

**DRAFT**

**BASIC ASSESSMENT REPORT  
DEVELOPMENT OF RESIDENTIAL INFRASTRUCTURE WITHIN  
32M OF TWO WATERCOURSES IN THE WESTERN PORTION OF  
SEATON ESTATE (“LALELA” PRECINCT)  
KWADUKUZA MUNICIPALITY  
DC29/0021/2022**



**31<sup>st</sup> AUGUST 2022**

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**AUTHOR OF REPORT**

This Basic Assessment Report was compiled by Stephanie Denison from Confluence Strategic Development (Pty) Ltd. A full curriculum vitae of the author is provided under Appendix A as well as a Declaration of Independence. A copy of the Pre-Application Meeting Minutes has also been included under Appendix A. Contact details for the Environmental Assessment Practitioner (EAP) are provided in the table below:

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The EAP confirms that:

- a) All information contained in the Basic Assessment Report is, to the best of my knowledge, accurate and correct.
- b) Comments and input from stakeholders and registered Interested and Affected Parties have been included in the Basic Assessment Report.
- c) Input and relevant recommendations contained in the attached specialist reports have been included in the Basic Assessment Report and Environmental Management Programme.
- d) All relevant, available information has been provided to registered Interested and Affected Parties; and
- e) Responses to comments or inputs made by registered Interested and Affected Parties has been included under Appendix D.



Stephanie Denison

15<sup>th</sup> August 2022

## EXECUTIVE SUMMARY

Sherpa Trade and Invest 31 (Pty) Ltd are the holders of two valid Environmental Authorisations for the development of 484 single residential erven and 6.5 hectares of PUD sites within the western portion of Seaton Estate (known as the "Lalela" Precinct). Approximately 5 hectares of residential infrastructure has been authorised within 32m of watercourses in the Lalela Precinct. A small area in the centre of the Lalela Precinct has never previously been assessed for development. Sherpa Trade and Invest 31 (Pty) Ltd propose to develop thirteen (13) residential units and associated infrastructure (4 505m<sup>2</sup>) within this central portion. Development will take place within 32m of wetlands triggering Activity 12 of Listing Notice 1 of the EIA Regulations 2014, as amended. A separate application for Environmental Authorisation is therefore required for the thirteen residential erven. The residential infrastructure is proposed on Portions 143 and 185 of Farm Lot 69 No. 917, KwaDukuza Local Municipality, iLembe District.

The proposed development is located proximal to Salt Rock and Sheffield Beach, two well-established residential suburbs. The thirteen residential units are in line with the surrounding, authorised development footprint and design that is already authorised within this portion of the estate. Minor adjustments have been made to the layout based on recommendations received by the wetland specialist and comments received by the adjacent landowner during the public consultation phase of previous applications. As such, all property boundaries have been shifted out of the recommended 15m wetland buffer. Due to the steeper topography, residential units on the southern side of the ridge will be constructed 25m away from the wetland. No loss of wetland will occur.

The following provides a summary of the key findings of the Environmental Impact Assessment:

- The thirteen additional residential units will see an increase in infrastructure within 32m of wetlands within the greater Seaton Estate. The prescribed wetland buffer will mitigate much of the anticipated impacts on wetlands. Provided the buffers are maintained and measures provided within the EMPr are implemented, the impact on wetlands has been reduced to a *low* level of significance.
- General construction related impacts associated with the construction phase can be managed to a *low* level of significance, provided all the measures contained in the EMPr are adhered to.
- The cumulative impact on services (traffic, water, sewer and electricity) has previously been assessed holistically for the greater Seaton West, which took into account the proposed thirteen additional residential units. Provided the necessary services are implemented, as stated in the respective services reports attached under Appendix B, there will be sufficient capacity of services for the entire Seaton West development.
- An increase in hard surfaces on site. This has the potential to alter the local hydrological regime having an indirect impact on the downstream watercourses. Through the implementation of specific engineering designs associated with the site-specific SWMP and the maintenance of the respective wetland buffers, the ecologist concludes that the increased hard panning will have "*little significant ecological impact*"<sup>1</sup>. Annual water quality samples will be collected from HGM 1 & 3 to monitor water quality leaving Seaton West during the operation of the Estate.
- The proposed layout sees a 0.45 hectare decrease in the Open Space System that was originally provided for in this area of Seaton West. Taking into consideration the low ecological value of the terrestrial habitat forming the open space and the proposed rehabilitation plan, the decrease in open space has been rated as having "*very low*" significance and is considered a minor impact on local flora and fauna.

All impacts identified in the Environmental Impact Assessment can be mitigated to a *low* to *very low* level of risk. This is provided that the measures included in the attached EMPr are adhered to. The Environmental Assessment Practitioner is therefore of the opinion that the development of residential infrastructure within 32m of two watercourses in the western portion of Seaton Estate (Lalela Precinct), be authorised by EDTEA.

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<sup>1</sup> Executive Summary of the SDP "Ecological Assessment" attached under Appendix C.

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## 1.0 INTRODUCTION

### 1.1 PROJECT BACKGROUND

Sherpa Trade & Invest 31 (Pty) Ltd are the holders of two valid Environmental Authorisations for development in the western portion of Seaton Estate:

- The original Environmental Authorisation for Seaton Estate was granted in 2005 (EIA/4951; area outlined in green in Figure 1). This Environmental Authorisation excluded Portion 143 of Farm Lot 69 No. 917, which was only purchased by Sherpa Trade & Invest 31 in 2018.
- Portion 143 of Farm Lot 69 No. 917 underwent a separate Environmental Impact Assessment and the property was incorporated into Seaton Estate. Environmental Authorisation was granted for the clearance of indigenous vegetation and the development of residential erven on Portion 143 of Farm Lot 69 No. 917 in 2020 (DC29/0009/2019; authorised development footprint shaded in yellow in Figure 1).

The DC29/0009/2019 Environmental Authorisation does not authorise any residential infrastructure within 32m of watercourses in this portion of the Estate. A new application for Environmental Authorisation is therefore required to specifically assess the development of residential infrastructure within the 32m regulated area in this section of the Estate. Thirteen additional residential erven are proposed within the western portion of Seaton Estate; known as the “Lalela” precinct. The thirteen additional residential erven are shaded in red in Figure 1.

Figure 2 provides the currently authorised layout for the Lalela precinct (484 residential erven and 6.5 hectares of PUD sites) with the thirteen residential erven still to be authorised outlined in red. The area outlined in red in Figure 2 is the area applicable to this application.

### 1.2 DESCRIPTION OF ACTIVITY TO BE UNDERTAKEN

Sherpa Trade and Invest 31 (Pty) Ltd propose to develop thirteen (13) residential units and associated infrastructure, within 32m of two wetlands in the western portion of Seaton Estate, which forms part of the “Lalela” precinct (Erven labelled 1, 3, 4, 10, 11 18, 19, 44, 45, 52, 79, 80 & 89 in the AF Planning & Chris Krause Land Surveyors Layout Plan attached under Appendix C).

A total of 4 505m<sup>2</sup> of new residential infrastructure is proposed within 32m of the watercourses on Portions 143 and 185 of Farm Lot 69 No. 917, KwaDukuza Local Municipality, iLembe District (footprint shaded in yellow in Figure 3). The infrastructure proposed includes residential units (single storey) and sewer, stormwater and water pipelines (see layout attached under Appendix C).

The additional residential units will result in 680m<sup>2</sup> of infrastructure being developed within 25m of a hillslope wetland (outlined in red in Figure 3), and 3 825m<sup>2</sup> of infrastructure being developed within 15m of a valley head seep wetland (outlined in green in Figure 3). A total of 4 505m<sup>2</sup> of new residential infrastructure will therefore be developed within 32m of watercourses, triggering Activity 12 of Listing Notice 1 of the EIA Regulations 2014, as amended. The listed activity being applied for is provided in Table 1.

**Table 1: Listed and Specified Activity Triggered and Being Applied for.**

Activity #	Relevant Listing Notice	Description of Listed Activity as Per the Project Description
12 (ii) (c)	Listing Notice 1 (GNR327) 04th December 2014 as amended.	The development of 4 505m <sup>2</sup> of new residential infrastructure will be constructed within 32m of wetlands.

Figure 1: Western Portion of Seaton Estate Applicable to the DC29/EIA/4951/2005/AMEND/2018/2020/2021 Environmental Authorisation (Green), the DC29/0009/2019/AMEND/2021 Environmental Authorisation (Yellow) and the Thirteen (13) Residential Erven That Are Subject to a Separate Environmental Authorisation Due to Their Location within the 32m Regulated Area (Red).

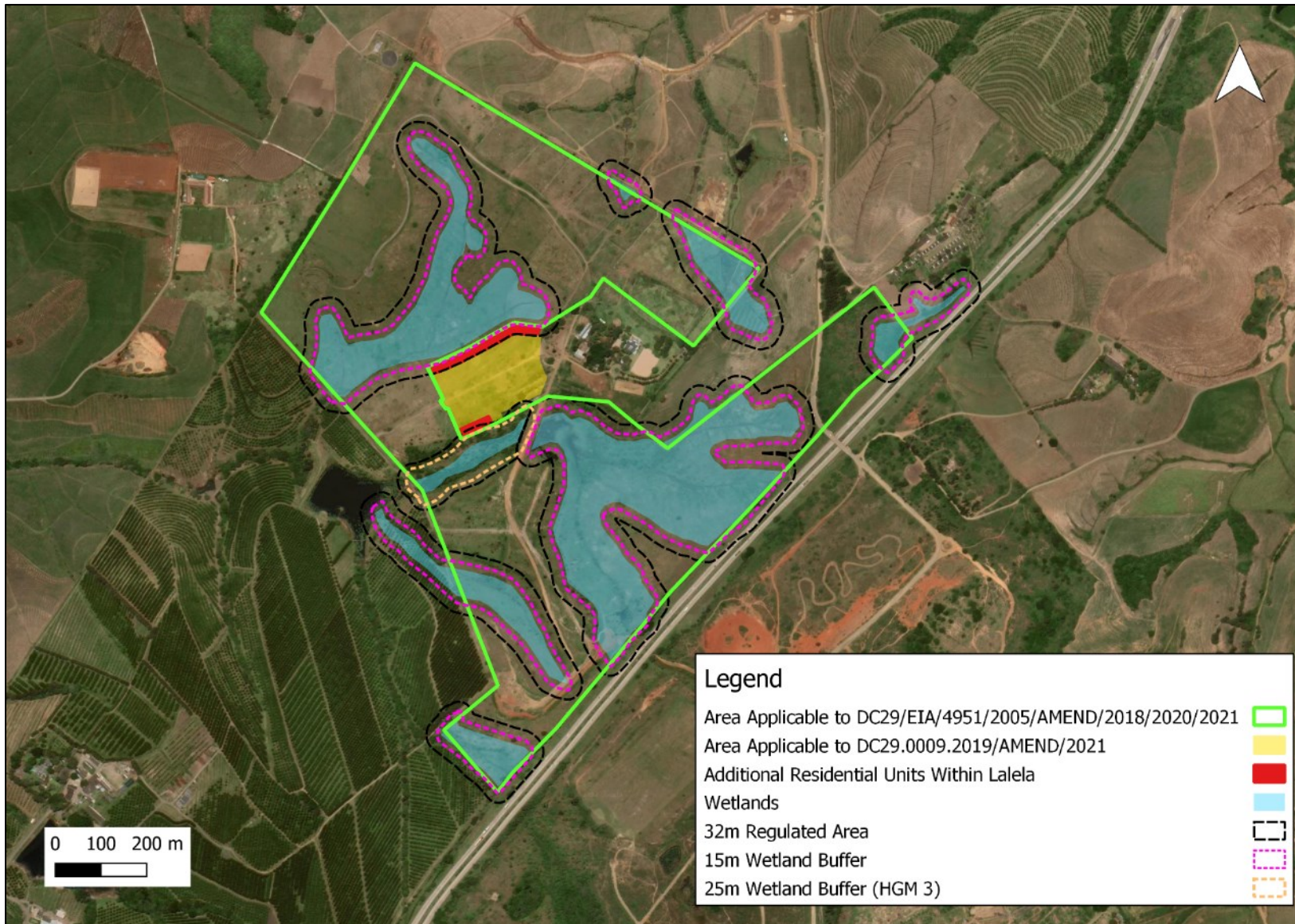




Figure 2: Location of the Thirteen Residential Erven Within Seaton West Which are Subject to a Separate Environmental Authorisation, Outlined in Red. All other erven are authorised under DC29/0009/2019/AMEND/2021 and DC29/EIA/4951/2005/AMEND/2018/2020/2021 (Source: AF Planning and Chris Krause Land Surveyors; 2021)

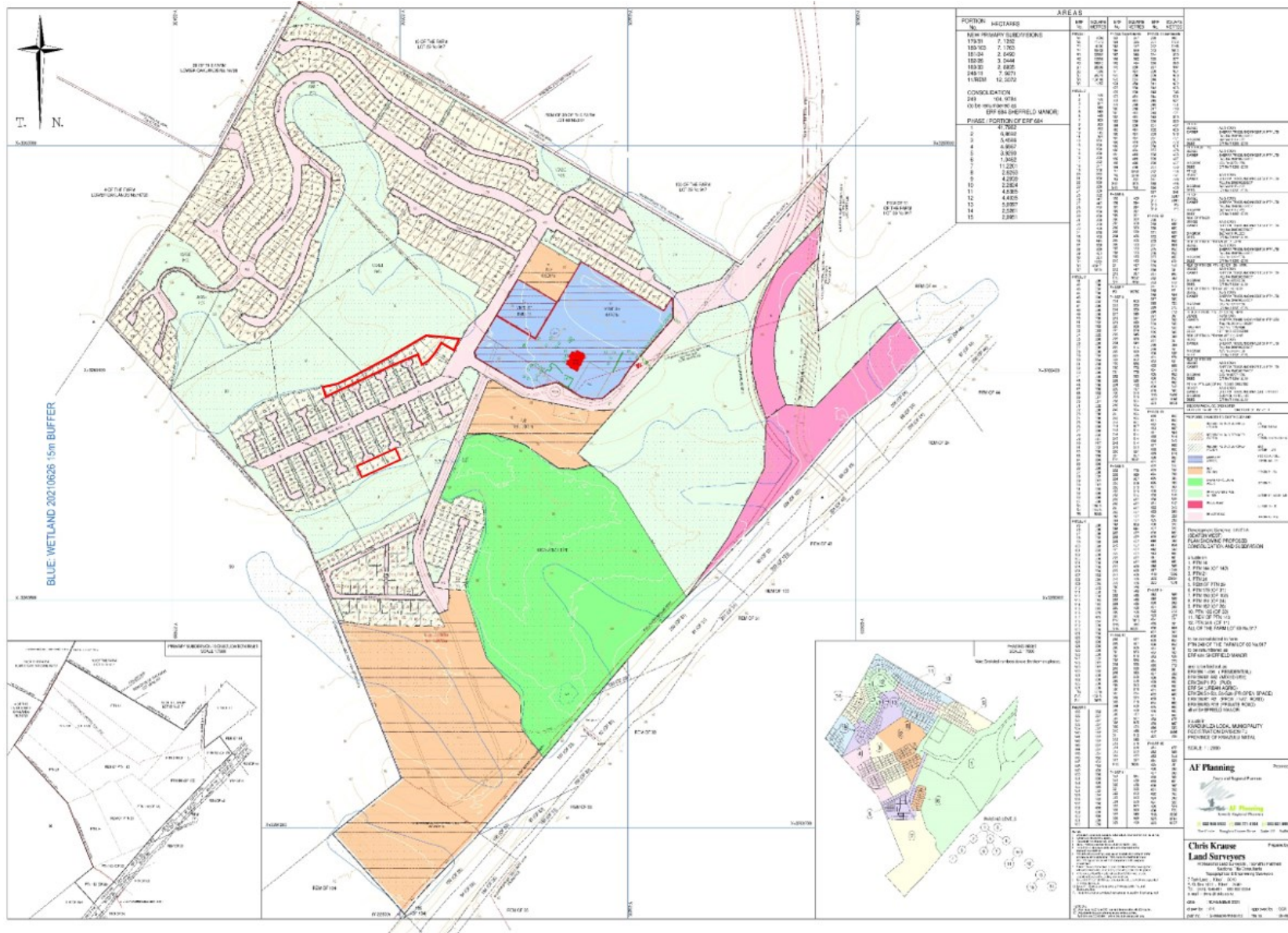
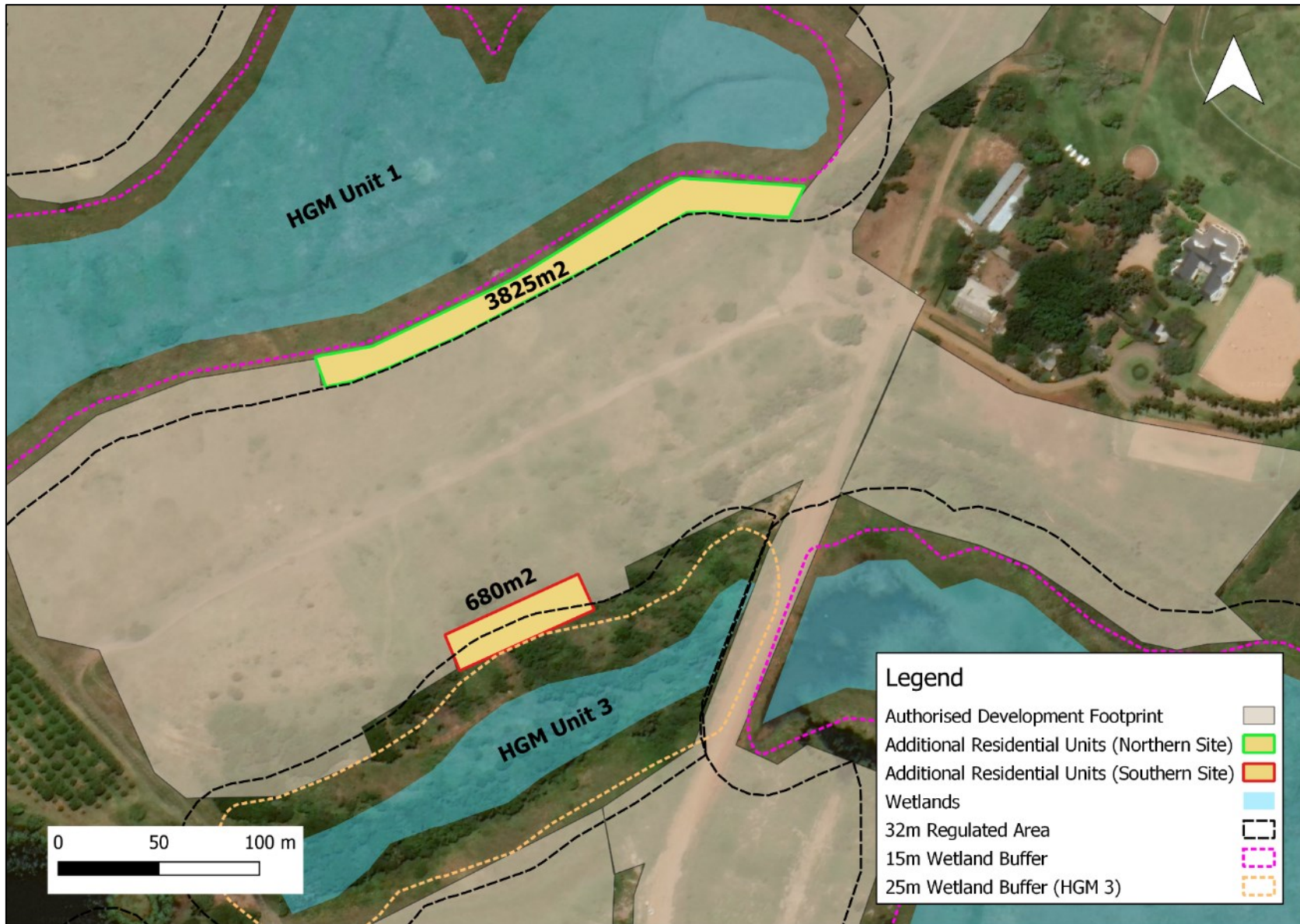


Figure 3: Layout Showing the Footprint of the Thirteen (13) Residential Erven That Are Subject to a Separate Environmental Authorisation Due to Their Location within the 32m Regulated Area. The Proposed Activity and Associated Infrastructure Are Shown in Relation to the Environmental Sensitivities within the Site.



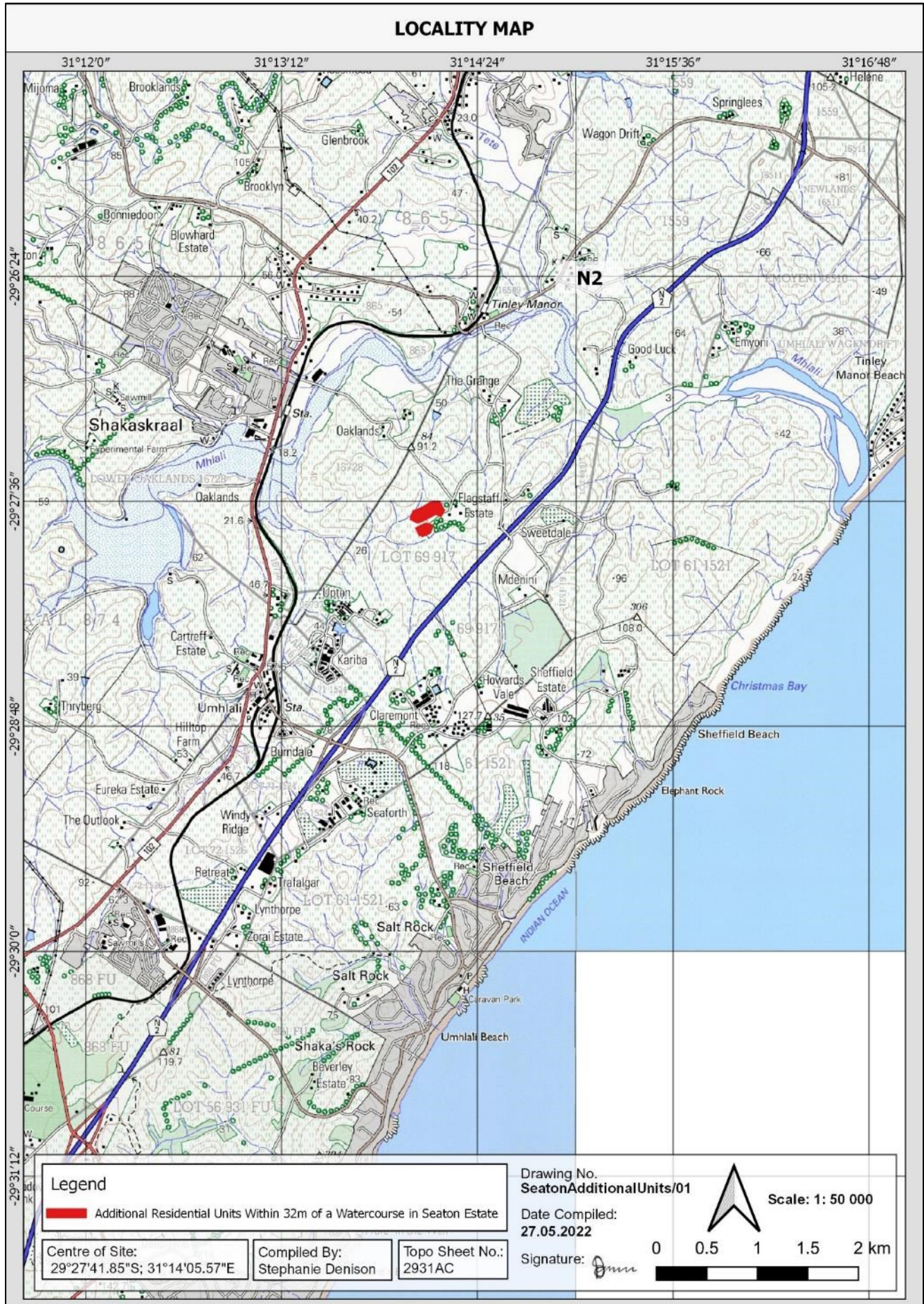


**1.3 LOCATION OF ACTIVITY**

Seaton Estate is a residential development located in Sheffield Manor, north of Salt Rock. This application is applicable to the western portion of Seaton Estate, referred to as the “*Lalela*” precinct and is located in Ward 20 of the KwaDukuza Local Municipality, iLembe District (centre of site: 29°27'42.25"S; 31°14'7.07"E). Please refer to Figure 4 for the Locality Map.

21 Digit Surveyor General codes	Northern Sites: NOFU00000000091700185  Southern Sites: NOFU00000000091700143
Property Descriptions	Northern Sites: Portion 185 of Farm Lot 69 No. 917  Southern Sites: Portion 143 of Farm Lot 69 No. 917
Co-ordinates (Centre of Study Area)	29°27'42.25"S; 31°14'7.07"E

Figure 4: Locality Map with the Sites Indicated in Red.





## 2.0 ALTERNATIVES

### 2.1 DETAILS OF ALTERNATIVES CONSIDERED

“Alternatives” are defined as “different means of meeting the general purpose and requirements of the activity”<sup>2</sup>. Alternatives considered must be feasible and reasonable. The general purpose and requirement for this project is for the development of additional residential infrastructure within the western portion of Seaton Estate, which has been earmarked for secure, affordable housing in the Salt Rock / Sheffield Beach area.

#### 2.1.1 Site Alternatives and Outcome of the Site Selection Matrix

The proposed application is directly linked to the western portion of Seaton Estate and the existing authorised footprint. No other feasible site alternatives have therefore been considered.

#### 2.1.2 Activity

The proposed thirteen (13) residential units are aligned with the size and type of other residential erven already authorised in this area of Seaton Estate. No other feasible activity alternatives have therefore been considered in this area.


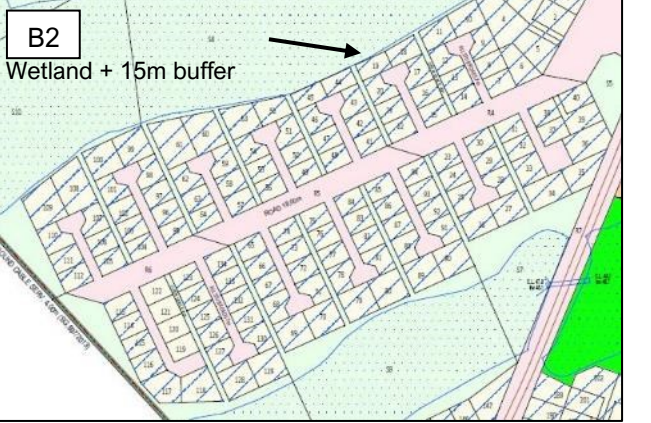
#### 2.1.3 Layout

The layout of the thirteen (13) erven was determined during previous environmental applications which took place in this area of Seaton Estate. Minor adjustments to the layout of the erven have been made based on recommendations received by the wetland specialist and comments received by the adjacent landowner during the public consultation phase of the previous applications. As shown in Table 2, property boundaries associated with the northern sites were originally proposed within the 15m wetland buffer. These areas were designated “no development servitudes”. The application of a no development servitude was not considered feasible due to the small size of the erven. All property boundaries have therefore been removed outside of the 15m wetland buffer associated with the northern residential erven. This is to ensure that earthworks do not extend into the buffer during the creation of the platforms.

The layout of the southern sites (three erven) has remained the same in all layouts previously considered as the extent of the property boundaries is based on the topography. All residential units will be constructed 25m away from the wetland.

From an environmental perspective, the minor adjustments that were made to the layout of the northern erven is not considered to be substantially different to the layout being presented and therefore only one layout alternative has been assessed (see layout attached under Appendix C).

**Table 2: Table Showing the Adjustment Made to the Layout of the Northern Sites.**

Previous Layout Proposed	Preferred Layout
	
<p><b>A “no development” servitude was originally proposed along some of the properties within 15m of the wetland (hatched in red in “A1” above). All property boundaries have been shifted further away from the wetland in the preferred layout (B2).</b></p>	

<sup>2</sup> DEA & DP (2010) Guideline on Alternatives, EIA Guideline and Information Document Series. Western Cape Department of Environmental Affairs & Development Planning (DEA&DP).

#### 2.1.4 Technology

All residential units within Seaton West, including the thirteen residential units applicable to this application, will be connected to the municipality waterborne sewerage reticulation network (section 5 of the Engineer Services Report). This technology is considered the most feasible and sensible approach from both an environmental and engineering perspective. As such, no other feasible technology alternatives for sewage disposal have been considered.

Notably, energy saving technologies have been incorporated into the design of the residential erven. This includes rainwater harvesting tanks for each of the free-standing residential units, provision for gas stoves and geysers as well as solar lighting / geysers. The additional residential units have included these new design technologies to reduce the pressure on existing services, with specific emphasis on reducing the electrical load requirements.

#### 2.1.5 No-Go Alternative

Residential infrastructure will not be constructed on the additional thirteen erven proposed within the Lalela precinct. Potential environmental impacts identified in the impact assessment section (section 6.0 of the Draft Basic Assessment Report) will not occur in this area, however will already be taking place on either side of the proposed developable area as part of the great Seaton West / Lalela development (Currently authorised under DC29/EIA/4951/2005/AMEND/2018/2020/2021 and DC29/0009/2019/AMEND/2021).

### 2.2 CONCLUDING STATEMENT INDICATING PREFERRED ALTERNATIVES

The thirteen (13) additional residential erven proposed in the Lalela Precinct of the Seaton Estate are subject to a separate application for Environmental Authorisation however have been previously considered when assessing the overall increase in density in this area of the Estate. The developable footprint associated with the thirteen erven are directly linked, and aligned with, Seaton West as well as the existing authorised activity and technology alternatives previously authorised in this area of the Estate. No feasible site, activity or technology alternatives have therefore been considered for further assessment. The layout being presented and assessed is compliant with specialist and engineering recommendations. It has also taken into consideration comments received from stakeholders during previous environmental assessments within Seaton West. Only the one layout alternative has therefore been assessed.

### 2.3 MOTIVATION FOR PREFERRED ALTERNATIVE

The development of an additional thirteen residential units within Seaton West has been assessed independently and holistically, taking into consideration the overall layout authorised for the Lalela Precinct. The following provides a summary motivating the preferred layout:

- The vegetation associated with the proposed new erven is described by the specialist as being “*highly transformed*” and “*dominated by exotic vegetation*”<sup>3</sup>. The ecologist considers the additional erven to have a “*minor additional impact on the receiving environment*”<sup>4</sup>.
- The recommended, and previously authorised, 15m wetland buffer has been maintained for the northern sites and a larger, 25m wetland buffer adopted for the southern sites. The larger wetland buffer is required to accommodate the steeper gradient associated with the southern sites.
- A site-specific SWMP has been developed by the engineers, using recommendations from the ecologist to
- ensure that stormwater is attenuated on the site before discharging into the valley lines / wetlands.
- The Wetland Rehabilitation Plan compiled for the Greater Seaton Estate has been attached to the Environmental Management Program (EMPr; Appendix E). The implementation of this plan will see the increase in extent and restoration of functionality of the wetland systems throughout the Lalela precinct.

## 3.0 PLANNING CONTEXT

### 3.1 ENVIRONMENTAL POLICY AND LEGISLATIVE CONTEXT

The table below provides a list of legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments relevant to the additional units in the western portion of Seaton Estate. The table includes comment on how the proposed development complies with and responds to the listed legislation.

<sup>3</sup> Executive Summary and Section 7.2 of the SDP “*Seaton West Ecological Assessment*” June 2021.

<sup>4</sup> Site-Specific Comment of the Ecological Impacts of the Additional Residential Infrastructure (SDP July 2022).



**Table 3: Legislation, Policies, Plans, Guidelines, Spatial Tools, Municipal Development Planning Frameworks, And Instruments Relevant to the Additional Units in the Western Portion of Seaton Estate.**

Legislation	Acronym	Comment
National Environmental Management Act (Act No. 107 of 1998 as amended).	NEMA	NEMA provides environmental management principles that are applicable across South Africa to fulfil section 24 of the Constitution, which is the right to “ <i>an environment that is not harmful to their health or wellbeing</i> ”. Section 24 of NEMA defines the activities requiring Environmental Authorisation and the processes to be followed to obtain Environmental Authorisation (published in the Environmental Impact Assessment Regulations, 2014 as amended). This application triggers Activity 12 in Listing Notice 1 of the Environmental Impact Assessment Regulations, 2014 as amended. A Basic Assessment process is therefore underway to obtain Environmental Authorisation prior to any activities commencing.
National Environmental Management: Waste Act (Act No. 59 of 2008 as amended).	NEM: WA	NEM: WA provides measures to protect health and the environment of South Africa by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development. There are no activities on site that trigger a Waste Management License however measures have been provided in the Environmental Management Programme (EMPr) to ensure that waste management is compliant with the requirements of NEM: WA during the construction and operation of the residential erven.
DEA (2017), Public Participation guideline in terms of NEMA EIA Regulations, DEA, Pretoria, South Africa.	-	To give effect to section 2 (4)(f) and (o) of NEMA, adequate and appropriate opportunity for public participation in decisions that may affect the environment is required. NEMA requires that any person conducting public participation take into account any relevant guidelines applicable to the public participation process as contemplated in section 24J of NEMA. The public participation conducted as part of the Basic Assessment process complies with the NEMA EIA Regulations and has considered the relevant guidelines.
DEA (2017), Guideline on Need and Desirability, DEA, Pretoria, South Africa.	-	This guideline contains information on best practice and how to meet the requirements prescribed by NEMA when considering the need and desirability of a development. The need and desirability of the project has considered the list of questions outlined in the Need & Desirability Guidelines.
National Environmental Management Biodiversity Act (Act No. 10 of 2004).	NEM: BA	To manage and conserve South Africa’s Biodiversity and protect species and ecosystems that warrant national protection. As per the findings of the Ecological Assessment, the site is highly transformed, and the vegetation is of low ecological significance. Wetland and drainage features, however, offer some ecological value. The recommended, and previously authorised, 15m wetland buffer has been adhered to. No development falls within the 15m buffer or within any wetland environment. The proposed development does not require any specific permissions in terms of NEM:BA however the landowner must comply with the requirements of the Alien and Invasive Species Regulations (2020) which have been published in terms of section 97(1) of NEM:BA. These regulations categorise invasive species and outlines the way these species must be controlled by landowners. Section 52 of NEMBA allows for the publication of a national list of ecosystems that are threatened and in need of protection. The property is located within the KwaZulu-Natal Coastal Belt Ecosystem which has been identified as “ <i>vulnerable</i> ” by the South African National Biodiversity Institute (SANBI).

National Environmental Management: Air Quality Act (Act No. 39 of 2004).	NEM: AQA	Regulates air quality to protect the environment by providing measures to prevent pollution and ecological degradation and for securing ecologically sustainable development. There are no activities on site that trigger an Air Emissions License however measures have been provided in the EMPr to ensure that air quality is managed in line with the requirements of NEM: AQA during the construction and operation of residential erven.
National Water Act (Act No. 36 of 1998) (as amended).	NWA	Provides for fundamental reform of the law relating to water resources. Infrastructure will be constructed within 500m of various watercourses. This area of Seaton Estate has been issued with a Water Use License (Licence No.: 11/U30E/ACI/10565; File No.: 27/2/1/U530/1/4/5/34). This Water Use License is applicable to the previously authorised layout and is in the process of being amended to accommodate the increase in density within the estate including the thirteen residential units applicable to this application.
National Forests Act (Act No. 84 of 1998).	NFA	To conserve and protect natural forests and woodlands as well as ensuring development with principles of sustainable management. The Department of Forestry Fisheries and Environment (DFFE) governs the removal, disturbance, cutting or damaging of protected tree species and natural forests. No natural forests or protected tree species will be impacted by the proposed development.
National Heritage Resources Act (Act No. 25 of 1999).	NHRA	For the management of national heritage resources and to nurture and conserve heritage resources so that they may be bequeathed to future generations. The study area has been largely transformed by long-term sugarcane farming. There is no existing infrastructure that will be impacted within the study area and therefore no structures with heritage or archaeological value. No graves are located on site. The property falls within a “high” palaeontological (i.e. fossils) sensitive area. A desktop Palaeontological Impact Assessment was therefore carried out and is attached under Appendix B. The findings of the report are summarised in section 4.0 below.
KwaDukuza Local Municipality Integrated Development Plan (2021 – 2026)	KDM IDP	The KwaDukuza SDF classifies the larger Sheffield Beach area as an area with <i>immediate development potential</i> . The proposed application is not in conflict with the densification principles contained in the SDF. A separate town planning application is underway ensuring the properties are correctly zoned to accommodate the increase in density.
iLembe District Municipality Integrated Development Plan (2021/2022 Review).	iLembe IDP	The larger Sheffield Beach is identified as an urban settlement zone. “ <i>Construction and Property Development</i> ” is one of the main economic sectors of iLembe Municipality identified in the IDP. The development is as per the principle listed under section 5.2.5.5 of the IDP: “ <i>Growth and development is to be consolidated to achieve appropriate densities and thresholds to support social infrastructure</i> ”. As above, a separate town planning application is underway and will motivate the rezoning to ensure that the development is aligned with the iLembe IDP

### 3.2 MOTIVATION FOR THE NEED AND DESIRABILITY

The Lalela Precinct of Seaton Estate has been earmarked for smaller, affordable, free-standing residential units with private gardens within a secure, gated estate. Environmental Authorisation is in place for the development of the Lalela Precinct except for the thirteen residential erven relevant to this application. The thirteen erven are no different to the type and style of the currently authorised residential erven in this area of the Lalela Precinct. The layout / placement of the erven is compliant with the environmental recommendations provided by the specialists and will be subject to the implementation of the greater Seaton Estate Wetland Rehabilitation Plan and Landscaping Code (both attached to the EMPr).

From an environmental perspective, the ecologist has indicated that the study area where the thirteen residential units are proposed is highly transformed by historic agricultural activities and existing equine facilities (paddocks,



grazing, etc.; Figure 7a). The ecological specialist further describes the floral diversity as having “*low ecological value and is largely secondary in nature. Much of the study area supports the presence of category 1b invasive exotic vegetation*”<sup>5</sup>. The boundaries of all erven are located outside of the 15m wetland buffer with the residential units associated with the southern sites located 25m from the edge of the wetland. This is as a result of the steeper gradient on this side of the ridgeline. The EMPr attached under Appendix E, although specific to the thirteen sites under assessment, contains the same impact management measures as those stipulated in the great Seaton Estate EMPr. This is to ensure that there is no confusion during the construction phase.

Taking the above into account, the additional residential units are considered an extension of the greater Lalela Precinct development and will not result in any additional negative impacts on the surrounding environment. This is provided that construction is managed in accordance with the EMPr. The broader societal needs (i.e. more affordable living opportunities in a fast developing area of the KwaDukuza Local Municipality) and public interest (confirmation of service capacity) have been considered in the proposed layout. The additional residential infrastructure are considered to be ecologically sustainable.

#### 4.0 ENVIRONMENTAL ATTRIBUTES

A report was generated by the national web-based environmental screening tool in terms of section 24(5)(h) of NEMA and Regulation 16(1)(b)(v) of the EIA Regulations, 2014 as amended. The Department of Environment, Forestry and Fisheries (DEFF) Screening Tool is attached under Appendix B. The Screening Tool identifies potential specialist assessments which may be required for the application. It is the responsibility of the EAP to confirm this list and to motivate the reason for not including any of the identified specialist studies.

It was confirmed during the pre-application meeting with EDTEA that specialist studies undertaken for previous assessments in this area of Seaton may be used for this application however an opinion from the wetland specialist must be provided specifically focussing on the area under assessment (see Environmental Comment letter provided by SDP dated July 2022 attached under Appendix B).

**Table 4: List of Specialist Assessments identified in the Department of Environment, Forestry and Fisheries Screening Tool Report.**

Specialist Assessment	Included in Appendix B	Motivation for Not Conducting Assessment
Landscape / Visual Impact Assessment	No	The size and type of proposed residential erven are similar to the authorised layout in this area of the estate. Properties on all boundaries of the study area will be developed in a similar manner and therefore a Visual Impact Assessment was not considered necessary.
Archaeological and Cultural Heritage Impact Assessment	Yes	A desktop Heritage Impact Assessment was conducted on the greater Seaton Estate in 2019. The findings of the Heritage Impact Assessment are summarised under section 4.5 of the Basic Assessment Report.
Palaeontology Impact Assessment	Yes	The property falls within a “ <i>highly sensitive</i> ” palaeontological area triggering a Palaeontological Impact Assessment. Since the area has been previously disturbed by farming activities, a desktop study was carried out and a Fossil Chance Find Protocol included in the EMPr. The findings of the Palaeontological Impact Assessment are summarised under section 4.5 of the Basic Assessment Report.
Terrestrial Biodiversity Impact Assessment	Yes	The terrestrial environment is largely transformed by agricultural activities and therefore a full Terrestrial Biodiversity Impact Assessment was not considered necessary. Comment on the vegetation and habitat associated with Seaton West has been provided under section 6.1 of the SDP “Ecological Impact Assessment” attached under Appendix B and summarised in section 4.0 below. In addition, a letter was provided by SDP

<sup>5</sup> Section 6.1 of the SDP “*Seaton West Ecological Assessment*” June 2021.

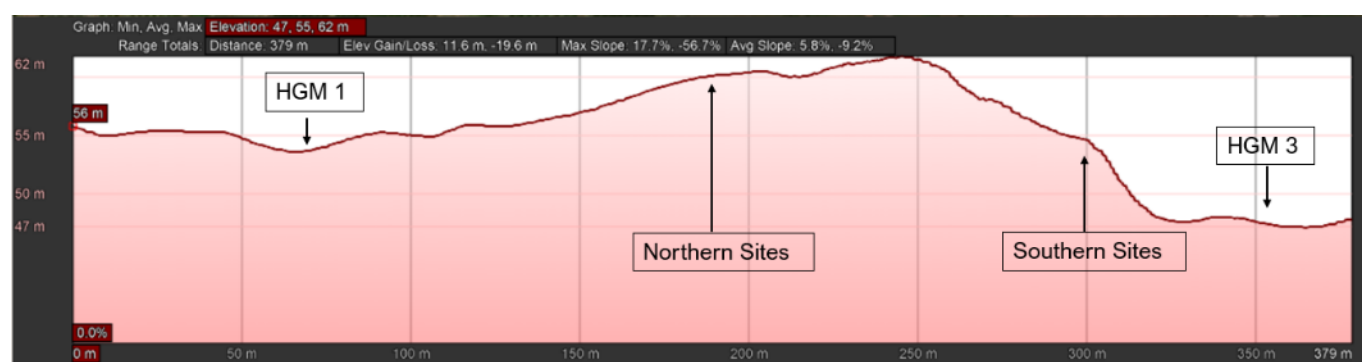
		confirming that the findings of the Ecological Impact Assessment conducted in 2021 are applicable to this application (also attached under Appendix B).
Aquatic Biodiversity Impact Assessment	Yes	An Ecological Impact Assessment, which considered aquatic environments, has been carried out by SDP and is attached under Appendix B of the BAR. In addition, a letter was provided by SDP confirming that the findings of the Ecological Impact Assessment are applicable to this application.
Hydrology Assessment	No	There are no perennial watercourses or aquatic systems impacted by the proposal. A Hydrological Assessment is not required.
Socio-Economic Assessment	No	The proposed additional residential erven will have a positive socio-economic impact on the surrounding area. A Socio-Economic Assessment was not necessary for this application.
Plant Species Assessment	Yes	As above, comment on the terrestrial environment, including a plant species list, has been provided by SDP in the Ecological Impact Assessment (section 6.1). In addition, a letter has been provided by SDP which lists the species encountered within the area applicable to this application.
Animal Species Assessment	No	Due to the transformed nature of the site, an animal species assessment was not considered necessary. The site does not fall within a Critical Biodiversity Area identified by Ezemvelo KZN Wildlife.

Information provided in the specialist assessments has been used to describe the receiving environment. All mitigation measures and recommendations provided by the specialists has been incorporated into the Assessment of Impacts Table under section 6.0. and the EMPr provided under Appendix E. All specialist assessments are attached under Appendix B.

#### 4.1 PHYSICAL CHARACTERISTICS OF THE SITE

The study area is located approximately 3.2km inland from Sheffield Beach, west of the N2 highway. The study area is located within the western portion of Seaton Estate and is located on a ridge, with wetland systems present below each slope. The northern sites are located on a gentle, north-western facing gradient, while the southern sites are on a steeper, south-eastern facing gradient (Figure 5).

**Figure 5: Elevation Profile of the Northern and Southern Sites in Relation to the Adjacent HGM Units (North-West to South-East; Google Earth Pro, 2022).**



#### 4.2 GEOGRAPHICAL ATTRIBUTES AND GEOLOGY

A Desktop Geotechnical Report for Seaton West was completed by Drennan Maud (Pty) Ltd in January 2004 and is attached under Appendix B. According to the findings of the Geotechnical Report, “the site is underlain by sands and clayey sands of the Berea Formation extending to depths of 30 metres below existing ground level”<sup>6</sup>. The sand and clayey sand of the Berea Formation is overlain by loose, fine and medium grained aeolian sand and associated colluvium varying in thickness between 1-3m on the upper and mid-slopes.

<sup>6</sup> Section 5.2 of the Drennan Maud (Pty) Ltd “Desktop Geotechnical Report” 2004.



As part of the Ecological Assessment carried out by SDP Ecological and Environmental Services (Appendix B), two distinct soil types were identified: sandy Fernwood in the north-west and Glenrosa soils in the south-east portion of Seaton West. The proposed residential erven are located on Fernwood soils. Both soil types promote groundwater percolation and are generally associated with low levels of “buffering”, where stormwater discharge is anticipated<sup>7</sup>.

### 4.3 FAUNA AND FLORA

The study area is in an agricultural area earmarked for development. According to preliminary desktop mapping, the area applicable to this application falls within the KwaZulu-Natal Coastal Belt Grassland (CB3) ecosystem. This ecosystem has been classified as “vulnerable” by the South African National Biodiversity Institute and “endangered” by Mucina & Rutherford (2006)<sup>8</sup>. The land has however been under sugarcane cultivation for more than a century.

Since sugarcane farming ceased on site, secondary grassland has established and is under grazing pressure of horses. Due to disturbance of the site, exotic species have such as “*Schinus terebinthifolia*, *Lantana camara*, *Ricinus communis*, and *Tithonia diversifolia*” are widespread throughout both the northern and southern sites<sup>9</sup>. The specialist concluded that the site has low ecological value and is secondary in nature. A list of botanical species associated with the northern and southern sites is provided within the site-specific letter compiled by SDP (July 2022) and attached under Appendix B.

All proposed residential infrastructure is located outside of any Critical Biodiversity Areas identified by Ezemvelo KwaZulu-Natal Wildlife<sup>10</sup>.

### 4.4 WATERCOURSES

The study area falls within the U30E Quaternary Catchment within the Pongola to Mtamvuna Water Management Area (WMA 4). All watercourses within Seaton West drain into the uMhlali River, located approximately 1.2km north of the Seaton boundary (as the crow flies). Five (5) wetland features have been identified within Seaton West with two wetland systems being relevant to this environmental authorisation application (HGM 1 & 3; Figure 6)<sup>11</sup>. The wetlands are driven by:

- Surface drainage from the east emanating onto the site through a culvert underneath the N2;
- Surface drainage arising from site during precipitation; and
- Sub-surface daylighting of groundwater on-site.

**Figure 6: Aerial Image Showing the Extent of the Wetlands Proximal to and Within the Western Portion of Seaton Estate (Source: SDP, 2021).**



<sup>7</sup> Section 7.2 of the SDP “Ecological Assessment” (June 2021).

<sup>8</sup> Mucina, L. & Rutherford, M.C. (2006). *The Vegetation of South Africa, Lesotho and Swaziland*. South African National Biodiversity Institute.

<sup>9</sup> Site-Specific Comment of the Ecological Impacts of the Additional Residential Infrastructure (SDP July 2022).

<sup>10</sup> Section 5.0 of the SDP “Ecological Impact Assessment” June 2021.

<sup>11</sup> Section 6.2 of the SDP “Ecological Impact Assessment” June 2021.

All wetlands within the study area have been subjected to transformation primarily on account of historic agricultural activities. A summary of the wetland environments applicable to this application is provided below<sup>12</sup>:

#### 4.1.1. HGM 1 (Valley Head Seep)

- Transformed primarily on account of historical land use changes.
- Subject to drainage to facilitate farming activities and historic infilling to accommodate fields and other equestrian facilities.
- Minor erosion and bank collapse evident.
- PES category "D" or *largely modified*.
- Ecological functions are primarily sediment trapping, erosion control and trapping of phosphate and nitrates.

#### 4.1.2. HGM 3 (Hillslope)

- This is the largest wetland on site and has been significantly impacted by anthropogenic factors.
- Drainage is in a westerly direction, underneath the N2. The wetland drains into an agricultural dam located on the neighbouring property, Upton Farm. The water from this dam is used to irrigate Macadamia orchards on the neighbouring property.
- A road bisects the wetland creating an attenuation feature, which has been taken into consideration during the design of the stormwater management plan. This attenuation feature supports a maturing sedge community.
- PES category "C" or *moderately modified*.
- Ecological functions are primarily flood attenuation, toxicant removal and redress of nutrient loading.

### 4.5 CULTURAL AND HERITAGE

Despite falling in a high / very high fossil sensitivity area, the soil has been disturbed by agricultural activities and therefore the probability of finding any fossils on site is considered low. No items of heritage or cultural importance were identified in the study area during the original Environmental Impact Assessment. However, there is a small chance that oysters, and other shells may occur within this area<sup>13</sup>. A Fossil Chance Find Protocol has therefore been included in the EMP for Fossil Chance Finds during construction.

### 4.6 SOCIO-ECONOMIC PROFILE

Seaton West falls in the KwaDukuza Local Municipality within the iLembe District. iLembe Municipality has a population of 678 048 and had the fastest growing population in KwaZulu-Natal between 2007 – 2016<sup>14</sup>. Outside eThekweni, iLembe Municipality is the fifth biggest district economy of the ten district economies, contributing 8.15% to the KZN economy. Over 80% of the population of KwaDukuza live within urban areas with 8% residing on farms and the remainder in traditional areas<sup>15</sup>.

The Estate is positioned in between the lower income earning area of Shakaskraal, to the west, and the higher income earning area of Salt Rock / Sheffield Manor to the east. The development is therefore located in a mixed socio-economic environment. The proposed additional residential units will ultimately have a positive socio-economic impact during the construction and operational phase, by increasing the number of unskilled job opportunities available in the area.

<sup>12</sup> Section 6.3 of the SDP "Ecological Impact Assessment" June 2021.

<sup>13</sup> Prof Marion Bamford "Palaeontological Impact Assessment for the proposed development of housing and access gates on Seaton Equestrian Estate, near Ballito, KwaZulu Natal Province" October 2019.

<sup>14</sup> Department of Cooperative Governance & Traditional Affairs "iLembe District Municipality Profile and Analysis District Development Model" (June 2020).


<sup>15</sup> Statistics South Africa. Accessible on <http://www.statssa.gov.za/> Accessed on 03rd March 2021.



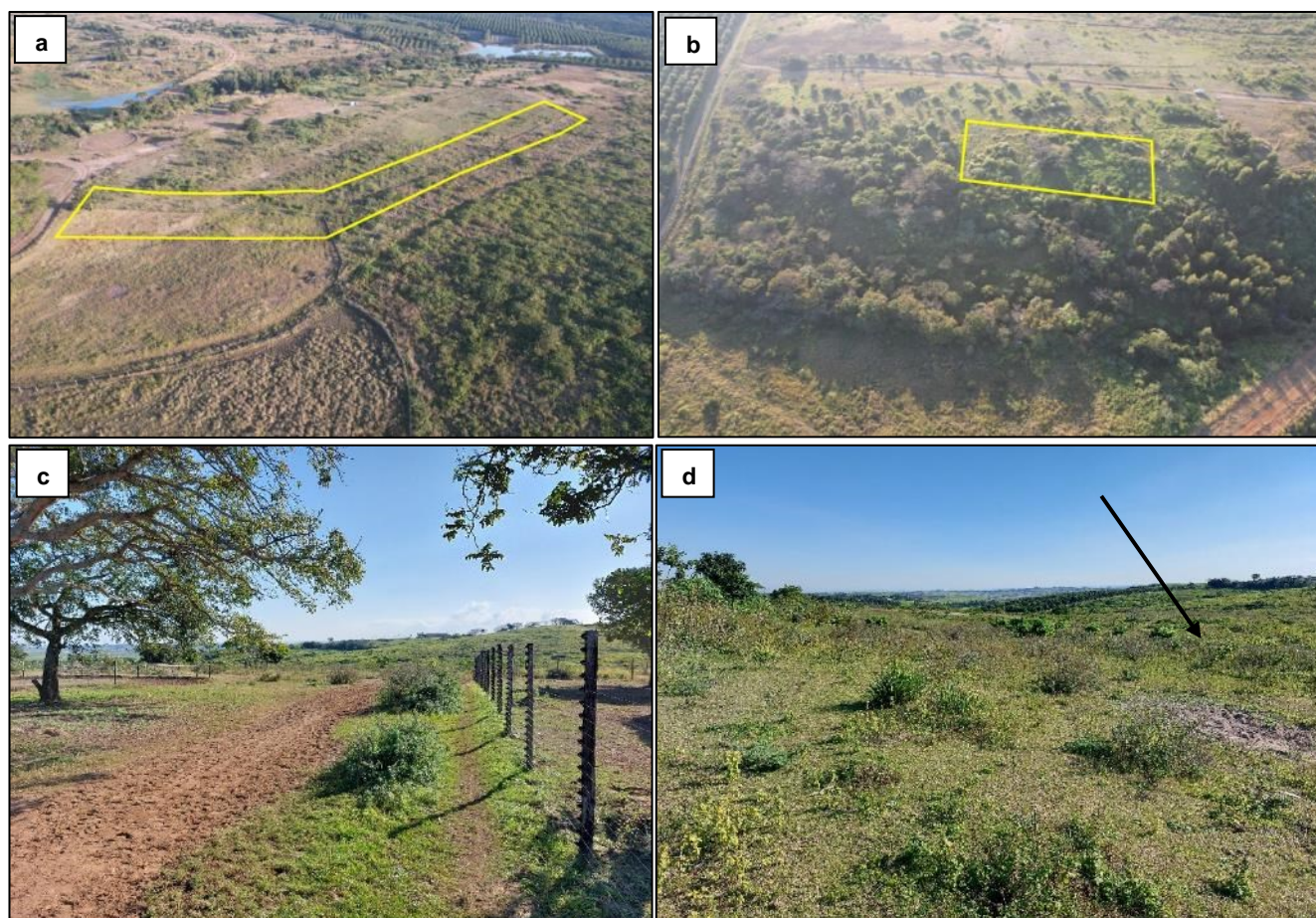
#### 4.4 SURROUNDING LAND USES

The table below shows the existing land uses surrounding the study area.

**Table 5: Land Uses Surrounding the Proposed Additional Residential Units within the Lalela Precinct, Seaton West.**

	Oaklands Equestrian Estate	Seaton Estate and Springvale Country Estate	Seaton Estate and Springvale Country Estate
	Macadamia Plantation (Upton farm)	<b>Application Area</b>	Seaton Manor House and P228 Roadway
	Macadamia Plantation (Upton farm)	Seaton Estate and N2 Highway	Seaton Estate and N2 Highway

**Figure 7: Photographs Showing the Characteristics of the Site for the Additional Residential Units Within the Western Portion of Seaton Estate. Photographs Taken on the 24<sup>th</sup> and 29<sup>th</sup> June 2022: (a) Aerial Photograph Showing and Nature and Extent of the Northern Site (Indicated by a Yellow Polygon) (SDP, 2022); (b) Aerial Photograph Showing the Nature and Extent of the Southern Site (Indicated by a Yellow Polygon) (SDP, 2022); (c) A Photograph taken Facing in a North-Westerly Direction Showing an Existing Farm Road Used to Access the Northern Sites. Note the Presence of Horse Paddocks and Areas of Extensive Grazing; (d) Photograph Taken From the Northern Sites Facing a Westerly Direction, Towards Upton Farm. HGM Unit 1 Indicated by Black Arrow.**





**Figure 7 (Continued): Photographs Showing the Characteristics of the Site for the Additional Residential Units Within the Western Portion of Seaton Estate. Photographs Taken on the 24<sup>th</sup> and 29<sup>th</sup> June 2021: (e) A Photograph taken of the Southern Sites Facing West, Showing the Vegetation Present. Note the Prevalence of Exotic Species such *Ricinus communis* and *Eucalyptus* spp. which will be Subject to Clearance During the Construction Phase of the Development; (f) Photograph Taken of the Southern Sites with HGM Unit 3 in the Foreground Shown with the Black Arrow.**



## 5.0 PUBLIC PARTICIPATION PROCESS

### 5.1. DETAILS OF PROCESS UNDERTAKEN IN TERMS OF REGULATION 41 OF THE EIA REGULATIONS

Please refer to the Public Participation Report attached under Appendix D for all details on the public participation process followed and proof of communications. Notification of all potentially Interested and Affected Parties (I & APs) took place using the following methods:

- (a) Noticeboard on the boundary of the site;
- (b) Written notification to adjacent landowners, adjacent occupiers, the relevant municipal ward councillor, the municipality and all other responsible organs of state; and
- (c) Advertisement placed in the local newspaper.

A copy of the Draft Basic Assessment Report was provided to all I & APs for a 30-day comment period. Once all comments have been responded to, the Basic Assessment Report will be updated and submitted to EDTEA for assessment. I & APs will also be provided an opportunity to comment on the Final Basic Assessment Report. EDTEA have a legislated period of 107 days to assess the application. Registered I & APs will be notified of the outcome of the application.

### 5.1 SUMMARY OF ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

No comments have yet been received on the application. This section of the report will be updated prior to the submission of the Final Basic Assessment Report to EDTEA.

## 6.0 IMPACT ASSESSMENT

The aspects and impacts listed in the table below have been identified by reviewing the receiving environmental characteristics of the site (geographical, physical, biological, social, economic, heritage and cultural), having an understanding of the environmental impacts caused by similar activities as well as input from the specialist team.

The significance of the impact (before and after mitigation) has been calculated using the recognised quantified methods described in the Department of Forestry, Fisheries and Environment Integrated Environmental Management Information Series (Series 5 on Impact Significance). The following criteria has been used to assess the significance of the impacts identified:

**Table 6: Criteria Used to Assess the Significance of Impacts Identified.**

Criteria	Rating
<b>Extent</b> of Impact <i>Size of area that will be affected by the impact</i>	<ul style="list-style-type: none"> <li>▪ Site</li> <li>▪ Local (&lt;10km from site)</li> <li>▪ Regional (&gt;10km from site)</li> </ul>
<b>Duration</b> of the Impact <i>Timeframe during which the impact will be experienced</i>	<ul style="list-style-type: none"> <li>▪ Short / once off</li> <li>▪ Medium / during operation</li> <li>▪ Long-term / permanent</li> </ul>
<b>Severity</b> of the Impact <i>Anticipated consequence of impact</i>	<ul style="list-style-type: none"> <li>▪ Slight</li> <li>▪ Moderate</li> <li>▪ Substantial</li> <li>▪ Severe</li> <li>▪ Extreme</li> </ul>
<b>Probability</b> <i>Probability of the impact occurring</i>	<ul style="list-style-type: none"> <li>▪ Very likely</li> <li>▪ Likely</li> <li>▪ Unlikely</li> <li>▪ Very unlikely</li> <li>▪ Extremely unlikely</li> </ul>
<b>Irreplaceability</b> <i>Degree of which the impact causes irreplaceable loss of resources.</i>	<ul style="list-style-type: none"> <li>▪ High (activity will destroy resources that cannot be replaced)</li> <li>▪ Moderate</li> <li>▪ Low</li> </ul>
<b>Degree of Certainty</b> <i>Confidence of impact rating based on available information</i>	<ul style="list-style-type: none"> <li>▪ High</li> <li>▪ Moderate</li> <li>▪ Low</li> </ul>
<b>Significance</b> of Impact <i>(Severity x Probability calculated as per the figure below)</i>	<ul style="list-style-type: none"> <li>▪ Very low (very minor alterations of the environment and can be easily avoided by implementing mitigation measures)</li> <li>▪ Low (minor alterations of the environment and can be easily avoided by implementing mitigation measures)</li> <li>▪ Moderate (moderate alteration of the environment and can be reduced/avoided by implementing mitigation measures)</li> <li>▪ High (major alteration to the environment even with the implementation of mitigation measures)</li> <li>▪ Very high (Very major alteration to the environment even with the implementation of mitigation measures. The impact will have an influence on decision-making)</li> </ul>
<b>Ranking</b> of residual impacts <i>Ranking of impact remaining after mitigation</i>	<ul style="list-style-type: none"> <li>▪ 5 (very low)</li> <li>▪ 4 (low)</li> <li>▪ 3 (moderate)</li> <li>▪ 2 (high)</li> <li>▪ 1 (very high)</li> </ul>

The significance of the impacts has been assessed both with and without mitigation actions. Describing the impacts in terms of the above criteria aims to provide a consistent and systematic approach for authorities to rate the effectiveness of the mitigation measures provided and assist with the assessment of the application. The *Significance of Impact* rating is calculated according to the guide below.

**Figure 8: Guide to Calculating the Significance of an Impact Based on the Severity and Probability of the Impact Occurring.**

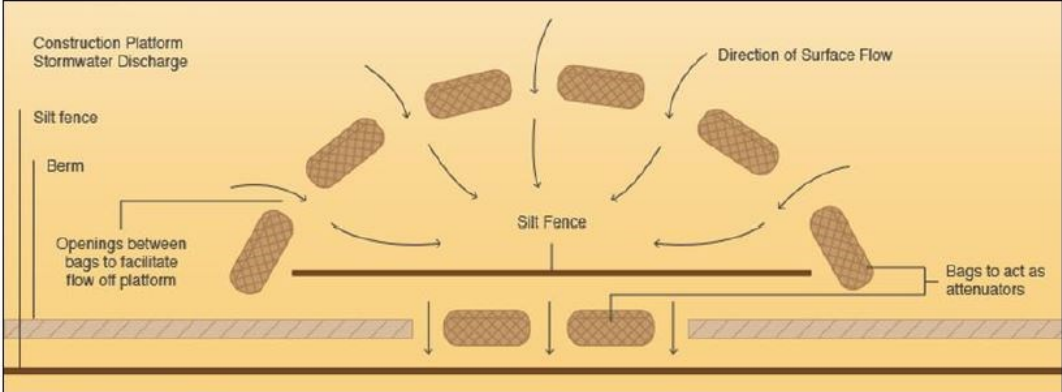
		Significance of Impact = Severity x Probability				
Probability	Very Likely	Very Low	Low	Moderate	High	Very High
	Likely	Very Low	Low	Moderate	High	High
	Unlikely	Very Low	Low	Moderate	Moderate	Moderate
	Very Unlikely	Very Low	Low	Low	Low	Low
	Extremely Unlikely	Very Low	Very Low	Very Low	Very Low	Very Low
			Slight	Moderate	Substantial	Severe
		Severity				

Table 7: Assessment of Impacts Associated with the Layout of the Thirteen Residential Erven Within 32m of Watercourses within the Lalela Precinct, Seaton West.

Aspect	Impact	Extent	Duration	Severity	Probability	Irreplaceability	Mitigation	Significance of Impact (Severity x Probability)		Ranking of	Degree of Certainty
								Without mitigation	With Mitigation (residual impact)		
<b>CONSTRUCTION</b>											
1. Earthworks on site creating platforms for development.	a. Clearance of 0.45 hectares of indigenous vegetation from within the KwaZulu-Natal Coastal Belt Grassland (CB3) ecosystem.	Site	Long-term	Slight	Very Likely	Low	<p>The currently authorised developable area applicable to DC29/0009/2019/AMEND/2021 covers an area of approximately 4.1 ha. The additional residential infrastructure within the Lalela Precinct will require an additional 0.45 ha of indigenous vegetation to be cleared within the western portion of Seaton Estate. The vegetation to be cleared consists of a mixture of secondary grassland and alien invasive vegetation (Figures 7d &amp; 7e). Horse paddocks used for grazing are currently established in portions of this area. The severity of the impact and significance after mitigation is very low due to the small extent and low ecological value of the vegetation being cleared. The following additional impact management actions have been included in the EMPr to manage this impact:</p> <ul style="list-style-type: none"> <li>• Clearance of vegetation must be done in phases to ensure soil stability is not compromised.</li> <li>• The establishment and growth of exotic vegetation must be constantly managed in disturbed areas in accordance with section 5.4.2 of the EMPr.</li> <li>• The Lalela Precinct Landscaping Philosophy must be adhered to (attached to the EMPr) to ensure that the open space system is managed and re-vegetated, improving biodiversity on site. This includes the re-</li> </ul>	Low	Very Low	5	High



							vegetation of the open space corridors in between the rows of residential erven.				
							<p>During excavation, sediment and other material have the potential to accumulate in low-lying portions of the site (i.e. wetland systems). Management interventions are therefore required to restrict sediment movement during construction. The following mitigation is proposed:</p> <ul style="list-style-type: none"> <li>• Final platform design must take into consideration the natural slope and contours of the site so that there are no unnecessarily steep slopes cut, exacerbating erosion.</li> <li>• Establish cut off drains above and below excavations.</li> <li>• Temporary stormwater control measures must be implemented prior to earthworks commencing on site to retard flow and attenuate water (Figure 9). This includes the identification of areas susceptible to erosion (i.e. valley lines and steep slopes), the strategic installation of silt fences to prevent wash away and the establishment of reno mattresses / gabion baskets / other velocity reducing devices to reduce overland flow which results in sediment wash away. These temporary control measures can be erected in the buffer zones.</li> <li>• Excavated soils must be returned to trenches and compacted prior to earthmoving machinery vacating the site.</li> <li>• Any eroded areas must be addressed and rectified when they arise to prevent further erosion from occurring.</li> <li>• Exposed banks must be vegetated as soon as practicably possible once earthworks are complete.</li> <li>• All areas outside the authorised residential erven boundaries must be designated as no-go areas.</li> </ul>	Moderate	Low	4	High
	<b>b. Exposed soil susceptible to erosion resulting in sediment deposition into wetland systems reducing functionality (SDP, 2021).</b>	Local	Short-term	Substantial	Likely	Low					

						<ul style="list-style-type: none"> <li>No heavy vehicles, material storage areas or stockpiles are permitted within the wetlands or within the 15m wetland buffer associated with the northern sites and the 25m wetland buffer associated with the southern sites.</li> <li>Stockpiles to be managed to prevent runoff during high precipitation.</li> </ul>					
							<p><b>Figure 9:</b> Diagram Showing the Recommended Placement of Temporary Stormwater Controls (SDP Ecological Report, 2021).</p> 				
<p>c. Disturbance leading to establishment and proliferation of alien invasive vegetation on site and within the surrounding wetland environment.</p>	Local	Medium-term	Moderate	Very Likely	Low	<p>Construction activities, primarily vegetation clearance, typically provides an opportunity for the proliferation of exotic species within the disturbed area. The establishment and spread of alien invasive species within the disturbance footprint must be managed throughout the construction phase by the Contractor.</p> <ul style="list-style-type: none"> <li>The “<i>Eradication of Alien Invasive Plant</i>” Management Plan must be implemented on site during construction (section 5.4.2 of the EMP). This Management Plan includes a list of common alien invasive plant species anticipated on site, identification photographs and eradication measures.</li> <li>Alien invasive species must not be permitted to establish on site.</li> </ul>	Low	Very Low	4	High	

						<ul style="list-style-type: none"> <li>The clearance of alien vegetation must take place in phases and make use of registered herbicides where necessary.</li> </ul>					
	<b>d. Alteration of habitat and faunal ethos (SDP, 2021).</b>	Local	Long-term	Moderate	Very Likely	Low	<p>The additional residential infrastructure results in a reduction of 4 505m<sup>2</sup> of open space and associated faunal habitat. The alteration of habitat is inevitable and cannot be fully mitigated. It is considered a minor impact due to the small extent of habitat loss. The alteration of habitat and faunal ethos will be alleviated during the rehabilitation phase where the following is applicable:</p> <ul style="list-style-type: none"> <li>Once earthworks are complete, exposed banks must be vegetated as soon as practicably possible.</li> <li>All open space areas authorised in the Lalela Precinct must be maintained as per the Landscape Philosophy and Concept Master Plan (attached to the EMPr).</li> </ul>	Low	Low	5	High
	<b>e. Alteration of surface hydrology in terms of surface flows (SDP, 2021).</b>	Local	Long-term	Substantial	Likely	Moderate	<p>The stormwater disposal system, as per the SMA drawing #4226-001-410, attached to the EMPr, must be substantially adhered to. The Stormwater Management Plan (SWMP) forms part of the greater Seaton West management plan and ensures that all stormwater is attenuated on site before being released into the valley lines. The following is applicable to stormwater management within the study area:</p> <ul style="list-style-type: none"> <li>The SWMP must be implemented on site as soon as practically possible to reduce uncontrolled stormwater runoff into the surrounding environment.</li> <li>Stormwater from all residential sites must be directed into a piped system which can accommodate significant rainfall events.</li> <li>The piped stormwater system must connect into the greater Seaton West stormwater management system as depicted in the SMA drawing #4226-001-410.</li> </ul>	Moderate	Low	4	High



	<p><b>f. Exposed bare soil resulting in dusty conditions on and off site (SDP, 2021).</b></p>	Local	Short-term	Moderate	Likely	Low	<p>During high winds, dust suppressing must take place using water carts / hose to prevent excessive dust on site.</p> <ul style="list-style-type: none"> <li>Any fine materials stockpiled on site must be covered to prevent dust from being blown around.</li> <li>Material transported to site on the back of trucks must be covered.</li> <li>A complaints register must be maintained on site and any complaints received addressed timeously.</li> <li>If dust becomes a nuisance, hessian shade cloth and other screening techniques must be used.</li> </ul>	Low	Very Low	5	High
	<p><b>g. Excavations destroying fossils impacting on palaeontology.</b></p>	Regional	Long-term	Substantial	Extremely Unlikely	High	<p>The palaeontologist concluded that it is extremely unlikely that any fossils occur in the development footprint of Seaton West, including the sites for the thirteen residential erven. However, given the potentially very high sensitivity of the rocks underlying the site, a Fossil Chance Find Protocol has been provided under section 4.3 of the EMPr.</p> <ul style="list-style-type: none"> <li>During earthworks, should any objects with historical, archaeological or cultural significance be uncovered, all work in this area must cease and the heritage authority, AMAFA, notified.</li> </ul>	Very Low	Very Low	5	Moderate
<p>2. Construction of 4505m<sup>2</sup> residential infrastructure within 32m of two wetlands</p>	<p><b>a. Encroachment into wetland buffers increasing the potential for reduced wetland functionality and indirect impacts on downstream wetlands.</b></p>	Site	Medium-term	Moderate	Likely	Low	<p>Residential infrastructure to be constructed within 32m of HGM 1 and HGM 3 includes residential units, road / driveways and service infrastructure (water, sewer and stormwater pipelines). To ensure that no construction activities take place within the recommended wetland buffers, the following is applicable:</p> <ul style="list-style-type: none"> <li>A shade cloth / silt fence must be erected along the respective wetland buffers (15m from HGM Unit 1 and 25m from the HGM Unit 3) (orange in Figure 11).</li> <li>This silt fence must be maintained throughout the construction period to ensure that it</li> </ul>	Moderate	Low	4	High

							<p>prevents silt and construction material from washing / blowing into the wetlands.</p> <ul style="list-style-type: none"> <li>• All infrastructure must be constructed behind the silt fence.</li> <li>• Should erosion of the platform embankment occur, the disturbed area must be rehabilitated in collaboration with the ECO.</li> <li>• The only personnel permitted within the wetland buffer area are staff conducting alien vegetation clearance and / or wetland rehabilitation in accordance with the Wetland Rehabilitation Plan attached to the EMPr.</li> <li>• No storage of material must take place along the boundary of the silt fence.</li> <li>• Heavy construction machinery and equipment are not permitted within the wetland buffers.</li> </ul>				
3. General construction-related impacts.	<b>a. Littering and improper storage / disposal of waste accumulating on site and within adjacent sensitive wetland areas.</b>	Site	Short-term	Moderate	Likely	Low	<p>The following measures are included in the EMPr to manage waste during construction so that it is contained within the development footprint and correctly disposed of:</p> <ul style="list-style-type: none"> <li>• All waste generated on site must be disposed of in the designated waste management area to ensure that it is not blown around the site into the environmentally sensitive areas or adjacent properties.</li> <li>• The waste management area must be located outside of the 32m regulated area.</li> <li>• All waste must be stored under cover to prevent rain ingress and/or waste from being blown around site.</li> <li>• No waste must be buried or burnt on site.</li> <li>• Potentially hazardous substance <sup>16</sup> to be stored in a fenced off area that is undercover to prevent contamination of rainwater.</li> <li>• All potentially hazardous substances must be stored, in a bunded area (110% capacity of largest container) with an impermeable</li> </ul>	Low	Very Low	5	High

<sup>16</sup> Hazardous substances refer to substances scheduled in the Hazardous Substances Act (1973) and Hazardous Chemical Substances Regulations (1995) and include paint, oils, fuels, solvents, pesticides.

						<p>surface to prevent soil contamination during handling.</p> <ul style="list-style-type: none"> <li>The use of hydrocarbons and other potentially hazardous liquids on site must be managed in accordance with section 4.3 of the EMPr attached under Appendix E.</li> <li>No bulk storage of fuel is permitted on site (&gt;30m<sup>3</sup>).</li> <li>A full inventory of all hazardous materials must be retained on site with the respective Material Safety Data Sheets.</li> <li>All solid waste must be disposed of at an appropriate landfill site and records of such disposal must be retained on site for auditing purposes.</li> </ul>					
	<p><b>b. Improper placement and management of toilet facilities negatively impacting adjacent sensitive wetland area.</b></p>	Site	Short-term	Moderate	Unlikely	Low	<p>Sufficient toilet facilities must be provided on site to prevent construction staff from utilising the surrounding areas.</p> <ul style="list-style-type: none"> <li>Toilets must be located within the site camp, outside of the respective wetland buffers.</li> <li>Staff must use the toilets provided and must not use any other areas on site as toilet facilities.</li> <li>Toilets should be screened as far as is practically possible.</li> <li>Ablution facilities must be checked regularly and kept in a clean state.</li> </ul>	Low	Very Low	5	High
	<p><b>c. Incorrect placement of the site camp indirectly impacting adjacent sensitive wetland area.</b></p>	Local	Short-term	Moderate	Likely	Low	<p>It is unlikely that a separate site camp will be required for the thirteen residential erven applicable to this application as one site camp will be established for the entire Seaton West / Lalela Precinct development. Should a site camp be specifically established for these thirteen erven, the following measures are applicable:</p> <ul style="list-style-type: none"> <li>The site camp must be located outside of the 32m regulated area associated with all watercourses within Seaton Estate.</li> <li>The site camp must be located on a flat portion of land and must include a parking area for vehicles.</li> </ul>	Low	Very Low	5	High



							<ul style="list-style-type: none"> <li>• Signage is to be erected outside site camp indicating relevant contact details of responsible person in case of complaints or emergencies after hours.</li> </ul>				
	<p><b>d. Construction staff and littering unintentionally disturbing the adjacent wetland.</b></p>	Site	Short	Moderate	Unlikely	Low	<ul style="list-style-type: none"> <li>• All areas outside the designated residential erven footprint must be designated as no-go areas prior to earthworks commencing on site (i.e. silt fences and signage).</li> <li>• The ECO must carry out an environmental toolbox talk with the Contractor and all vehicle operators prior to earthworks commencing. The training must include the identification of the wetland and the restrictions associated with the zone.</li> <li>• All waste generated on site must be disposed of in the designated waste management area to ensure that it is not blown around the site into the environmentally sensitive areas.</li> <li>• Toilets must not be located within the 15m wetland buffer or near steep slopes where there is a risk of tipping over.</li> <li>• Staff must use the toilets provided and must not use any other areas on site as toilet facilities.</li> </ul>	Low	Very Low	5	High
	<p><b>e. Hydrocarbons or other liquids / chemicals entering the immediate environment and wetland habitat reducing functionality (SDP, 2021).</b></p>	Site	Short-term	Moderate	Unlikely	Low	<p>The use of hydrocarbons and other potentially hazardous liquids on site must be managed in accordance with section 4.3 of the EMPr attached under Appendix F.</p> <ul style="list-style-type: none"> <li>• Reduce requirements for storage and use of noxious liquids (i.e. fuel) on site.</li> <li>• All hazardous material must be stored in an enclosed area which is hard surfaced and undercover.</li> <li>• The hazardous storage area must not be located within the wetland buffers (15m wetland buffer from the northern portion, and a 25m wetland buffer from the southern portion of the additional units within the Lalela Precinct).</li> <li>• No bulk storage of fuel is permitted on site (&gt;30m<sup>3</sup>).</li> </ul>	Low	Very Low	5	High

						<ul style="list-style-type: none"> <li>• Vehicles must be refuelled off site.</li> <li>• No vehicles or equipment must be washed on site unless at a designated wash bay where dirty water must drain into a sump where hydrocarbons / contaminated material is separated out before the water is discharged into the surrounding environment.</li> <li>• A full inventory of all hazardous materials must be retained on site with the respective Material Safety Data Sheets.</li> <li>• The ECO's environmental toolbox talk must include a spill response procedure (included in the Environmental Awareness Plan; section 5.0 of the EMPr).</li> <li>• Ensure absorbents and related materials (i.e. spill kit) are present on site.</li> </ul>				
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**OPERATION**

1. Increase in hard surfaces on the property.	a. <b>Alteration of the local hydrological regime (SDP, 2021). Increase in the velocity and volume of stormwater runoff into wetlands leading to erosion and sedimentation. Potential to decrease groundwater recharge and intensify flood events downstream.</b>	Local	Long-term	Substantial	Likely	Moderate	<p>There will be an increase in hard surfaces resulting in a change in surface runoff associated with the establishment of roadways and residential infrastructure.</p> <ul style="list-style-type: none"> <li>• A piped stormwater management system must be constructed, as shown in the SMA SWMP attached to the EMPr. The stormwater system must connect to the greater Seaton West stormwater management system). The engineer has utilised various attenuation facilities and grass swales to reduce velocity and increase percolation prior to the stormwater entering the wetland systems.</li> <li>• All erven boundaries must be located outside of the 15m wetland buffer (northern sites) and all residential infrastructure associated with the southern sites, located 25m from the wetland edge.</li> <li>• The wetland buffers form part of the Seaton Estate open space system. The Homeowners Association are responsible for the implementation of the Wetland Rehabilitation</li> </ul>	Moderate	Low	4	High
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							<p>Plan prepared by SDP and attached to the EMPr.</p> <p>The following must be adhered to during the operational phase of the development so that the hydrology of the site remains intact (i.e. as per the pre-development state):</p> <ul style="list-style-type: none"> <li>• Stormwater runoff from hard surfaces must not be discharged directly into the valley lines / wetland systems but must be directed into the piped system to allow for free flow of water beneath roads.</li> <li>• All precipitation must be encouraged to percolate into the surrounding soils through the use of grass swales / furrows and unlined attenuation features (i.e. groundwater recharge).</li> <li>• Permeable paving is encouraged where large hard surfaces are proposed (i.e. parking areas).</li> <li>• All open space areas must be vegetated to decrease hard panning wherever feasible.</li> <li>• The holder of the Environmental Authorisation as well as the individual property owners are bound to the Landscape Philosophy and Concept Plan attached to the EMPr.</li> </ul>				
2. Residential activities within 32m of wetland HGM 1 & 3.	a. Overall decrease in water quality in wetland systems over time.	Site	Medium-term	Substantial	Unlikely	Moderate	<p>From a design perspective, the following is required to reduce the likelihood of a decrease in water quality in the downstream wetlands during the operational phase.</p> <ul style="list-style-type: none"> <li>• Soap and other hydrocarbons (paint, chemicals etc.) must not be permitted to enter the stormwater system as this will result in “dirty” stormwater entering the wetlands.</li> <li>• All dirty water from kitchens and bathrooms must be directed into the sewer system and not stormwater.</li> <li>• Water from residential units (i.e. water features, car washing, ponds etc.) must be discharged in a controlled manner onto the natural ground and not onto road surfaces or into the piped stormwater system.</li> </ul>	Moderate	Low	4	Moderate



							<ul style="list-style-type: none"> <li>The wetland specialist recommends that water quality sampling be conducted upstream and downstream of the site. This monitoring includes the following: <ul style="list-style-type: none"> <li>Annual water quality samples must be taken from HGM 1 &amp; HGM 3 at the furthest points downstream of the site. The following parameters must be recorded: <ul style="list-style-type: none"> <li>Faecal coliforms</li> <li><i>E.coli</i></li> <li>N &amp; P</li> <li>Ammonia</li> <li>pH</li> </ul> </li> <li>A wetland specialist is to provide comment on the Present Ecological State (PES) of HGM 1 and HGM 3 on an annual basis to ensure that there is no degradation of the wetland condition. The PES score should improve over time as the rehabilitation of the site is carried out (see baseline results under section 4.4).</li> </ul> </li> <li>To further protect the wetland systems during operation, phytoremediation systems must be established at all stormwater outlet points under the guidance of the ECO. The ECO to advise on what species must be planted to reduce sediment from entering the wetland system and remove excess nitrates.</li> </ul>				
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**CUMULATIVE**

1. Increase in the number of people residing in the area.	<b>a. Increase in traffic putting pressure on the existing road network.</b>	Regional	Long-term	Substantial	Unlikely	Low	The thirteen residential units were taken into consideration by the traffic engineer in the Traffic Impact Assessment (TIA) attached under Appendix B (see Figure 3 of the TIA, which shows the entire Seaton West development, including the thirteen residential erven applicable to this application). As per the requirements of the greater Seaton Estate Environmental	Low	Low	5	High
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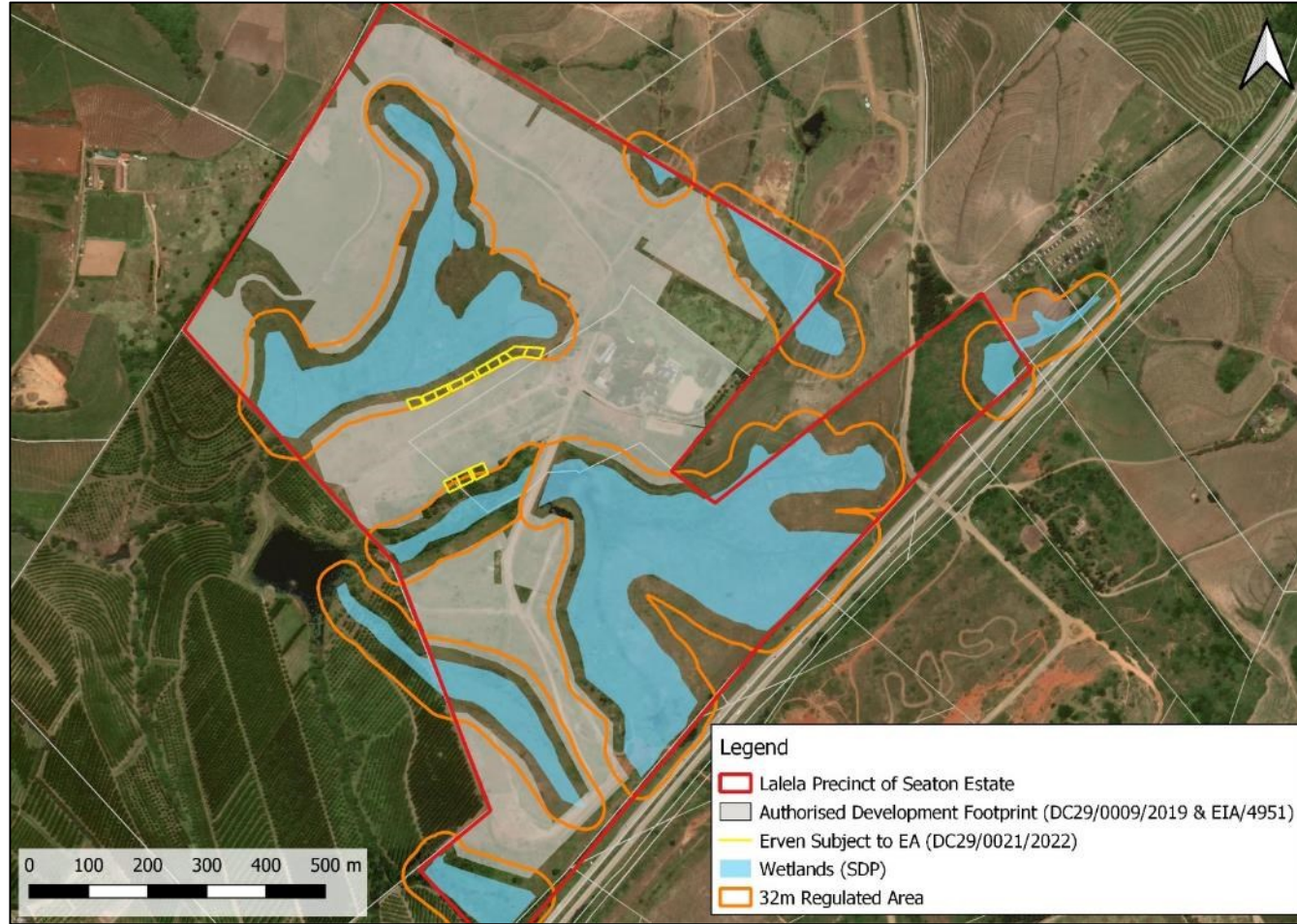
						<p>Authorisation, the following is applicable to this application:</p> <ul style="list-style-type: none"> <li>• Through the implementation of the Roads Master Plan for the KwaDukuza area, the traffic impact associated with Seaton West can be mitigated.</li> <li>• The proposed N2 Sheffield Interchange forms part of the Roads Master Plan and is scheduled to commence construction once all environmental approvals are in place. This interchange will relieve existing and future traffic congestion on the surrounding road network.</li> </ul>					
	<p><b>b. Increased reliance on the electricity supply in the Tinley Manor area.</b></p>	Regional	Long-term	Moderate	Likely	Low	<p>The Electrical Capacity letter provided by Adamastor Consulting (Appendix B) confirms that there is an existing overhead line which serves the Manor house. There is an existing allocation of 500kVa, which will need to be upgraded to 900kVa to account for the increased density within Seaton West, which includes the electrical demand associated with the thirteen additional residential units. Discussions are underway with KwaDukuza Electrical Engineering Services Directorate to strengthen the entire electrical network in the area, including the network supplying Seaton, thereby providing <i>“more than sufficient capacity for this development in the medium term”</i><sup>17</sup>. The following mitigation measures are included to reduce the electricity demand and promote energy saving technology:</p> <ul style="list-style-type: none"> <li>• The developer must implement energy saving technology and equipment to reduce the electricity demand (i.e. solar water heaters, PV panels, LED technology etc.).</li> <li>• Streetlight luminaires within the development area must be LED Luminaires.</li> </ul>	Low	Very Low	5	High

	<p><b>c. Increased pressure on the bulk potable water supply and sewerage disposal network in the Sheffield Beach area.</b></p>	Regional	Long-term	Substantial	Likely	Low	<p>The thirteen residential units were taken into consideration in the Engineering Services Report (ESR) prepared by SMA Consultants (Appendix B). The ESR confirms that there is sufficient capacity for services in terms of water and sewer. The total water demand anticipated for the entire Seaton West development, including the additional residential infrastructure, is 1.38MI/day.</p> <ul style="list-style-type: none"> <li>• Potable water will be provided to the development by Siza Water from the Tafeni Reservoir.</li> <li>• In an effort to reduce reliance on the municipal system, all residential units must include a rainwater harvesting tank.</li> </ul> <p>A total bulk sewer demand of 1.01MI/day is anticipated for Seaton West, including the additional residential infrastructure.</p> <ul style="list-style-type: none"> <li>• All sewage generated will be discharged into an existing outfall sewer owned by Siza Water and treated at the Sheffield Wastewater Treatment Works.</li> </ul> <p>Proposed water and sewer reticulation layouts are attached to the ESR. The holder of the EA and Siza Water are in the process of entering into a service level agreement.</p>	Low	Very Low	5	High
<p>2. Increase in residential infrastructure within 32m of wetlands within the greater Seaton Estate.</p>	<p><b>a. Increased cumulative impacts on the downstream wetland systems over the long-term.</b></p>	Local	Long-term	Moderate	Unlikely	Moderate	<p>Sherpa Trade and Invest 31 (Pty) Ltd are the holders of two valid Environmental Authorisations for the development of 484 single residential erven and 6.5 hectares of PUD sites within the western portion of Seaton Estate (known as the “Lalela” Precinct). Approximately 5 hectares of residential infrastructure has been authorised within 32m of watercourses in the Lalela Precinct. The additional thirteen residential erven proposed fall within the centre of the Lalela precinct and will increase the total area of residential infrastructure within 32m of watercourses by 4 505m<sup>2</sup>. Figure 10 below provides an image showing the authorised development footprint, shaded in grey, and the</p>	Low	Very Low	5	High



						<p>proposed thirteen residential erven, outlined in yellow. The thirteen additional erven align with the authorised development footprint within the Lalela Precinct.</p> <p>The thirteen residential erven have been assessed individually (SDP Site-Specific Letter, 2022) and holistically by specialists and engineers (SWMP, ESR, etc.). The wetland buffers mitigate much of the impacts anticipated on the adjacent watercourses. The following mitigation measures have been included in the EMPr to prevent any negative impacts on downstream wetland systems:</p> <ul style="list-style-type: none"> <li>• A silt fence must be erected along wetland buffers as indicated in Figure 11.</li> <li>• The silt fence must be maintained throughout the construction period to ensure that it prevents silt and construction material from washing into the wetlands.</li> <li>• Should erosion upstream of a wetland occur, the disturbed area must be rehabilitated in collaboration with the ECO.</li> <li>• The only personnel permitted within the wetland buffer area are staff conducting alien vegetation clearance and / or wetland rehabilitation.</li> <li>• No storage of material must take place along the boundary of the silt fence.</li> <li>• During the construction of additional infrastructure, heavy construction machinery and equipment are not permitted within the respective wetland buffers.</li> <li>• All construction machinery / equipment on site must be in good working order to ensure there are no leaks.</li> </ul>				
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Figure 10: Aerial Map Showing the Authorised Development Footprint Associated with the Lalela Precinct (Grey) and the Position of the Proposed Thirteen Residential Erven (Yellow).



<p><b>b. Reduction in the Seaton West / Lalela Precinct Open Space System.</b></p>	<p>Site</p>	<p>Long-term</p>	<p>Moderate</p>	<p>Unlikely</p>	<p>Low</p>	<p>The overall area of continuous open space will decrease by approximately 0.45 hectares. The Open Space System excludes private garden areas associated with residential erven and the strips of open space proposed between the rows of residential erven. The function of the Seaton West / Lalela Open Space System is to:</p> <ul style="list-style-type: none"> <li>- Protect ecologically sensitive areas (i.e. downstream wetland systems),</li> </ul>	<p>Low</p>	<p>Very Low</p>	<p>4</p>	<p>High</p>
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						<ul style="list-style-type: none"> <li>- Create physical and hydrological linkages within the study area;</li> <li>- Encourage percolation of rainwater maintaining groundwater levels; and</li> <li>- Provides corridors for fauna movement.</li> </ul> <p>Minor loss of the Open Space System is anticipated. The integrity of the Open Space System will however be maintained with the boundaries of the thirteen residential erven aligning with currently authorised residential erven boundaries. Areas of ecological significance have been retained as well as physical and hydrological linkages within Seaton West. The decrease in area of the Open Space System has been rated as “low” severe without mitigation. As per the requirements of the greater Seaton Estate Environmental Authorisation:</p> <ul style="list-style-type: none"> <li>• Re-vegetation of the open space system within the Lalela Precinct must be carried out in accordance with the Landscape Philosophy and Concept Master Plan attached to the EMPr.</li> <li>• Rehabilitation of HGM1 and HGM 3 must be carried out in accordance with the SDP Wetland Rehabilitation Plan attached to the EMPr.</li> <li>• As per discussions with the adjacent landowner during previous assessments, HGM, 3 below the attenuation dam wall must be allocated a “no go” area during the operation of the Estate to prevent residents from traversing through the wetland, walking dogs etc. This must be incorporated into the Body Corporate Rules.</li> </ul> <p>It is anticipated that the connectivity of open space and faunal habitat will be with the implementation of the Landscaping Plan and Wetland Rehabilitation Plan. The final rating for the impact, after mitigation, is therefore rated as having “very low” significance.</p>			
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## 7.0 ENVIRONMENTAL IMPACT STATEMENT

### 7.1. SUMMARY OF KEY FINDINGS (POSITIVE AND NEGATIVE IMPACTS)

The proposed thirteen residential units within the central portion of the Lalela precinct of Seaton Estate are aligned with the greater Seaton West Estate development footprint. The layout of the erven takes into consideration the environmentally sensitive features of the area (i.e. wetlands, buffers, topography and open space system). The thirteen units will be located within the 32m regulated area of two wetlands but are located outside of the recommended 15m wetland buffer. This assessment considers the impacts of the residential infrastructure in isolation and also the cumulative impacts associated with additional residential erven being construction within the greater Seaton West development.

The construction phase has the potential to have the greatest environmental impacts with the clearance of vegetation and mobilisation of sediment within 32m of wetlands. Construction activities must therefore be managed in accordance with the measures provided in the EMPr so that all impacts are reduced to a *low* and/or *very low* level of significance. During operation, the thirteen residential erven are unlikely to have any significant impact on the surrounding environment provided that the stormwater management system is constructed as per the SWMP prepared by SMA Consultants and attached to the EMPr. The rehabilitation of wetlands and the open space system associated with the greater Seaton West / Lalela development is required as a condition of the overall Seaton Estate Environmental Authorisation.

This assessment considers the impacts of the additional infrastructure in isolation and also considers the cumulative impacts associated with the increased density across the entire Seaton West development. The following provides a summary of the key findings of the assessment:

- The thirteen residential units will see an increase in infrastructure within 32m of wetlands within the Lalela Precinct of Seaton Estate. Approximately 5 hectares of residential infrastructure is currently authorised within 32m of watercourses within the Lalela Precinct. The proposed thirteen residential erven will see an additional 4 505m<sup>2</sup> of residential infrastructure constructed within 32m of watercourses. The distance from the wetlands, which has taken into consideration specialist input and concerns raised by the adjacent landowner, will mitigate much of the anticipated impacts on the wetlands. Provided the buffers are maintained and the EMPr implemented, the impact on wetlands is reduced to a low level of significance.
- General construction related impacts associated with the construction phase can be managed to a *very low* level of significance, provided all the measures contained in the EMPr are adhered to.
- The cumulative impact on services (traffic, water, sewer and electricity) has previously been assessed holistically for the greater Seaton West, which took into account the proposed thirteen additional residential units. Provided the necessary services are implemented, as stated in the respective services reports attached under Appendix B, there will be sufficient capacity of services for the entire Seaton West development.
- An increase in hard surfaces on the site. This has the potential to alter the local hydrological regime having an indirect impact on the downstream watercourses. Through the implementation of specific engineering designs associated with the site-specific SWMP and the maintenance of the respective wetland buffers, the ecologist concludes that the increased hard panning will have "*little significant ecological impact*"<sup>18</sup>. Annual water quality samples will be collected from HGM 1 & 3 to monitor water quality leaving Seaton West.
- The proposed layout sees a 0.45 hectare decrease in the Open Space System that was originally provided for in this area of Seaton West. Taking into consideration the low ecological value of the terrestrial habitat forming the open space and the proposed rehabilitation plan, the decrease in open space has been rated as having "*very low*" significance and is considered a minor impact on local flora and fauna.

### 7.2 ASSUMPTIONS, UNCERTAINTIES AND GAPS IN KNOWLEDGE

The information in this report has been extracted from the various specialist reports attached under Appendix B. As discussed at the pre-application meeting with EDTEA, specialist studies undertaken for previous assessments in this area of Seaton have been used in this assessment with a more up to date opinion provided by the ecologist and wetland specialist specifically focussing on the area under assessment. The assessment assumes that information received from the specialist team and applicant is accurate.

<sup>18</sup> Executive Summary of the SDP "Ecological Assessment" attached under Appendix C.

### 7.3 IMPACT MANAGEMENT OUTCOMES

Through the assessment process, impact management outcomes have been identified and are provided in the table below. Impact management measures and recommendations identified during the assessment are in addition to the original impact management outcomes and have been included in the EMPr attached under Appendix E.

**Table 8: Impact Management Outcomes Associated with the Thirteen Residential Erven within 32m of Watercourses in Seaton West.**

<b>Primary Impact Management Outcome:</b> <i>To create a sustainable development by avoiding ecologically sensitive areas and preventing downstream indirect impacts.</i>		
<b>#</b>	<b>Impact Management Outcome</b>	<b>Measures in Place to Achieve Outcome</b>
1	Prevent disturbance to proximal and downstream wetlands during construction.	<ul style="list-style-type: none"> <li>The EMPr attached under Appendix E must be adhered to during the construction phase to ensure that staff receive undergo Environmental Awareness training, no-go areas are demarcated, and earthworks is well managed to reduce sedimentation of the downstream watercourses.</li> </ul>
2	Stormwater management to reduce flow quantity and velocity discharging into valley lines.	<ul style="list-style-type: none"> <li>A site-specific SWMP has been design for the entire Seaton West development using recommendations made by the ecologist. All stormwater from the 13 residential units must be piped into the greater Seaton West stormwater management system.</li> <li>The SWMP must be adhered to during construction (SMA Drawing #4226-001-410).</li> <li>Management measures have been included in the EMPr to manage nutrient / hydrocarbons entering the stormwater system during construction.</li> </ul>
3	No long-term, indirect impact on the functioning of the wetland system (on site and further downstream).	<ul style="list-style-type: none"> <li>The 15m wetland buffer prescribed by the specialist has been adhered to for the northern sites.</li> <li>No residential units are proposed within 25m of wetlands associated with the southern sites.</li> <li>Annual water quality sampling must be undertaken during the operational phase of the development to monitor and manage any changes in water quality.</li> <li>Management measures have been provided in the EMPr to restrict sediment movement within the development footprint during construction.</li> </ul>

### 7.4 PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED

Construction of the thirteen residential infrastructures within the Lalela Precinct is likely to commence as soon as approval has been obtained and the necessary funding secured (i.e. within the next year). It is recommended that the EA remain valid until 2027. A post-construction audit must be undertaken by an independent Environmental Control Officer (ECO) and the report submitted to EDTEA: Compliance and Enforcement.

### 7.5 MONITORING REQUIRMENTS

An independent ECO must be appointed by the applicant to monitor the development in accordance with the EMPr attached under Appendix E.

- The ECO must, prior to any work commencing on site, conduct Environmental Awareness training with site personnel (as per section 5.0 of the EMPr). The wetland No-Go areas must be demarcated with shade cloth / silt fencing by the ECO in collaboration with the Contractor.
- The ECO must conduct monthly site inspections during construction and a monthly audit report submitted to the applicant, Contractor and EDTEA: Compliance and Enforcement.
- One post-construction audit must be undertaken when construction is complete.
- Annual water quality sampling of both HGM 1 and HGM 3 must be conducted during the operational phase of the development.

## 7.6 REASONED OPINION AS TO WHETHER THE PROPOSED ACTIVITY SHOULD BE AUTHORISED AND CONDITIONS OF AUTHORISATION

Based on the outcome of this assessment, it is recommended that the construction of the thirteen residential units within 32m of two wetlands be authorised by EDTEA. The proposed layout, attached under Appendix C, must be strictly adhered to, to avoid untoward impacts on the downstream wetlands. It is important that all staff working on site are aware of the sensitive environmental areas at the onset of construction. After mitigation, the significance of all impacts associated with the construction phase will have “low” to “very low” significance.

As indicated by the wetland specialist, all infrastructure must be located outside of the 15m wetland buffer. Due to the steeper gradient associated with HGM 3, no infrastructure is permitted within 25m of the wetland for the southern sites. The results of the site-specific environmental assessment by the specialist stated that “*provided the mitigations contained within the SDP Ecological Assessment (2021) are included within the EMPr, the additional residential infrastructure proposed for Lalela should not be precluded based on ecological grounds*”. Measures have been included in the attached EMPr to ensure that the impact management outcomes listed in Table 8 are achieved. It is therefore the reasoned opinion of the EAP that development of residential infrastructure within 32m of two wetlands be authorised by EDTEA.

The following conditions are recommended for inclusion in the Environmental Authorisation:

- The proposed layout must be strictly adhered to. No-Go areas, indicated in Figure 11, must be avoided by all construction staff and equipment, unless to undergo wetland rehabilitation in accordance with the Wetland Rehabilitation Plan.
- The EMPr attached under Appendix E must be adhered to during all phases of the project.
- A knowledgeable ECO must be appointed by the applicant to accurately demarcate and manage the construction interface with sensitive environmental areas and to ensure compliance with the EMPr.
- The authorised development footprint must be clearly demarcated by the Contractor, in conjunction with the ECO, to avoid unnecessary encroachment towards the proximal wetland systems.
- Annual water quality samples must be taken from HGM 1 & HGM 3 at the furthest points downstream of the site.
- Work in accordance with the Wetland Rehabilitation Plan must commence simultaneously with the construction of the thirteen residential erven.
- Stormwater on site must be managed in accordance with the SMA SWMP (# #4226-001-410) to ensure that there are no downstream indirect impacts on water quantity and quality.



Figure 11: Location of Residential Infrastructure within 32m of Watercourses in the Lalela Precinct of Seaton Including Sensitive Environmental Areas to be Avoided During Construction.

