites fall within the Amathole Strategic Water Source Area (see **Figure 9**).



Figure 9. SWSA Map

3.9 SITE ASSESSMENT

No natural aquatic ecosystems (rivers or wetlands) were observed within the development sites during the field assessment. The sites are predominantly vegetated, consisting of dense shrub vegetation, scattered trees and grasses. Existing unpaved access tracks and fencing were also observed at the proposed sites.

Table 5. Site assessment

Photographs	Description
Site 1	
 	The site is characterised by dense shrub vegetation interspersed with grasses. An existing unpaved access track is visible along the site boundary.
Site 2	

		The site is covered by dense shrub vegetation with patches of tall grasses.
Site 3		

		The site is characterised by dense shrub vegetation interspersed with grasses. An unpaved pathway is visible adjacent to the boundary of the site.

4. MOTIVATION FOR SUBMISSION OF A COMPLIANCE STATEMENT

The National Web-based Environmental Screening Tool classified the aquatic biodiversity theme for Erf 60847, Erf 60859, Erf 60861, Erf 60932, Erf 60933 and Erf 60934 as **Very High** sensitivity, with mapped sensitivity features including aquatic ESA 1 and SWSA (sw)_Amathole. The aquatic biodiversity theme for Erf 60863 and Erf 60865 is classified as Low sensitivity.

Based on a desktop analysis as well as a field assessment, no wetlands or watercourses were identified within the proposed development sites. Furthermore, according to the NFEPA dataset, no FEPA rivers or wetlands are mapped within 100 m and 500 m of the proposed development sites, respectively. However, three watercourses were identified outside the site boundaries, namely the unnamed river located east of Site 2, the Mvubukazi River located west of Site 3, and a small unnamed stream situated between Sites 1 and 2, with a small portion of Site 3 extending into the 100 m regulated area of the adjacent watercourse (see **Figure *10***). In addition, a wetland was identified outside the proposed development sites, with a portion of site 1 falling within the regulated 500m buffer. Although a portion of the site falls within this buffer, the area is neither topographically nor hydrologically connected to the wetland. Therefore, no impacts on the wetland are anticipated. Based on the 100m buffer for the watercourses any development that occurs within the buffer would be of Very high sensitivity, thus, must be avoided in particular a small portion of site 3, while areas outside of the buffer within the development footprints would be considered of Low sensitivity.

No direct impacts on the identified watercourses are anticipated. However, potential indirect impacts may arise from increased surface runoff associated with the increase of impermeable surfaces, as well as erosion and sedimentation during construction activities. With the implementation of appropriate stormwater management and erosion control measures significant adverse impacts on the watercourses are not anticipated.

In light of the above, a Low sensitivity rating for Aquatic Biodiversity in the study area is therefore motivated in accordance with the applicable protocol. A full assessment will therefore NOT be required.

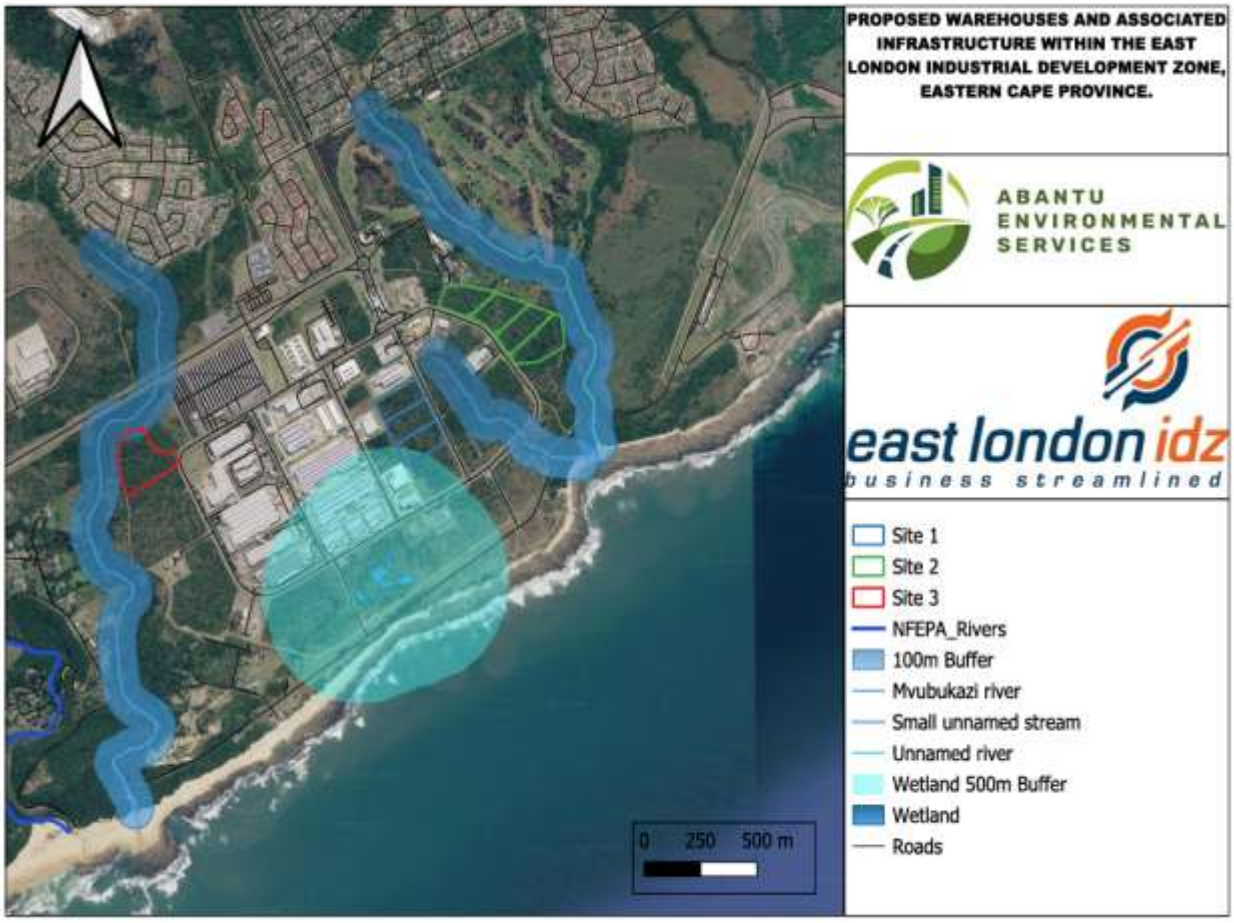


Figure 10. Regulated water areas of nearby aquatic features

5. CONCLUSION

Although the proposed development sites fall within mapped aquatic ESA 1 and the Amathole SWSA, no wetlands or watercourses were identified within the sites. Identified watercourses and wetlands around the development areas will not be impacted by the development. The small portion of site 3 which falls within 100m of the Mvubukazi watercourse must be avoided. With the implementation of appropriate mitigation measures significant adverse impacts on surrounding aquatic ecosystems are not anticipated. Therefore, the proposed development is not considered to be Fatally Flawed, and no components of the proposed project have been identified as flawed, such that it is the opinion of the Specialist that a positive Authorisation be issued, subject to the implementation of the recommended mitigation measures.

5.1 MITIGATION MEASURES

The proposed development is not anticipated to result in significant impacts however the following measures are recommended to avoid/minimize potential indirect impacts from the proposed development:

- Minimise vegetation clearance and confine to the infrastructural footprint.
- The site 3 area encroaching into the 100m regulated water area should be a no-go / no development area, falling under the area allocated as open space.
- Appropriate stormwater management measures must be implemented to manage surface runoff form the sites
- Erosion and sediment control measures must be implemented during construction phase.
- Site camps and laydown areas should be located outside the100m buffer from a watercourses.
- Disturbed areas should be rehabilitated and revegetated with similar indigenous vegetation once construction has been completed.

6. REFERENCES

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South African National Biodiversity Institute (bgis.sanbi.org).