



BASIC ASSESSMENT REPORT

THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS.

NOVEMBER 2019

(For official use only)			
Pre-application Reference Number (if applicable):	16/3/3/6/7/1/D6/29/0081/21		
EIA Application Reference Number:			
NEAS Reference Number:			
Exemption Reference Number (if applicable):			
Date BAR received by Department:			
Date BAR received by Directorate:			
Date BAR received by Case Officer:			

GENERAL PROJECT DESCRIPTION

(This must Include an overview of the project including the Farm name/Portion/Erf number)

PROPOSED CONSTRUCTION OF A STORAGE FACILITY ON ERF 21275, AALWYNDAL, MOSSEL BAY, WESTERN CAPE

Sharples Environmental Services.cc have been appointed by Storage Mossel Bay (Pty) Ltd, to undertake the environmental assessment, in accordance with the National Environmental Management Act, 1998 (Act 107 of 1998), in terms of the Environmental Impact Assessment Regulations, 2014 (as amended 2017), for the Proposed Construction of a Storage Facility on Erf 21275, Mossel Bay, Western Cape.



Figure 1: Locality Map

The proposed development site is situated in Aalwyndal, on ERF 21275, Portion 240, Vyf Braakke Fontein Farm, approximately 13km's north-west of Mossel Bay Central. It is approximately 77 521m² in size, is zoned as Residential Zone I, and is intended to be rezoned to Light Industrial, to accommodate the proposed development.

The proposed development will entail:

- The construction of a storage facility, extending across Erf 21275, accommodating approximately 1 832 storage units of varying sizes, that will be used for the storage of private goods, including but not limited to furniture, caravans, equipment, etc, as well to be utilized for airport storage. Unit sizes proposed:
 - 158 x (±3mx3m)
 - 1674 x (±3mx6m)
- Construction of:
 - A 39m² office with male and female toilet and hand wash basin. Inclusive of small kitchenette for office staff.
 - A 57m² guardhouse with toilet and hand wash basin.
 - A 97m² caretaker flat.
- Construction of a 2.4m Palisade fence with Electrical fence over (perimeter fence).
- Approximately 346 parking spaces will be provided, with an additional 8 visitors parking.
- Dust free interlocking paving and grass blocks.

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Figure 2: Proposed layout plan (Belvedere Architects, 2021).

The construction of the proposed storage facility will occur in an area that has been earmarked for development, in accordance with the Local Spatial Development Plan, dated January 2018, as per Figure 3 below:

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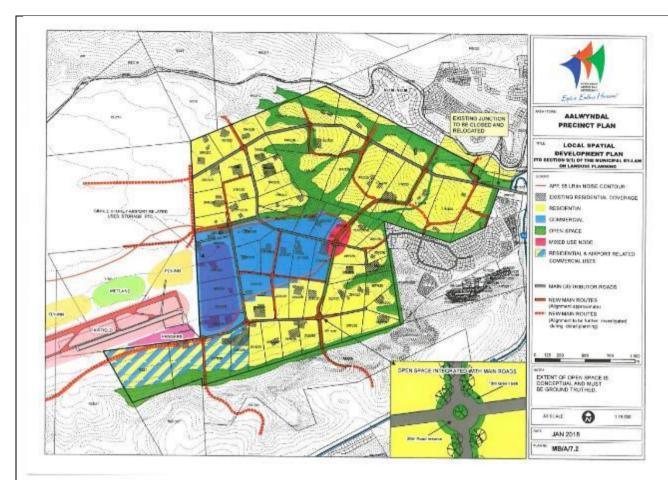


Figure 3: Aalwyndal precinct plan (Local Spatial Development Plan, June 2018)

The site is located directly east of the Mossel Bay Airfield and is bounded to the south and north by smallholdings. Current and proposed access to the development is obtained via Nagtegaal Street. The property in question, along with the northern, southern and eastern adjacent properties, are intended to be rezoned, with ERF 21275 and the northern and southern neighbouring properties potentially accommodating warehouses/storage facilities, that can be utilized by the neighbouring Mossel Bay Airport, as well as for public use.

The site is currently used for small-scale cultivation, horse grazing, and does accommodate some woody alien invasive species. However, the site contains good quality fynbos and as determined by the Botanical Specialist, at least one Species of Conservation Concern.

ENGINEERING SERVICES (As extracted from the Engineering Report (Appendix L.1)

Development concept from and engineering services perspective

Although the proposed development footprint is quite large, the development will have a negligible impact on engineering services. This is due to the fact that the development of the private storage spaces will not provide for any engineering services to the storage spaces. Engineering services will only be required for the following infrastructure at the gate:

- 39m² office with male and female toilet and hand wash basin. Inclusive of small kitchenette for office staff.
- 57m² guardhouse with toilet and hand wash basin.
- 97m² caretaker flat.

The above is further underlined by the fact that no activity will be allowed at the stores, i.e. tenants may not work at the storage spaces, ensuring that the stores do not become in fact an industrial area but will remain as intended, namely a private storage space.

Water

Demand

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The Average Annual Daily Demand (AADD) for this proposed development in line with accepted design consumptions, assumptions, criteria and standards, is calculated and estimated at a negligible 2 kl/day. Peak factors are negligible.

Availability

Discussions were held with municipal officials in that the proposed development will have a negligible impact on bulk water availability. The development will in fact have a bulk water demand similar to the existing structures on the property. No additional bulk water is hence required.

Connection Point

The site is serviced by a municipal 90mm uPVC water line along Nagtegaal Street. The existing connection to the erf will be utilized and will be sufficient.

Sewer

Bulk sewer and connection point

A municipal sewer network is not available in the wider area of Aalwyndal and the property is hence not serviced with a municipal sewer connection. The current houses on the property utilize a septic tank and soak-away.

Design flow

The Average Dry Weather Flow (ADWF) of the development, in line with accepted design criteria and standards, can be calculated and estimated as 2kl/day, divided between the three facilities, i.e. the office, guardhouse and caretaker flat.

Sewage treatment solution

A septic tank with soakaway will be provided at each of the three facilities, i.e. the office, guardhouse and caretaker flat.

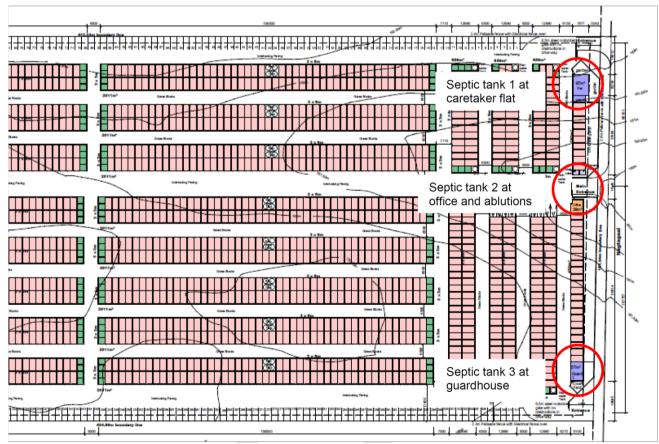


Figure 4: Locations of proposed septic tanks.

Operation & Maintenance of septic tanks

A septic tank has a low capital cost outlay, a low operational & maintenance cost and hence a low

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lifecycle cost of ownership. The tank is gravity fed and has a zero-energy requirement for the septic treatment process lifecycle. Inspection of the three septic tanks will be performed by the facility manager on a weekly basis. Sludge build up will be removed as and when required, but typically will be approximately 3-year intervals. Sludge will be removed to the Hartenbos regional wastewater treatment works.

Roads and access

Access

Current and proposed access to the development is obtained via Nagtegaal Street. Sight distances at the access point are excellent and satisfactory for development purposes in both the vertical and horizontal alignments.

Internal Standards and Design Criteria

Internal standards and design criteria are specified as follows:

- Main internal road (isle) width of 12m
- Internal road (isle) widths of 6.5m
- Main internal road surface to be high permeability paving
- Internal roads to be grass blocks
- Pavement structural materials to be imported from commercial sources.

Traffic Impact Statement

A Traffic Impact Statement (TIS) has been performed in a separate report. The trip generation of the eventual fully developed proposed development is estimated at less than 50 trips per peak hour. The traffic impact of the proposed development will be negligible from a traffic engineering perspective.

Stormwater

No municipal stormwater infrastructure is present in the larger vicinity of the site and a formal stormwater system can thus not be designed to connect to a municipal system. Similarly, a natural drainage line is not available to design to. This is problematic from an engineering perspective as attenuation will have to be facilitated on site.

Attenuation will be achieved firstly through high surface water infiltration infrastructure, e.g. grass blocks, that will be provided throughout the site to address stormwater ingress. Secondly, hard surfaces need to be minimized as far as possible and where not possible, i.e on the main ring road, high-permeable paving shall be provided. Thirdly, roof rainwater flow-off shall be accumulated in rainwater tanks of minimum 20kl per large roof (1,847m2) and 10kl per smaller roof (avg 900m2) to attenuate stormwater roof run-off.

Notwithstanding all of the above, surface stormwater movement will be slow due to flat gradients on site. Energy dissipation will be performed as standard practice with grass blocks as discussed above. No stormwater will be concentrated and piped, other than from roof run-off which will be attenuated in rainwater tanks.

The integrated stormwater and road system form an integral part of layout planning. The system rests on three legs, namely the minor system, the major system and the emergency system. Minor storms and normal flowoff are catered for in the normal road prism. Major storms are routed through a linked system of road prisms and public open spaces, using attenuation techniques. The emergency system recognizes failure of the minor and major systems and provides for emergency runoff by providing continuous overland flow routes to minimize flooding of residential areas.

The following standards and design criteria are envisaged:

- Minor system designed for 2-year return period and conveyed in a combination of maximum 20mm aboveground in the road prism.
- Major system designed for 50-year return period. Difference between the 50 year and 2-year flood to be conveyed in the road prism with depths not exceeding 150mm and into designated public open spaces, using attenuation techniques.
- No stormwater will be concentrated or piped.

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All designs will be confirmed with the municipality during the detail design stage and submitted for approval prior to construction.

The proposed development site has only one drainage route. The site drains to a general eastern direction. Gradients are flat.

Solid Waste

A formal solid waste collection area will be provided. According to the engineering report a formal arrangement for the removal of solid waste needs to be entered into with the Mossel Bay Municipality.

With reference to all of the conclusions above, it can holistically be concluded that the proposed development can be designed and constructed to acceptable specifications and standards from an engineering design perspective. Therefore, it has been recommended that:

- all conceptual and preliminary design specifications and standards be accepted and approved.
- all detail designs be performed to the satisfaction of the local municipality, in line with the proposals contained in the report.

It is the holistic recommendation that the proposed development be approved from an engineering design perspective.

EIA TRIGGERED ACTIVITIES

According to the National Environmental Management Act, 1998 (Act 107 of 1998), Environmental Impact Assessment Regulations, 2014 (as amended 07th April 2017), Listing Notice 1 of 2014, published under Government Notice No. 983, the following activities are applicable:

Table 1: Proposed Listed Activities.

Activity No(s):	Provide the relevant Basic Assessment Activity(ies) as set out in Listing Notice 1	Describe the portion of the proposed development to which the applicable listed activity relates.
27	The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for— (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	The proposed footprint is approximately 7ha, located on a natural area. Therefore, this activity is applicable.
Activity No(s):	Provide the relevant Basic Assessment Activity(ies) as set out in Listing Notice 3	Describe the portion of the proposed development to which the applicable listed activity relates.
4	The development of a road wider than 4 metres with a reserve less than 13,5 metres. i. Western Cape i. Areas zoned for use as public open space or equivalent zoning; ii. Areas outside urban areas; (aa) Areas containing indigenous vegetation; (bb) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or	According to the engineering report the proposed development will accommodate a main internal road width of 12m, and internal road widths of 6.5m, on a site that contains indigenous vegetation, as confirmed by the Botanical Specialist.

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		(aa) Areas zoned for conservation use; or (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority.	
1	2	The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.	
		i. Western Cape i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; ii. Within critical biodiversity areas identified in bioregional plans; iii. Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas; iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning; or v. On land designated for protection or conservation purposes in an Environmental Management Framework adopted in the prescribed manner, or a Spatial Development Framework adopted by the MEC or Minister.	According to the Botanical Assessment the development proposal will result in the entire site being developed, implying that approximately 6 ha of good quality fynbos (i.e. North Langeberg Sandstone Fynbos) will be cleared. North Langeberg Sandstone Fynbos is not listed as a threatened vegetation type. However, if the fragment, located between Albertinia and Mossel Bay, is allocated to a new fynbos type, its conservation status may be less favourable.

Based on the latest Department of Environmental Affairs Screening Tool report, dated 08th April 2021, the following sensitivities were identified on site:

Table 2: Screening Tool Sensitivities

THEME	VERY HIGH SENSITIVITY	HIGH SENSITIVITY	MEDIUM SENSITIVITY	LOW SENSITIVITY
Agriculture Theme.			Х	
Animal Species Theme.		X		
Aquatic Biodiversity	Х			
Theme.				
Archaeological and				Χ
Cultural Heritage				
Civil Aviation Theme.		X		
Palaeontology Theme.		Х		
Plant Species Theme.			Χ	
Defence Theme.				Х
Terrestrial Biodiversity	Х			
Theme.				

The following specialists will be appointed to inform the BAR:

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- Avifaunal Specialist
- Butterfly Specialist
- Botanical Specialist
- Aquatic Specialist

According to the specialist findings, the following can be concluded:

• Avifaunal Compliance Statement:

It was concluded that the proposed development will not have any detrimental impact on any threatened and Near Threated birds or their breeding and feeding habitats.

The specialist has made mention of a potential Aquatic ESA, however this was disproved by the Aquatic Specialist.

Aquatic Compliance Statement

It was concluded that no aquatic habitat was identified within the boundaries of the proposed site, and there is no aquatic habitat present within 500m of the site.

It was determined that the site has a very Low aquatic sensitivity status and the proposed development will not impact on aquatic biodiversity.

• Agricultural Compliance Statement

It has been confirmed that the entire site is of medium sensitivity for agriculture, because of its land capability. The site is not used for productive agriculture. The fact that the area has already been subdivided into small parcels of land and is within an area of non-agricultural development, is a significant limitation to its future potential for agricultural production.

The agricultural impact of the proposed development will be to permanently exclude agriculture from the land parcel. The conclusion of this assessment is that the proposed development will not have an unacceptable negative impact on the agricultural production capability of the site. This is substantiated by the fact that the proposed development will occupy land that is not currently utilised for any agricultural production, and also has no future production potential. The limitations on future potential are due to the very small size of the land parcel, which makes agriculture non economically viable, and its location surrounded by small parcels of land with non-agricultural land use.

The proposed development is therefore acceptable, and from an agricultural impact point of view, it is recommended that the development be approved.

Botanical Survey

It has been determined that the entire site will be cleared for the purpose of the development, resulting in the loss of good quality fynbos (i.e. North Langeberg Sandstone Fynbos). Mitigation in such an instance will be impossible to achieve unless some of the plant material, e.g. bulbs, succulents and topsoil containing fynbos seeds, can be salvaged and reintroduced elsewhere in the area where it can aid rehabilitation and conservation efforts.

North Langeberg Sandstone Fynbos is not listed as a threatened vegetation type. It is seemingly well represented and protected in the region. However, if the fragment, located between Albertinia and Mossel Bay, is allocated to a new fynbos type, its conservation status may be less favourable. As it currently stands, the perceived impact on vegetation type is of low to moderate concern. The impact on the biodiversity (CBA) network is also of concern but is probably of the same order as for the vegetation type. The mapped aquatic ESA through the western end of the site seems artificial as no visible watercourse or wetland features were noted on site.

The impact on SCC is more difficult to assess, since it is currently unknown if certain sensitive species (654 and 1024), as listed in the Screening Report, occur on the property. At least one SCC will be directly impacted, namely *Hermannia lavandulifolia*. It is, however, still abundant and frequently

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encountered by the author and others in the Mossel Bay area

The following recommendations/mitigation measures were advised, with regards to the proposed development and way forward:

- If the entire site is to be developed, consideration should be given to the salvage of plant material (e.g. bulbs, succulents and topsoil containing fynbos seeds), to be reintroduced elsewhere in the Aalwyndal area where it can aid rehabilitation and conservation efforts. Obviously this can only be achieved if a suitable (similar) receiving area can be found in the area. The summer months should be avoided for search and rescue efforts.
- Strict control must be exercised to avoid the harming/catching of wildlife in the area during the construction phase. Tortoises (noted on site by the author) should be rescued and relocated to a safe haven elsewhere in the Aalwyndal area.
- Butterfly Sensitivity Study

The proposed development area at Aalwyndal Erf 21275 was rated by the Screening Tool as being of "Medium" sensitivity, because of the possibility of the occurrence of a butterfly species of conservation concern (Lepidochrysops littoralis). An earlier investigation revealed that there is a second SCC which could possibly occur on the site (Aloeides trimenii southeyae). However, during a focused butterfly survey carried out during the flight periods of these two butterflies (October/November) no individuals were found. Consequently, it can be concluded that:

- Since the SCC butterflies have not been found at the site the sensitivity for the terrestrial animal species (butterflies) can now be reduced to "Low" sensitivity.
- There are therefore no impact management actions and outcomes, or any monitoring requirements for inclusion in the Environmental Management Programme.

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IMPORTANT INFORMATION TO BE READ PRIOR TO COMPLETING THIS BASIC ASSESSMENT REPORT

- 1. **The purpose** of this template is to provide a format for the Basic Assessment report as set out in Appendix 1 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended) in order to ultimately obtain Environmental Authorisation.
- 2. The Environmental Impact Assessment ("EIA") Regulations is defined in terms of Chapter 5 of the National Environmental Management Act, 19998 (Act No. 107 of 1998) ("NEMA") hereinafter referred to as the "NEMA EIA Regulations".
- 3. The required information must be typed within the spaces provided in this Basic Assessment Report ("BAR"). The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided.
- 4. All applicable sections of this BAR must be completed.
- 5. Unless protected by law, all information contained in, and attached to this BAR, will become public information on receipt by the Competent Authority. If information is not submitted with this BAR due to such information being protected by law, the applicant and/or Environmental Assessment Practitioner ("EAP") must declare such non-disclosure and provide the reasons for believing that the information is protected.
- 6. This BAR is current as of **November 2019**. It is the responsibility of the Applicant/ EAP to ascertain whether subsequent versions of the BAR have been released by the Department. Visit this Department's website at http://www.westerncape.gov.za/eadp to check for the latest version of this BAR.
- 7. This BAR is the standard format, which must be used in all instances when preparing a BAR for Basic Assessment applications for an environmental authorisation in terms of the NEMA EIA Regulations when the Western Cape Government Department of Environmental Affairs and Development Planning ("DEA&DP") is the Competent Authority.
- 8. Unless otherwise indicated by the Department, one hard copy and one electronic copy of this BAR must be submitted to the Department at the postal address given below or by delivery thereof to the Registry Office of the Department. Reasonable access to copies of this Report must be provided to the relevant Organs of State for consultation purposes, which may, if so indicated by the Department, include providing a printed copy to a specific Organ of State.
- 9. This BAR must be duly dated and originally signed by the Applicant, EAP (if applicable) and Specialist(s) and must be submitted to the Department at the details provided below.
- 10. The Department's latest Circulars pertaining to the "One Environmental Management System" and the EIA Regulations, any subsequent Circulars, and guidelines must be taken into account when completing this BAR.
- 11. Should a water use licence application be required in terms of the National Water Act, 1998 (Act No. 36 of 1998) ("NWA"), the "One Environmental System" is applicable, specifically in terms of the synchronisation of the consideration of the application in terms of the NEMA and the NWA. Refer to this Department's Circular EADP 0028/2014: One Environmental Management System.
- 12. Where Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA") is triggered, a copy of Heritage Western Cape's final comment must be attached to the BAR.
- 13. The Screening Tool developed by the National Department of Environmental Affairs must be used to generate a screening report. Please use the Screening Tool link https://screening.environment.gov.za/screeningtool to generate the Screening Tool Report. The screening tool report must be attached to this BAR.

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14. Where this Department is also identified as the Licencing Authority to decide on applications under the National Environmental Management: Air Quality Act (Act No. 29 of 2004) ('NEM:AQA"), the submission of the Report must also be made as follows, for-Waste Management Licence Applications, this report must also (i.e., another hard copy and electronic copy) be submitted for the attention of the Department's Waste Management Directorate (Tel: 021-483-2728/2705 and Fax: 021-483-4425) at the same postal address as the Cape Town Office.

Atmospheric Emissions Licence Applications, this report must also be (i.e., another hard copy and electronic copy) submitted for the attention of the Licensing Authority or this Department's Air Quality Management Directorate (Tel: 021 483 2888 and Fax: 021 483 4368) at the same postal address as the Cape Town Office.

DEPARTMENTAL DETAILS

CAPE TOWN OFFICE: REGION 1 and REGION 2 (Region 1: City of Cape Town, West Coast District) (Region 2: Cape Winelands District & Overberg District)	GEORGE OFFICE: REGION 3 (Central Karoo District & Garden Route District)
BAR must be sent to the following details:	BAR must be sent to the following details:
Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 1 or 2) Private Bag X 9086 Cape Town, 8000	Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 3) Private Bag X 6509 George, 6530
Registry Office 1st Floor Utilitas Building 1 Dorp Street, Cape Town	Registry Office 4 th Floor, York Park Building 93 York Street George
Queries should be directed to the Directorate: Development Management (Region 1 and 2) at: Tel: (021) 483-5829 Fax (021) 483-4372	Queries should be directed to the Directorate: Development Management (Region 3) at: Tel: (044) 805-8600 Fax (044) 805 8650

MAPS

Provide a location map (see below) as Appendix A1 to this BAR that shows the location of the proposed development and associated structures and infrastructure on the property.

Locality Map:

The scale of the locality map must be at least 1:50 000.

For linear activities or development proposals of more than 25 kilometres, a smaller scale e.g., 1:250 000 can be used. The scale must be indicated on the map.

The map must indicate the following:

- an accurate indication of the project site position as well as the positions of the alternative sites, if any;
- road names or numbers of all the major roads as well as the roads that provide access to the site(s)
- a north arrow;
- a legend; and
- a linear scale.

For ocean based or aquatic activity, the coordinates must be provided within which the activity is to be undertaken and a map at an appropriate scale clearly indicating the area within which the activity is to be undertaken.

Where comment from the Western Cape Government: Transport and Public Works is required, a map illustrating the properties (owned by the Western Cape Government: Transport and Public Works) that will be affected by the proposed development must be included in the Report.

Provide a detailed site development plan / site map (see below) as Appendix B1 to this BAR; and if applicable, all alternative properties and locations.

Site Plan: Detailed site development plan(s) must be prepared for each alternative site or alternative activity.

The site plans must contain or conform to the following: The detailed site plan must preferably be at a scale of 1:500 or at an appropriate scale. The scale must be clearly indicated on the plan, preferably together with a linear scale, The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan. On land where the property has not been defined, the co-ordinates of the area in which the proposed activity or development is proposed must be provided. The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be clearly indicated on the site plan. The position of each component of the proposed activity or development as well as any other structures on the site must be indicated on the site plan. Services, including electricity supply cables (indicate aboveground or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the proposed development <u>must</u> be clearly indicated on the site plan. Servitudes and an indication of the purpose of each servitude must be indicated on the site plan. Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to): Watercourses / Rivers / Wetlands Flood lines (i.e., 1:100 year, 1:50 year and 1:10 year where applicable); Coastal Risk Zones as delineated for the Western Cape by the Department of Environmental Affairs and Development Planning ("DEA&DP"): Ridges: Cultural and historical features/landscapes; Areas with indigenous vegetation (even if degraded or infested with alien species). Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted. North arrow A map/site plan must also be provided at an appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred and alternative sites indicating any areas that should be avoided, including buffer areas. Site photographs Colour photographs of the site that shows the overall condition of the site and its surroundings (taken on the site and taken from outside the site) with a description of each photograph. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide a recent aerial photograph. Photographs must be attached to this BAR as Appendix C. The aerial photograph(s) should be supplemented with additional photographs of relevant features on the site. Date of photographs must be included. Please note that the above requirements must be duplicated for all alternative sites. Biodiversity A map of the relevant biodiversity information and conditions must be provided as an overlay map on Overlay Map: the property/site plan. The Map must be attached to this BAR as Appendix D. Linear activities or GPS co-ordinates must be provided in degrees, minutes and seconds using the Hartebeeshoek 94 development and WGS84 co-ordinate system. multiple properties Where numerous properties/sites are involved (linear activities) you must attach a list of the Farm Name(s)/Portion(s)/Erf number(s) to this BAR as an Appendix. For linear activities that are longer than 500m, please provide a map with the co-ordinates taken every 100m along the route to this BAR as Appendix A3.

ACRONYMS

DAFF:	Department of Forestry and Fisheries
DEA:	Department of Environmental Affairs
DEA& DP:	Department of Environmental Affairs and Development Planning
DHS:	Department of Human Settlement
DoA:	Department of Agriculture
DoH:	Department of Health
DWS:	Department of Water and Sanitation
EMPr:	Environmental Management Programme
HWC:	Heritage Western Cape
NFEPA:	National Freshwater Ecosystem Protection Assessment
NSBA:	National Spatial Biodiversity Assessment
TOR:	Terms of Reference
WCBSP:	Western Cape Biodiversity Spatial Plan
WCG:	Western Cape Government

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ATTACHMENTS

Note: The Appendices must be attached to the BAR as per the list below. Please use a \checkmark (tick) or a x (cross) to indicate whether the Appendix is attached to the BAR.

The following checklist of attachments must be completed.

APPENDIX			√ (Tick) o x (cross)
	Maps		(2.2.2.)
	Appendix A1:	Locality Map	✓
Appendix A:	Appendix A2:	Coastal Risk Zones as delineated in terms of ICMA for the Western Cape by the Department of Environmental Affairs and Development Planning	N/A
	Appendix A3:	Map with the GPS co-ordinates for linear activities	X
	Appendix B1	Site development plan(s)	
	Appendix B1.1:	Proposed Preferred Alternative 1 Layout	✓
Appendix B:	Appendix B1.2:	Proposed Alternative 2 Layout	✓
Appendix b.	Appendix B2	A map of appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffer areas;	
Appendix C:	Photographs		
Appendix D:	Biodiversity overlay map		✓
		se(s) / exemption notice, agreements, comment ans of state and service letters from the municipality.	
	Appendix E1:	Final comment/ROD from HWC	TBD
	Appendix E2:	Copy of comment from Cape Nature	TBD
	Appendix E3:	Final Comment from the DWS	TBD
Appendix E:	Appendix E4:	Comment from the DEA: Oceans and Coast	N/A
	Appendix E5:	Comment from the DAFF	TBD
			TBD
	Appendix E6:	Comment from WCG: Transport and Public Works	100

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	Appendix E8:	Comment from WCG: DHS	N/A
	Appendix E9:	Comment from WCG: DoH	N/A
	Appendix E10:	Comment from DEA&DP: Pollution Management	TBD
	Appendix E11:	Comment from DEA&DP: Waste Management	TBD
	Appendix E12:	Comment from DEA&DP: Biodiversity	TBD
	Appendix E13:	Comment from DEA&DP: Air Quality	N/A
	Appendix E14:	Comment from DEA&DP: Coastal Management	N/A
	Appendix E15:	Comment from the local authority	TBD
	Appendix E16:	Confirmation of all services (water, electricity, sewage, solid waste management)	TBD
	Appendix E17:	Comment from the District Municipality	TBD
	Appendix E18:	Copy of an exemption notice	N/A
	Appendix E19	Pre-approval for the reclamation of land	N/A
	Appendix E20:	Proof of agreement/TOR of the specialist studies conducted.	TBD
	Appendix E21:	Proof of land use rights	N/A
	Appendix E22:	Proof of public participation agreement for linear activities	N/A
	comments and res	n information: including a copy of the register of I&A ponses Report, proof of notices, advertisements an n information as is required.	
Appendix F:	Appendix F.1:	Interested and Affected Party (I&AP) Register (Automatic)	✓
	Appendix F.2:	Public Participation Plan	✓
Appendix G:	Specialist Report(s)		

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	Appendix G.1:	Aquatic Compliance Statement	✓
	Appendix G.2:	Agricultural Compliance Statement	✓
	Appendix G.3:	Avifaunal Compliance Statement	✓
	Appendix G.4:	Biodiversity survey	✓
	Appendix G.5:	Butterfly Study	✓
Appendix H:	EMPr		✓
Appendix I:	Screening tool report		✓
Appendix J:	The impact and risk	c assessment for each alternative	X
Appendix K:	Need and desirability for the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013)/DEA Integrated Environmental Management Guideline		X
Appendix	Any other attachm appendices	ents must be included as subsequent	
Appendix L:	Technical Reports		✓

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SECTION A: ADMINISTRATIVE DETAILS

	CAPE TOWN OFFICE:		GEORGE OFFICE:			
Highlight the Departmental		REGION	V 2			
Region in which the intended application will fall	REGION 1			REGION 3		
аррисанот миган	(City of Cape Town,	(Cape Winelands District &		(Central Karoo District & Garden Route District)		
	West Coast District	Overberg [Garagii Reele Bisilieli,		
Duplicate this section where						
there is more than one Proponent						
Name of	Storage Mossel Bay	Storage Mossel Bay (Pty) Ltd.				
Applicant/Proponent:						
Name of contact person for Applicant/Proponent (if	Kaye Smith					
other):	- ,					
Company/ Trading name/State	Storage Mossel Bay	(Ptv)Itd				
Department/Organ of State:						
Company Registration	Reg No. 2007/00139	9/07				
Number:	Keerom Street 4,					
Postal address:	Mossel Bay					
			Postal co	ode: 6500		
Telephone:	()			2 346 8840		
E-mail:	storagemosselbay@	gmail.com	Fax: (
Company of EAP:	Sharples Environmen	ntal Services	СС			
EAP name:	John Sharples ¹					
6	Ameesha Sanker ²					
Postal address:	PO BOX 443, Milnert	on.	Postal	estal and of 7425		
Telephone:	(021) 554 5195		Postal code: 7435 Cell: 072 126 0161			
E-mail:	ameesha@sescc.net			36) 575 2869		
Qualifications:		BSc Geological Science and BSc (Hons) Environmental				
EAPASA registration no:	John Sharples ¹ EAPA					
Duplicate this section where there is more than one						
landowner	Storage Mossel Bay	(Pty)Ltd.				
Name of landowner:	,					
Name of contact person for landowner (if other):	Kaye Smith					
Postal address:	As above					
				ode: 6500		
Telephone:	()			2 346 8840		
E-mail:	storagemosselbay@	-	Fax: (
Name of Person in control of	Storage Mossel Bay					
the land: Name of contact person for	Reg No. 2007/00139	7/U/				
person in control of the land:	Keerom Street 4,					
Postal address:	Mossel Bay					
	, ,		000	20110010		
Telephone:			Cell: 082 346 8840			
E-mail:	storagemosselbay@	gmail.com	siorage	emosselbay@gmail.com		
Duplicate this section where						
there is more than one Municipal Jurisdiction						
Municipality in whose area of						
jurisdiction the proposed						
activity will fall: Contact person:				anager)		
Postal address:	101 Marsh Street, Ma	•	<u> </u>	····~9~·1		
	Postal code: 6500					

GEORGE OFFICE:

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Telephone	(044) 606-5082	Cell:
E-mail:	dnaidoo@mosselbav.aov.za	Fax:

SECTION B: CONFIRMATION OF SPECIFIC PROJECT DETAILS AS INLCUDED IN THE **APPLICATION FORM**

1.	Is the proposed develop tick):	ment (please	New	\checkmark	Expansion		
2.	Is the proposed site(s) a brownfield of greenfield site? Please explain.						
	This is a brownfield site as there is existing infrastructure, and services on the site and it was previously used for agricultural purposes.						
3.	For Linear activities or deve	elopments					
3.1.	Provide the Farm(s)/Farm P	ortion(s)/Erf nun	nber(s) for all routes	÷			
3.2.	Development footprint of t	he proposed de	evelopment for all a	Iternatives.		—m²	
						·	
3.3.	Provide a description of the case of pipelines indicate t				n, width and width of	the road reserve in the	
3.4.	Indicate how acces	ss to the propos	ed routes will be ob	tained for all alte	ernatives.		
I	00 5: :1 1 1			 			
3.5.	SG Digit codes of the Farms/Farm Portions/Erf numbers for all alternatives						
3.6.	Starting point co-ordinates	for all alternativ	' es				
	Latitude (S)	<u>o</u>	4		44		
•	Longitude (E)	<u>o</u>	<u>i</u>		<u>"</u>		
,	Middle-point co-ordinates	for all alternativ	es		1		
•	Latitude (S)	<u>o</u>	<u>i</u>		<u>"</u>		
	Longitude (E)	<u>o</u>	<u>4</u>		<u>u</u>		
	End point co-ordinates for a	all alternatives	1		1		
	Latitude (S)	<u>o</u>	<u> </u>		<u>"</u>		
•	Longitude (E)	<u>o</u>	<u> </u>		<u>u</u>		
Note	For Linear activities or deve	elopments longe	er than 500m, a ma	o indicating the	co-ordinates for ever	y 100m along the route	
	be attached to this BAR as A	Appendix A3.					
4.	Other developments						
4.1.	Property size(s) of all proposed site(s): 77 529m ²						
4.2.	 Developed footprint of the existing facility and associated infrastructure (if applicable): 						
4.3.	3. Development footprint of the proposed development and associated infrastructure size(s) for all Approximately alternatives: Approximately 77 529m ²						
4.4.	Provide a detailed description of the proposed development and its associated infrastructure (This must include details of						
The	proposed developmer	nt site is situa	ted in Aalwyndo	al on ERE 212	75 Portion 240 V	vf Braakke Fontein	

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• The construction of a storage facility, extending across Erf 21275, accommodating

Farm, approximately 13km's north-west of Mossel Bay Central. It is approximately 77 521m2 in size, is zoned as Residential Zone I, and is intended to be rezoned to Light Industrial, to accommodate the

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proposed development.

The proposed development will entail:

approximately 1 832 storage units of varying sizes, that will be used for the storage of private goods, including but not limited to furniture, caravans, equipment, etc, as well to be utilized for airport storage. Unit sizes proposed:

- 158 x (±3mx3m)
- 1674 x (±3mx6m)
- Construction of:
 - A 39m² office with male and female toilet and hand wash basin. Inclusive of small kitchenette for office staff.
 - A 57m² guardhouse with toilet and hand wash basin.
 - A 97m² caretaker flat.
- Construction of a 2.4m Palisade fence with Electrical fence over (perimeter fence).
- Approximately 346 parking spaces will be provided, with an additional 8 visitors parking.
- Dust free interlocking paving and grass blocks.



Figure 5: Proposed layout plan (Belvedere Architects, 2021).

The construction of the proposed storage facility will occur in an area that has been earmarked for development, in accordance with the Local Spatial Development Plan, dated January 2018, as per Figure 3 below:

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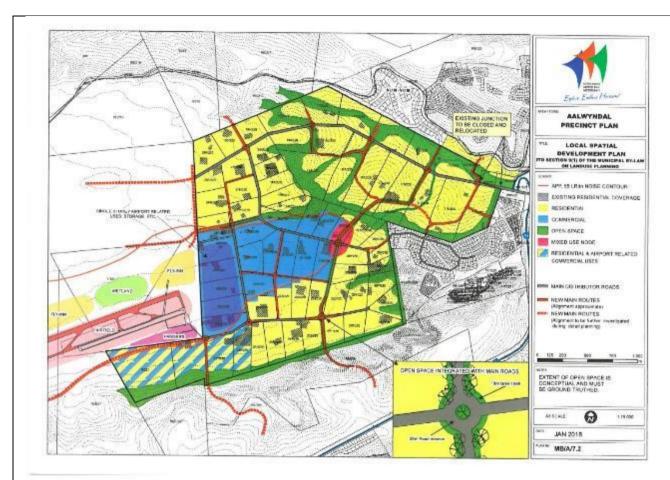


Figure 6: Aalwyndal precinct plan (Local Spatial Development Plan, June 2018)

The site is located directly east of the Mossel Bay Airfield and is bounded to the south and north by smallholdings. Current and proposed access to the development is obtained via Nagtegaal Street. The property in question, along with the northern, southern and eastern adjacent properties, are intended to be rezoned, with ERF 21275 and the northern and southern neighbouring properties potentially accommodating warehouses/storage facilities, that can be utilized by the neighbouring Mossel Bay Airport, as well as for public use.

The site is currently used for small-scale cultivation, horse grazing, and does accommodate some woody alien invasive species. However, the site contains good quality fynbos and as determined by the Botanical Specialist, at least one Species of Conservation Concern.

ENGINEERING SERVICES (As extracted from the Engineering Report (Appendix K)

Development concept from and engineering services perspective

Although the proposed development footprint is quite large, the development will have a negligible impact on engineering services. This is due to the fact that the development of the private storage spaces will not provide for any engineering services to the storage spaces. Engineering services will only be required for the following infrastructure at the gate:

- 39m² office with male and female toilet and hand wash basin. Inclusive of small kitchenette for office staff.
- 57m² guardhouse with toilet and hand wash basin.
- 97m² caretaker flat.

The above is further underlined by the fact that no activity will be allowed at the stores, i.e. tenants may not work at the storage spaces, ensuring that the stores do not become in fact an industrial area but will remain as intended, namely a private storage space.

Water

Demand

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The Average Annual Daily Demand (AADD) for this proposed development in line with accepted design consumptions, assumptions, criteria and standards, is calculated and estimated at a negligible 2 kl/day. Peak factors are negligible.

Availability

Discussions were held with municipal officials in that the proposed development will have a negligible impact on bulk water availability. The development will in fact have a bulk water demand similar to the existing structures on the property. No additional bulk water is hence required.

Connection Point

The site is serviced by a municipal 90mm uPVC water line along Nagtegaal Street. The existing connection to the erf will be utilized and will be sufficient.

Sewer

Bulk sewer and connection point

A municipal sewer network is not available in the wider area of Aalwyndal and the property is hence not serviced with a municipal sewer connection. The current houses on the property utilize a septic tank and soak-away.

Design flow

The Average Dry Weather Flow (ADWF) of the development, in line with accepted design criteria and standards, can be calculated and estimated as 2kl/day, divided between the three facilities, i.e. the office, guardhouse and caretaker flat.

Sewage treatment solution

A septic tank with soakaway will be provided at each of the three facilities, i.e. the office, guardhouse and caretaker flat.

Operation & Maintenance of septic tanks

A septic tank has a low capital cost outlay, a low operational & maintenance cost and hence a low lifecycle cost of ownership. The tank is gravity fed and has a zero-energy requirement for the septic treatment process lifecycle. Inspection of the three septic tanks will be performed by the facility manager on a weekly basis. Sludge build up will be removed as and when required, but typically will be approximately 3-year intervals. Sludge will be removed to the Hartenbos regional wastewater treatment works.

Roads and access

Access

Current and proposed access to the development is obtained via Nagtegaal Street. Sight distances at the access point are excellent and satisfactory for development purposes in both the vertical and horizontal alignments.

Internal Standards and Design Criteria

Internal standards and design criteria are specified as follows:

- Main internal road (isle) width of 12m
- Internal road (isle) widths of 6.5m
- Main internal road surface to be high permeability paving
- Internal roads to be arass blocks
- Pavement structural materials to be imported from commercial sources.

Traffic Impact Statement

A Traffic Impact Statement (TIS) has been performed in a separate report. The trip generation of the eventual fully developed proposed development is estimated at less than 50 trips per peak hour. The traffic impact of the proposed development will be negligible from a traffic engineering perspective.

Stormwater

No municipal stormwater infrastructure is present in the larger vicinity of the site and a formal stormwater system can thus not be designed to connect to a municipal system. Similarly, a natural drainage line is not available to design to. This is problematic from an engineering perspective as attenuation will have to be facilitated on site.

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Attenuation will be achieved firstly through high surface water infiltration infrastructure, e.g. grass blocks, that will be provided throughout the site to address stormwater ingress. Secondly, hard surfaces need to be minimized as far as possible and where not possible, i.e on the main ring road, high-permeable paving shall be provided. Thirdly, roof rainwater flow-off shall be accumulated in rainwater tanks of minimum 20kl per large roof (1,847m2) and 10kl per smaller roof (avg 900m2) to attenuate stormwater roof run-off.

Notwithstanding all of the above, surface stormwater movement will be slow due to flat gradients on site. Energy dissipation will be performed as standard practice with grass blocks as discussed above. No stormwater will be concentrated and piped, other than from roof run-off which will be attenuated in rainwater tanks.

The integrated stormwater and road system form an integral part of layout planning. The system rests on three legs, namely the minor system, the major system and the emergency system. Minor storms and normal flowoff are catered for in the normal road prism. Major storms are routed through a linked system of road prisms and public open spaces, using attenuation techniques. The emergency system recognizes failure of the minor and major systems and provides for emergency runoff by providing continuous overland flow routes to minimize flooding of residential areas.

The following standards and design criteria are envisaged:

- Minor system designed for 2-year return period and conveyed in a combination of maximum 20mm aboveground in the road prism.
- Major system designed for 50-year return period. Difference between the 50 year and 2-year flood to be conveyed in the road prism with depths not exceeding 150mm and into designated public open spaces, using attenuation techniques.
- No stormwater will be concentrated or piped.

All designs will be confirmed with the municipality during the detail design stage and submitted for approval prior to construction.

The proposed development site has only one drainage route. The site drains to a general eastern direction, Gradients are flat.

Solid Waste

A formal solid waste collection area will be provided. According to the engineering report a formal arrangement for the removal of solid waste needs to be entered into with the Mossel Bay Municipality.

With reference to all of the conclusions above, it can holistically be concluded that the proposed development can be designed and constructed to acceptable specifications and standards from an engineering design perspective. Therefore, it has been recommended that:

- all conceptual and preliminary design specifications and standards be accepted and approved.
- all detail designs be performed to the satisfaction of the local municipality, in line with the proposals contained in the report.

It is the holistic recommendation that the proposed development be approved from an engineering design perspective.

4.5. Indicate how access to the proposed site(s) will be obtained for all alternatives.

Access will be obtained via the existing entrance off Nagtegaal Street, located along the eastern boundary of the proposed erf.

4.6.	SG Digit code(s) of the proposed site(s) for all alternatives:	С	0	5	1	0	0	0	7	0	0	0	2	1	2	7	5	0	0	0	0	0
	alternatives:																					

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	Coordinates of the proposed site(s) for all alternatives:								
1.7.	Latitude (S)	34°	9'	19.0"					
.,,	Longitude (E)	22°	3'	52.26"					

SECTION C: LEGISLATION/POLICIES AND/OR GUIDELINES/PROTOCOLS

1. Exemption applied for in terms of the NEMA and the NEMA EIA Regulations

Has exemption been applied for in terms of the NEMA and the NEMA EIA Regulations. If yes,	VEC	NO
include a copy of the exemption notice in Appendix E18.	I E3	NO

2. Is the following legislation applicable to the proposed activity or development.

The National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) ("ICMA"). If yes, attach a copy of the comment from the relevant competent authority as Appendix E4 and the pre-approval for the reclamation of land as Appendix E19.	YES	NO
The National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA"). If yes, attach a copy of the comment from Heritage Western Cape as Appendix E1.	YES	NO
The National Water Act, 1998 (Act No. 36 of 1998) ("NWA"). If yes, attach a copy of the comment from the DWS as Appendix E3.	YES	NO
The National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEM:AQA"). If yes, attach a copy of the comment from the relevant authorities as Appendix E13.	YES	NO
The National Environmental Management Waste Act (Act No. 59 of 2008) ("NEM:WA")	YES	NO
The National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004 ("NEMBA").	YES	NO
The National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) ("NEMPAA").	YES	NO
The Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983). If yes, attach comment from the relevant competent authority as Appendix E5.	YES	NO

3. Other legislation

List any other legislation that is applicable to the proposed activity or development.

- Spatial Planning Land Use Management Act 16 of 2013.
- Amended By-Law on Municipal Land Use Planning and Amended Integrated Zoning Scheme By-Law, Extraordinary Provincial Gazette 8179, dated 15 November 2019.
 - Consideration towards this by-law is to be taken when applying for the rezoning of Erf 21275.
- By-Law relating to Public Nuisances Amendment
 - Consideration towards this this by-law is to be taken when providing mitigation measures aimed at preventing public nuisances. This includes noise, traffic, dust and odour.
- Nature Conservation Ordinance, 1974 (Ordinance 19 of 1974) (Section 62)
 - Stating that, "no person without a permit shall be in possession of any endangered flora in the Western Cape. They may also not sell, buy, donate, receive as a donation or pick endangered flora in the province or import it into, export it from or transport it in or through the province without a permit."
 - It has been recommended in the Botanical Survey, 2021, undertaken for this development, that plant material, e.g. bulbs, succulents and topsoil containing fynbos seeds, should be salvaged and reintroduced elsewhere in the area where it can aid rehabilitation and conservation efforts. Therefore, a permit will be required to remove the endangered sensitive species 1024, should be noted on site, following the follow-up site survey, undertaken by the Botanical Specialist, during late Winter-Spring. CapeNature has been included in the Public Participation

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process to advise on this.

- Civil Aviation Act, 2009 (Act No 13 of 2009), Civil Aviation Regulations, 2011 (Extract) Obstacle limitations and markings outside aerodrome or heliport. 139.01.30
- The proposed development will require consent in terms of the Civil Aviation Regulations, 2011, as the activity will entail the construction of a protruding structure, include light poles, however this is in line with the surrounding development. Compliance with the relevant regulations are highlighted in the table below.

Table 3: Proposed development compliance with Civil Aviation Regulations, 2011.

Civil Aviation Regulations, 2011 (Extract) Obstacle	Will the proposed
limitations and markings outside aerodrome or heliport.	development
139.01.30	require consent
	Yes (Y) / No (N))
(1) All objects, whether temporary or permanent, which	Y
project above the horizontal surface within a specified	
radius of 8 kilometres as measured from the aerodrome	
reference point should be marked as specified in	
Document SA-CATS 139.	
(2) Any other object which projects the horizontal surface	Y
beyond these radii or above the conical surface and	
which constitutes a potential hazard to aircraft must be	
marked as specified in Document SA-CATS 139.	
(3) Buildings or other objects which will constitute an	Υ
obstruction or potential hazard to aircraft moving in the	
navigable air space in the vicinity of an aerodrome, or	
navigation aid, or which will adversely affect the	
performance of the radio navigation or instrument lading	
systems, must not be erected or allowed to come into	
existence without the prior approval of the Director.	
(4) No buildings or objects higher than 45 metres above the	N
mean level of the landing area, or, in the case of a water	
aerodrome or heliport, the normal level of the water, must	
without the approval of the Director be erected within a	
distance of 8 kilometre measured from the nearest point on	
the boundary of an aerodrome or heliport.	
(5) No building, structure or object which projects above a	Y
slope of 1 in 20 and which is within 3000 metres measured	
from the nearest point on the boundary of an aerodrome	
or heliport must, without the prior approval of the Director	
be erected or be allowed to come into existence.	_
(6) No building, structure or other object which will project	N
above the approach, transitional or horizontal surfaces of	
an aerodrome or heliport must, without the prior approval	
of the Director, be erected or allowed to come into	
existence.	

4. Policies

Explain which policies were considered and how the proposed activity or development complies and responds to these policies.

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Various policy documents were consulted during the conceptualisation of this project. These documents include:

1. Provincial SDF

The Provincial Spatial Development Framework (PSDF) released by the Western Cape in 2014 identifies the Garden Route as a priority region to target for growing the Provincial economy and specifically refers to Mossel Bay as an emerging regional centre. In order to align with the Provincial Spatial Policies and drive growth within Mossel Bay, The PSDF (2014) explains that Compact, Mixed Use and Integrated Settlements are to be promoted, while also improving Inter and Intra-regional Accessibility. Recent urbanization of the Garden Route and reduction in Erven size has led to challenges in storage. Accessibility to additional storage and the promotion of Compact and Integrated Settlements will allow for conscious development going forward and use of valuable space while maintaining the sense of place, reduce the impact of Urbanization and creating jobs. The development of Storage units will also facilitate Compact development by reducing the need for large properties with self-storage space.

2. Bitou SDF

The Municipal Spatial Development Plan (MSDF) released by the Mossel Bay Municipality in 2018 outlines various "Smart Growth Principles" that are to be used to help achieve integrated and efficient human settlements. The Proposed Development of a storage unit facility will support the Local Municipalities movement towards creating integrated and efficient human settlements by aligning with the following "Smart Growth Principals":

- Provide for a mix of different kinds of land uses.
- Create well-designed compact neighbourhoods where the different activities are in close proximity to each other.

The Proposed Storage unit facility will add to the mix and diversify the land use types, providing storage units for people either immigrating to the Garden Route, emigrating from the Garden route or downscaling and requiring storage space. The Proposed development will also contribute towards creating compact neighbourhoods by reducing the need for at home storage facilities, large gardens with sheds or storage units and the unnecessary use of facilities which may be better utilised as community halls or centres. The current Covid-19 pandemic has also forced people and families to move in with one another to save costs. Additional storage space will be required to accommodate the families' contents.

Furthermore, the MSDF (2018) notes that Aalwyndal (the community whereby the proposed project location is situated in), has undergone a precinct planning exercise as it was identified as the next major development area within the municipality.

5. Guidelines

List the guidelines which have been considered relevant to the proposed activity or development and explain how they have influenced the development proposal.

Guidelines	Describe how the proposed development complies with and responds:
Guideline on Public Participation (2013)	Guideline considered in the undertaking of the public participation for the proposed development. All relevant provisions contained in the guideline were adhered to in the basic assessment process as appropriate, except where an exemption/ deviation has been granted by the Competent

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	Authority.
Guideline on Alternatives (2013)	Guideline considered when identifying and evaluating possible alternatives for the proposed development. Alternatives that were considered in the impact assessment process are reported on in this Basic Assessment Report (see section E)
Guideline on Need and Desirability (2013)	Guideline considered during the assessment of the Need and Desirability of the proposed development project.
Guideline on Environmental Management Plans (2005)	Guideline considered in the compilation of the EMP attached to this Basic Assessment Report.
Guideline for the Review of Specialist Input into the EIA Process (2005)	Guideline considered during the review and integration of specialist input into this Basic Assessment Report
External Guideline: Generic Water Use Authorization Application Process (2007)	Guideline considered during the process of applying for the required water use authorization
Integrated Environmental Management Information Series 5: Impact Significance (2002)	Guideline considering during the identification and evaluation of potential impacts associated with the proposed development, and the reporting thereof in this Basic Assessmen Report
Integrated Environmental Management Information Series 7: Cumulative Effects Assessment (2004)	Guideline considering during the assessment of the cumulative effect of the identified impacts.
Circular EADP 0028/2014: One Environmental Management System	Guideline regulating multiple environmental activities under NEMA, including mining related activities.
Guideline for determining the scope of specialist involvement in EIA processes, June 2005.	Guideline considered when determining the scope of specialist involvement for this assessment.
Guideline for involving biodiversity specialists in the EIA process, June 2005.	Guideline considered to guide biodiversity specialist input in this assessment.
Guideline for involving heritage specialists in the EIA process, June 2005.	Guideline considered to guide the heritage specialist input in this assessment.

6. Protocols

Explain how the proposed activity or development complies with the requirements of the protocols referred to in the NOI and/or application form

On March 20th, 2020, and August 2020, the procedures for the assessment and minimum criteria for reporting on identified environmental themes in terms of sections 24(5)(A) and (H) and 44 of the National Environmental Management Act, 1998, when applying for environmental authorisation, was promulgated.

The following is a summary of the development footprint environmental sensitivities identified by the DEA Screening Tool (see Appendix D).

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Theme	Very High Sensitivity	High Sensitivity	Medium Sensitivity	Low Sensitivity
Agriculture Theme			Х	
Animal Species Theme		Х		
Aquatic Biodiversity Theme	Х			
Archaeological and Cultural Heritage Theme				Х
Civil Aviation Theme		Х		
Palaeontology Theme		Х		
Plant Species Theme			X	
Defence Theme				Х
Terrestrial Biodiversity Theme	Х			

Based on these results, the Screening tool recommended the following specialist assessments be conducted:

- Landscape/Visual Impact Assessment
- Archaeological and Cultural Heritage Theme
- Palaeontology Impact Assessment
- Terrestrial Biodiversity Impact Assessment
- Aquatic Biodiversity Impact Assessment
- Avifaunal Assessment
- Socio-Economic Assessment
- Plant Species Assessment
- Animal Species Assessment

The following specialist reports will not be undertaken:

Landscape/Visual Impact Assessment:

The surrounding properties are spaced out significantly, and although the proposed development is unique to this area, it is not uncommon to find large structures such as barns or housing on these properties. Given its distance from neighbours, there will not be a landscape or visual impact assessment undertaken.

Archaeological and Cultural Heritage & Palaeontology Impact Assessment

A NID will be undertaken and submitted to HWC for comment. Should HWC require an assessment be completed, this will be undertaken. Until this instruction is received from HWC, no impact assessment will be undertaken.

Socio-Economic Assessment

No socio economic impact assessment will be undertaken as the proposed development will be undertaken in an area that has already been earmarked for development.

In response to the above-mentioned recommendations, the following studies will be compiled for the proposed construction, which will comply with the relevant Protocols and all of the potential impact concerns:

	STUDY	SPE	CIALIST	SENSITIVITY THEME AIMING TO BE ADDRESSED
Aquatic Statement	Compliance	Sharples Services CC	Environmental	Aquatic Biodiversity

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Biodiversity Surve	ЭУ	Mark Berry Environmental	Plant Species and Terrestrial
		Consultants	Biodiversity
Avifaunal	Compliance	Steven W Evans Avifaunal	Animal Species
Statement		Assessments	
Agricultural	Compliance	Johann Lanz	Agriculture
Statement			
Butterfly Study		Dave Edge and Associates	Animal Species

SECTION D: APPLICABLE LISTED ACTIVITIES

List the applicable activities in terms of the NEMA EIA Regulations

Activity No(s):	Provide the relevant Basic Assessment Activity(ies) as set out in Listing Notice 1	Describe the portion of the proposed development to which the applicable listed activity relates.
27	The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for— (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	The proposed footprint is approximately 7ha, located on a natural area. Therefore, this activity is applicable.
Activity No(s):	Provide the relevant Basic Assessment Activity(ies) as set out in Listing Notice 3	Describe the portion of the proposed development to which the applicable listed activity relates.
4	The development of a road wider than 4 metres with a reserve less than 13,5 metres. i. Western Cape i. Areas zoned for use as public open space or equivalent zoning; ii. Areas outside urban areas; (aa) Areas containing indigenous vegetation; (bb) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or iii. Inside urban areas: (aa) Areas zoned for conservation use; or (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority.	According to the engineering report the proposed development will accommodate a main internal road width of 12m, and internal road widths of 6.5m, on a site that contains indigenous vegetation, as confirmed by the Botanical Specialist.
12	The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.	The proposed development will fall within a natural area, consisting predominantly of Mossel Bay Shale Renosterveld which is listed as Endangered in terms of the national list of Threatened Terrestrial Ecosystems (DEA 2011).

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this i. Western Cape listed Therefore, activity is i. Within any critically endangered or triagered. endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial **Biodiversity Assessment 2004:** Within critical biodiversity areas identified in bioregional plans; iii. Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas: iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open conservation or had space, equivalent zoning; or v. On land designated for protection or conservation purposes **Environmental Management Framework** adopted in the prescribed manner, or a

Note:

• The listed activities specified above must reconcile with activities applied for in the application form. The onus is on the Applicant to ensure that all applicable listed activities are included in the application. If a specific listed activity is not included in an Environmental Authorisation, a new application for Environmental Authorisation will have to be submitted.

Framework

Where additional listed activities have been identified, that have not been included in the application form, and amended
application form must be submitted to the competent authority.

List the applicable waste management listed activities in terms of the NEM:WA

Development

adopted by the MEC or Minister.

Activity No(s):	Provide the relevant Basic Assessment Activity(ies) as set out in Category A	Describe the portion of the proposed development to which the applicable listed activity relates.

List the applicable listed activities in terms of the NEM:AQA

Spatial

Activity No(s):	Provide the relevant Listed Activity(ies)	Describe the portion of the proposed development to which the applicable listed activity relates.

SECTION E: PLANNING CONTEXT AND NEED AND DESIRABILITY

1. Provide a description of the preferred alternative.

The proposed development site is situated in Aalwyndal, on ERF 21275, Portion 240, Vyf Braakke Fontein Farm, approximately 13km's north-west of Mossel Bay Central. It is approximately 77 521m² in size, is zoned as Residential Zone I, and is intended to be rezoned to Light Industrial, to accommodate the proposed development.

The proposed development will entail:

• The construction of a storage facility, extending across Erf 21275, accommodating approximately 1 832 storage units of varying sizes, that will be used for the storage of private goods, including but not limited to furniture, caravans, equipment, etc, as well to

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be utilized for airport storage. Unit sizes proposed:

- 158 x (±3mx3m)
- 1674 x (±3mx6m)
- Construction of:
 - A 39m² office with male and female toilet and hand wash basin. Inclusive of small kitchenette for office staff.
 - A 57m² guardhouse with toilet and hand wash basin.
 - A 97m² caretaker flat.
- Construction of a 2.4m Palisade fence with Electrical fence over (perimeter fence).
- Approximately 346 parking spaces will be provided, with an additional 8 visitors parking.
- Dust free interlocking paving and grass blocks.
- 2. Explain how the proposed development is in line with the existing land use rights of the property as you have indicated in the NOI and application form? Include the proof of the existing land use rights granted in Appendix E21.

The proposed development is not in line with the current land use rights. According to the Town Planning Report undertaken by Nel de Kock Town and Regional Planners, an application has been made in terms of Section 15.2 (a) of the Land Use Planning By - law of the Municipality of Mossel Bay for the rezoning of Erf 21275 from Residential Zone I to Industrial Zone I for the purposes of developing a storage park.

3. Explain how potential conflict with respect to existing approvals for the proposed site (as indicated in the NOI/and or application form) and the proposed development have been resolved.

There are no existing approvals for this site.

4. Explain how the proposed development will be in line with the following?
4.1 The Provincial Spatial Development Framework.

The Provincial Spatial Development Framework (PSDF) released by the Western Cape in 2014 identifies the Garden Route as a priority region to target for growing the Provincial economy and specifically refers to Mossel Bay as an emerging regional centre. In order to align with the Provincial Spatial Policies and drive growth within Mossel Bay, The PSDF (2014) explains that Compact, Mixed Use and Integrated Settlements are to be promoted, while also improving Inter and Intra-regional Accessibility.

According to the Town Planning Report, 2021, highlights the key goals identified in the Provincial Spatial Development Framework, and its applicability to the project:

- Environmental resources the town planning report has noted that there are no significant resources on the site that could have an economic impact on the unlocking of the relevant environments for commercial / light industry purposes, however the proposed development can be regarded as a precursor to the establishment of new activity sub-nodes.
- Human Development The development of human development programs is focused on a
 process of increasing people's choices to lead a long and healthy life, to receive an
 education, to live a decent standard as well as to enjoy political freedom. In addition to the
 financial empowerment that the proposed development offers in terms of job creation to
 advance these objectives, it does not otherwise have a direct impact on it.
- Public Funds The proposed development will not be financed with scarce public funds and municipal services required for it will be used on a limited scale. It is anticipated that in the future bulk services will have to be established to include allow for other services that are more service-intensive. For the purposes of this, public funds are needed, but this is again recovered on a pro rata scale from developers through capital contributions. Funding for such projects with public capital will, however, be directed over the longer term by the objective of making investments where it can yield the highest socio-economic return. This refers not only to the job creation opportunities that it will result in, but also to the provision of services that benefit a community across a broad front.

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- Land reform in South Africa it became necessary in the post-apartheid era to address
 inherent historical injustices, especially where it led to the expropriation of land, did not
 relate to the proposed development. This must be seen against the background that the
 owner of Erf 21275 bought the property for several million Rand and therefore did not
 deprive anyone of opportunities, but through job creation endeavours to create new
 opportunities for a broad spectrum of the community, for people of various skills levels.
- Sense of Place The proposed development will not contribute to promoting the existing sense of place of the present environment, as currently there is only the airport with limited residential development on the properties in the area. Rather, it is envisaged that the proposed development as a precursor of other commercial / light industrial developments will create a new sense of place that will be compatible with the airport activities that are already there.
- Urban Settlements does not relate to the proposed development, as this is not for residential purposes.
- Promote public and non-motorized transport This is not seen as a factor at this stage, as the scale of the proposed activities will not justify them. However, as more commercial / light industry activities are established around the area, and it develops into a full-fledged subnode, it is anticipated that in time it will be justified to include public transport. However, due to the distance between this sub-node and the neighbourhoods, from where employees currently come, as well as the topographical brokenness of the site in between, it is unlikely that non-motorized transportation will readily take off over the short to medium term. With the development of the residential component in that area, as the 'Precinct' plan also provides for, the situation will change to such an extent that non-motorized transport will be feasible.
- Protection of biodiversity The objective of protecting biodiversity and agricultural resources is not practically feasible in the present case, as this space is ideal for commercial/light industrial use within the Greater Mossel Bay, which is an important driver of growth. It will inevitably have a very negative impact on the growth and therefore viability of Mossel Bay as a sought-after economic settlement destination along the Southern Cape coast. The site does not have a high agricultural potential as a resource, while Sharples Environmental Services in the 'B.A.R' proposes certain mitigating measures to share sensitively with the biodiversity.
- Limiting the use of scarce environmental resources in particular water, fuel, building materials, mineral resources, electricity and land, is not materially affected by the proposed development, as specified resources, where applicable, on a very limited scale will be used.

Recent urbanization of the Garden Route and reduction in Erven size has led to challenges in storage. Accessibility to additional storage and the promotion of Compact and Integrated Settlements will allow for conscious development going forward and use of valuable space while maintaining the sense of place, reduce the impact of Urbanization and creating jobs. The development of Storage units will also facilitate Compact development by reducing the need for large properties with self-storage space.

The Mossel Bay Airport currently resides adjacent to the proposed site. The proposed site along with the neighbouring properties to the north and site have been identified for commercial use in terms of the Municipal SDF, 2018, for use by the airport. The potential for support services, such as a storage facility, for the airport, will improve the airports efficiency in management and storage of cargo and other materials, that can promote the local economy and

4.2 The Integrated Development Plan of the local municipality.

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The integrated development plan (IDP) released by the Mossel Bay Municipality in 2017 aims to provide guidance and informs all planning, budgeting, management, and strategic decision making in the municipality and supersedes all other plans that guide development.

The proposed storage facility will contribute towards the development and improvement of the key performance areas identified by the Mossel Bay IDP (2017). Storage is categorised as a commercial service by the Mossel Bay IDP (2017), as part of the tertiary economic sector. The Mossel Bay IDP (2017) notes that the commercial services sector contributed more than 50% towards the municipalities GDP in 2015 and has grown at a steady pace of 4.4% per year between 2005 and 2015, faster than the municipal average of 3.2%. This sector employed 50,7 per cent of the municipality's workforce (making it the largest employer). A large proportion (27,6%) of the industry's workforce are classified as semi-skilled, while 10,8 per cent are classified as low-skilled and 22,0% are classified as skilled.

In accordance with the Integrated Development Plan, key areas have been identified as per the Town Planning Report, 2021:

- Good and accessible basic municipal services must be provided to all within a dynamically growing economy
 - the proposed development does not require that the full spectrum of bulk services, that may be required for development in the future, be provided at this stage. Considering that for several properties north of Erf 21275 which is also located on top of the plateau, processes are currently in place to apply for residential and commercial / light industrial development. This will inevitably follow the current proposal in which case it is envisaged that upgrading bulk services in this area will soon be necessary to activate a dynamically growing economy.
- Poverty must be addressed by providing access to land, housing, jobs and health services to
 establish a community where disadvantaged groups can actively participate in the
 economy.
 - The basic solution to poverty alleviation is job creation. This makes a community economical empowered, enabling self-sufficiency or to make a contribution to the assistance provided by the government, especially with regard to housing. Although the proposed development will not make a significant difference in this regard, except that it will create many jobs during the construction phases, it facilitates the unlocking of this environment for development which does have a major impact on the economy of Mossel Bay, and therefore well-being of its inhabitants will have.
- A vibrant association where people actively participate in municipal affairs and the promotion of the community's interests
 - This objective is not relevant to the proposed development of a storage park.
- All areas of the study area must be improved to form part of an attractive, safe and healthy place to live.
 - The 'Precinct' plan, which was drawn up in 2018, aimed, among other things, to create a framework within which orderly development of an undeveloped area can take place. This will ensure that not only a safe, attractive and healthy place to live is created for the living component of the planned land uses, but also for the commercial / light industrial uses that the plan provides for.

The proposed development will address the following core priorities, as advised by the Town Planning Report:

- Satisfaction of basic needs of the community.
 - While housing is a basic need of the community, affordability is the primary consideration. Given the increasing trend of smaller plots the result is that the houses being erected are also smaller, therefore there is a need for storage space, required for excess equipment and furniture. Normally, this storage space is for short term renting, which is cheaper than creating additional space in ones home.

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Mossel Bay has undergone recent transformations from a holiday destination to a settlement destination, therefore the need for storage space has increased drastically, especially with regard to those who initially rent a home before moving into a permanent home. Thanks to the rapid growth of Mossel Bay, it is anticipated that this need for storage space will increase cumulatively, not only with regard to household goods, but also with regard to boats, trailers, caravans and other equipment.

The developer is well acquainted with the challenge posed by this type of development and is therefore able to deliver a product that will meet the highest standards in terms of security and functionality.

- Community participation and involvement in development.
 - The proposed rezoning will be duly advertised as required by the Land Use Planning By law so that the community will be given the opportunity to comment and input.
 - The proposed development will be addressed via an EIA process that encompasses public participation.
- Creation of an integrated way of life and compact formal and informal urban settlement.
 - The future land use pattern provided for in the Aalwyndal 'Precinct' plan is a good example of where there is a spatial budget for complimentary land uses, such as job creation opportunities that will be symbiotic to the nearby housing opportunities. As future development in this area reaches maturity, it is envisaged that on the land intended for commercial purposes, development will take place in the neighbouring centre, to meet the needs of the working and nearby residential community. This will give functional motivation to the Mossel Bay Spatial Development Framework's objective of creating an integrated liveable, and compact formal and informal urban settlement.
- Affordability and sustainability.
 - The scope of the proposed development, as indicated on the accompanying Site Development Plan, will promote economies of scale and thus ensure the sustainability of the project.
- Poverty alleviation, gender equality and group needs.
 - The proposed development will impact on job creation, offer an opportunity to empower people economically and thus contribute to poverty alleviation.
- Environmental protection and sustainability.
 - As already mentioned, the protection of the environment by means of mitigating measures is fully discussed in the Basic Assessment Report. In this regard, it should be mentioned that the developer will negotiate with the municipality to contribute financially to the protection and conservation of a nature reserve elsewhere that has a greater conservation potential. This will ensure that a holistic approach is followed according to which land use priorities are meaningfully and responsibly reconciled and accommodated to the benefit of the interests and needs of the wider community.
- Economic growth and job creation.
 - The proposed development as such, with the exception of the construction phase, will not necessarily make a significant difference to economic growth and job creation. The growth and therefore economic activities that it is expected to unlock in this environment will make a significant contribution to job creation and economic activities.

4.3. The Spatial Development Framework of the local municipality.

The provincial spatial development framework (psdf) released by the western cape in 2014 identifies

the garden route as a priority region to target for growing the provincial economy and specifically refers to Mossel Bay as an emerging regional centre. In order to align with the provincial spatial policies and drive growth within Mossel Bay, the PSDF (2014) explains that compact, mixed use and integrated settlements are to be promoted, while also improving inter and intra-regional accessibility. Recent urbanization of the garden route and reduction in erven size has led to challenges in storage. Accessibility to additional storage and the promotion of compact and integrated settlements will allow for conscious development going forward and use of valuable space while maintaining the sense of place, reduce the impact of urbanization and creating jobs. The development of storage units will also facilitate compact development by reducing the need for large properties with self-storage space.

4.4. The Environmental Management Framework applicable to the area.

The Integrated Development Plan (IDP) released by the Mossel Bay Municipality in 2017 aims to provide guidance and informs all planning, budgeting, management, and strategic decision making in the Municipality and supersedes all other plans that guide development.

Key Performance Areas (KPA'S) and Strategic Objectives set the strategic tone and pave the direction for future developments, investments and public/private partnership interventions. The Key Performance Areas and Strategic Objectives are identified in order inform and guide service delivery and development over the preceding five years. KPA's identified, such as the facilitation of Economic development and the maintenance of a diverse workforce have been identified in order to create jobs, alleviate poverty, upskill workers and promote socio-economic development. The proposed storage facility will contribute towards the development and improvement of the Key Performance areas identified by the Mossel Bay IDP (2017). Storage is categorised as a Commercial service by the Mossel Bay IDP (2017), as part of the Tertiary Economic Sector. The Mossel Bay IDP (2017) notes that the Commercial services sector contributed more than 50% towards the Municipalities GDP in 2015 and has grown at a steady pace of 4.4% per year between 2005 and 2015, faster than the municipal average of 3.2%. This sector employed 50,7 per cent of the Municipality's workforce (making it the largest employer). A large proportion (27,6%) of the industry's workforce are classified as Semi-skilled, while 10,8 per cent are classified as low-skilled and 22,0% are classified as skilled.

The development of a Storage facility will create jobs, upskills workers and provide a valuable commercial service towards the developing municipality while still contributing towards the continuation of a successful Tertiary Economic Sector.

5. Explain how comments from the relevant authorities and/or specialist(s) with respect to biodiversity have influenced the proposed development.

After the pre-application public participation, comments will be noted in the comments and responses table and integrated into the bar.

6. Explain how the Western Cape Biodiversity Spatial Plan (including the guidelines in the handbook) has influenced the proposed development.

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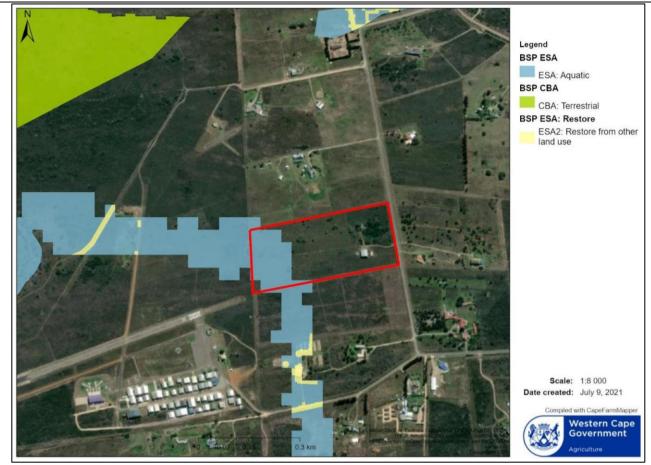


Figure 7: Biodiversity Map

It has been noted that the site's western end forms part of the Mossel Bay CBA network. It protrudes into an aquatic ecological support area (ESA), which connects a series of depression wetlands located to the west with an east-west running watercourse to the south of the site (between the Mossel Bay Airfield and N2). It seems to be artificially routed around the eastern end of the airfield through the site. There is no evidence of any wetlands or watercourses on the site itself, which questions the mapped status of the ESA.

CBA's are defined as areas in a natural condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure (Pool-Stanvliet et al. 2017). These sites are selected for meeting national targets for species, habitats and ecological processes (Pool-Stanvliet et al. 2017). Many of these areas support known occurrences of threatened plant species, and/or may be essential elements of designated ecological corridors. Loss of designated CBA's is therefore not recommended. ESA's, on the other hand, are supporting zones required to prevent the degradation of CBA's and Protected Areas.

With the site protruding into a seemingly artificially mapped aquatic ESA, one can expect a low to medium impact on the network. The proposed development does not pose a direct impact on any mapped CBA's.

An aquatic compliance statement was undertaken, confirming that there are no aquatic habitats on this site, or within 500m radius. This confirms that the impact on the ESA will be negligible as no aquatic habitats are identified.

7. Explain how the proposed development is in line with the intention/purpose of the relevant zones as defined in the ICMA.

Not applicable, as this proposal is not within a coastal property.

8. Explain whether the screening report has changed from the one submitted together with the application form. The screening report must be attached as Appendix I.

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This is the pre-application BAR. Should there be a change in the screening tool during the application process this will be noted.

9. Explain how the proposed development will optimise vacant land available within an urban area.

The proposed development will optimise land within the urban edge. The site has been utilized for minor agricultural purposes but has predominantly remained vacant. It has been maintained over the years, but serves no real purpose, as it is within the direct flight path of the Mossel Bay Airport. Through the proposed development the site will be utilized for light industrial purposes, which will benefit the airport (align with current neighbouring landuse), as well as address future development opportunities planned for the Aalwyndal area.

10. Explain how the proposed development will optimise the use of existing resources and infrastructure.

The proposed development will utilize existing infrastructure as much as possible, according to the Engineering Report the water connection and access are sufficient to cater to this development and will therefore be utilized.

11. Explain whether the necessary services are available and whether the local authority has confirmed sufficient, spare, unallocated service capacity. (Confirmation of all services must be included in Appendix E16).

According to the engineering report, the water infrastructure will be sufficient for the proposed development. However, all services availability and sufficient capacity, will be confirmed by the Municipality.

In addition to the above, explain the need and desirability of the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013) or the DEA's Integrated Environmental Management Guideline on Need and Desirability. This may be attached to this BAR as Appendix K.

The Department's guideline on Need and Desirability (March 2013) provides a strong base for the proposed development. The guideline references the New Growth Path (NGP) (2010) when referring to the strategic context for the consideration of need and desirability. It is important to understand how the proposed development falls within the strategic context in order to fully recognise the need and desirability.

The NGP formulated various principles to guide "the transition to an environmentally sustainable low-carbon economy, moving from policy, to process, to action", the principles listed below highlight how need and desirability of the proposed development are aligned with the NGP in terms of the Department's guideline on Need and Desirability (March 2013):

- Just, ethical and sustainable: The proposed development recognises South Africa as a developing country, the proposed development will seek to support the Tertiary sector, that is required in an area that has been developed and continues to be undergoing development.
- Global solidarity: The proposed development aims to justly balance national interests, such as improved services, related to storage.
- Full cost accounting: Internalise both environmental and social costs in planning and investment
 decisions, recognising that the need to secure environmental assets may be weighed against
 the social benefits accrued from their use. In this regard, planning and analysis has gone into this
 project, taking into account measures to safeguard species of concern and aquatic ESA's, as
 much as possible.
- Opportunity focused: The proposed development has sought to identify synergies between sustainability, growth, competitiveness and employment creation, in order to attain equality and prosperity. The construction phase of the proposed development will benefit the local economy in the short to medium term, as well as provide a base for skills transfer which will aid the socioeconomic growth of the local community, as labour will be sourced from the local community.
- Effective participation of social partners: The environmental assessment will be subject to public participation, that would introduce the opportunity for the dialogue that will result in the

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- identification and acknowledgment of mutual responsibilities, differences, achieve consensus through compromise.
- Accountability and transparency: Undertaking the Basic Assessment process allows for accountability and transparency of the proposed development in an integrated manner, as the documents will be submitted for public participation, to any interested and affected party, and will be subject to comments, rejections and appeals, if necessary.

In the National Framework for Sustainable Development ("NFSD") (2008), it states that "The achievement of sustainable development is not a once-off occurrence and its objectives cannot be achieved by a single action or decision." As such, it is not expected that this proposed development will single handily achieve sustainable development, but it will contribute towards achieving sustainable development.

"The process to achieve sustainable development is an ongoing process that requires a particular set of values and attitudes in which economic, social and environmental assets that society has at its disposal, are managed in a manner that sustains human well-being without compromising the ability of future generations to meet their own need." The need and desirability of the proposed development is further emphasized as the proposed development forms part of the aforementioned ongoing process. The proposed development conceptualizes the particular set of values and attitudes in which economic, social and environmental assets are required to be managed in order to sustain human well-being without compromising the ability of future generations to meet their own needs and effectively achieve sustainable development. This is done by improved support of the Tertiary sector by providing access to a commercial service (storage) which plays a vital role in ensuring that other sectors established within the municipality are sufficiently supported, in addition this is achieved by driving socio-economic development by providing a range of jobs based on skill set, which will benefit the surrounding community and the municipality. In the current state, developmental needs (community needs) must firstly be determined through the planning processes (IDP, SDF and EMF). The need may be at the local, regional or national level. The proposed development is aligned with the planning processes and endeavours to contribute towards efforts aimed at ensuring that Primary and Secondary industries established within the municipality are well supported by newly built commercial services. The proposed development will form part of an ongoing process to achieve sustainable development.

The Department's guideline on Need and Desirability (March 2013) states it is necessary to turn to the principles contained in NEMA in order to define "need" that relates to the interests and needs of the broader public. In this regard the NEMA principles specifically inter alia require that environmental management must:

- Place people and their needs at the forefront of its concern and equitably serve their interests;
- Be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must take into account the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option;
- Ensure that decisions take into account the interests, needs and values of all interested and affected parties; and
- Ensure that the environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage.

The Need and Desirability of the proposed development in terms of the Department's guideline on Need and Desirability (March 2013) is further emphasised through its alignment with the NEMA principles. The alignment of the proposed development with the aforementioned principles are evident as the proposed development aims to place people and their needs at the forefront by ensuring that Primary and Secondary industries, which provide half of the employment for the municipality, are well supported and jobs created for a range of skill sets. Relative specialist reports have been completed to aid decision making and fully understand all elements of the environment on site. As the specialist reports provide an insight into the environmental elements, provisions have been made for 2 stringent public participation phases in order to take into account the interests, needs and values of all interested and affected parties. NEMA makes it evident that proposed developments must ensure that the environment and its resources must serve the public interest while protecting the environment.

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The proposed development will serve the public's social, economic and ecological needs equitably. The proposed development will strive to secure ecological integrity, while the provision of storage space would provide future support for Primary and Secondary Industries while leading to towards a positive impact on the job and business market at a local and regional level, for a short-term, for the benefit of the public.

SECTION F: PUBLIC PARTICIPATION

The Public Participation Process ("PPP") must fulfil the requirements as outlined in the NEMA EIA Regulations and must be attached as Appendix F. Please note that If the NEM: WA and/or the NEM: AQA is applicable to the proposed development, an advertisement must be placed in at least two newspapers.

1. Exclusively for linear activities: Indicate what PPP was agreed to by the competent authority. Include proof of this agreement in Appendix E22.

Not a linear activity, therefore, not applicable.

2. Confirm that the PPP as indicated in the application form has been complied with. All the PPP must be included in Appendix F.

All public participation will be confirmed in the Post-Application Draft BAR.

However, as per the agreed upon public participation plan, the proposed public participation will comply with, the National Environmental Management Act, 1998 (Act 107 of 1998), GNR 326, Chapter 6, Regulation 41(2)(a) to (d) of the EIA Regulations 2014, as amended 2017:

Table 4: Proposed Public Participation

Activity in accordance with regulation 41(2)(a) to (d) of the	Requirements	Proposed
EIA Regulations		
(a) fixing a notice board at a	Proponents/ applicants, EAPs,	Notice boards fixed as
place conspicuous to and	specialists and professionals,	per Figure 6.
accessible by the public at the	where relevant, must:	
boundary, on the fence or along	- ensure that all reasonable	
the corridor of—	measures are taken to identify	
(i) the site where the activity to	potential I&APs for purposes of	
which the application or	conducting public	
proposed application relates is or	participation on the	
is to be undertaken; and	application; and	
(ii) any alternative site;	- ensure that, as far as is	
(b) giving written notice, in any of	reasonably possible, taking into	An extensive I&AP
the manners provided for in	account the specific aspects of	database has been
section 47D of the Act, to—	the application-	compiled, which
(i) the occupiers of the site and, if	(a) information containing all	identifies affected
the proponent or applicant is not	relevant facts in respect of the	adjacent landowners,
the owner or person in control of	application or proposed	authorities, organs of
the site on which the activity is to	application is made available	state and other
be undertaken, the owner or	to potential I&APs and	affected parties.
person in control of the site where	(b) participation by potential or registered I&APs has been	A ay yaa aa ay a a f tla a
the activity is or is to be	facilitated in such a manner	A summary of the
undertaken and to any alternative site where the activity	that all potential	means proposed to notify the various
is to be undertaken;	or registered I&APs are	1&APs has been
(ii) owners, persons in control of,	provided with a reasonable	included in the
and occupiers of land adjacent	opportunity to comment on the	section below. These
to the site where the activity is or is	application or proposed	include email
to be undertaken and to any	application.	notification, direct
alternative site where the activity		telephonic calls,
is to be undertaken;	In ensuring the above,	Whatsapp Broadcasts,

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(iii) the municipal councillor of the applicants and EAPs, in site notices and ward in which the site and addition to the methods advertisement. alternative site is contained in Chapter 6 of the situated and any organisation of EIA Regulations, or as part of Letter-drops will be ratepayers that represent the reasonable alternative undertaken as per community in the area: methods proposed in terms of Figure 6. (iv) the municipality which has regulation 41(2)(e) of the EIA Regulations, may make use of jurisdiction in the area; (v) any organ of state having the following non-exhaustive list jurisdiction in respect of any of methods: emails, websites, Zero Data aspect of the activity; and Portals, Cloud Based Services, (vi) any other party as required by or similar platforms, direct the competent authority; telephone calls, virtual (c) placing an advertisement in meetings, newspaper notices, An advertisement will radio advertisements, (i) one local newspaper; or be placed in the (ii) any official Gazette that is community representatives, Mossel Bay Advertiser. published specifically for the distribution of notices at places purpose of providing public notice that are accessible to potential of applications or other I&APs. submissions made in terms of these Regulations; (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or district municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official Gazette referred to in paragraph (c)(ii) (e) using reasonable alternative I&AP's who do methods, as agreed to by the have not competent authority, in those access to instances where a person is email will be desirous of but unable to notified of the participate in the process process via an due tosms or (i) illiteracy; Whatsapp (ii) disability; or medium if (iii) any other disadvantage appropriate. Information containing all relevant facts in respect of the application or proposed application will also be circulated in if this way appropriate. lf we are made aware of any I&AP

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Γ	with illiteracy,
	disability or
	other
	disadvantage
	we will
	engage with
	such I&AP to
	ensure their
	issues are
	noted.

The proposed distribution of the site notices and letter-drops are as per the public participation plan.

The 30-day Commenting Public Participation Period for the Pre-Application Draft BAR is: **8**th **November 2021 – 7**th **December 2021.**

3. Confirm which of the State Departments and Organs of State indicated in the Notice of Intent/application form were consulted with.

The following State Departments and Organs of State will be contacted during the Pre-Application Public Participation:

STATE DEPARTMENTS					
AUTHORITIES	NAME	CONTACT DETAILS			
Eskom: Land	Mr O Peters,	PetersOw@eskom.co.za.			
Development					
Western Cape	Mr S Kleinhans	DEADPEIAAdmin.George@westerncape.gov.za			
Government:		and Steve.Kleinhans@westerncape.gov.za			
Department of					
Environmental Affairs					
and Development					
Planning - Development					
Management (Region 3)					
DEA&DP: Pollution	Ms. A	Arabel.McClelland@westerncape.gov.za			
Management	McClelland				
Western Cape					
Government:	Mr. C van der	corvdw@elsenburg.com			
Department of	Walt				
Agriculture					
Breede-Gouritz	Mr C Abrahams	cabrahams@bgcma.co.za.			
Catchment					
Management Agency					
Western Cape	Mr J Prodehl				
Government:		Juan.Prodehl@westerncape.gov.za			
Department of Transport		Joan I Todom wo storned polyoviza			
and Public Works		_			
Heritage Western Cape	Ms W Dhansay	Stephanie.bernardt@westerncape.gov.za			
		NS OF STATE			
AUTHORITIES	NAME	CONTACT DETAILS			
	Mr C Fordham	cfordham@capenature.co.za			
CapeNature	Ms M Simons				
		msimons@capenature.co.za			
South African Civil	Ms L Stroh	StrohL@caa.co.za			
Aviation Authority	Ms E Shogola	ShogoleE@caa.co.za			
Garden Route District	Mr C Africa	info@gardenroute.gov.za			
Municipality Executive					
Manager: Community					
Services					

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Garden Route District Municipality Executive Manager: Planning and Economic Development	Mr L Menze	info@gardenroute.gov.za
Garden Route District Municipality: Environmental Management, Climate Change and Mitigation	Dr. N Viljoen	nina@gardenroute.gov.za
Mossel Bay Municipality: Infrastructure services	Mr D Naidoo	dnaidoo@mosselbay.gov.za
Mossel Bay Municipality: Director Planning & Economic Development	Mr C Venter	cventer@mosselbay.gov.za
Mossel Bay Municipality: Municipal Spatial Planner	Mr J Roux	jroux@mosselbay.gov.za
Mossel Bay Municipality: Conservation	Mr W Manuel	wmanuel@mosselbay.gov.za
Mossel Bay Municipality: Community services	Ms E Nel	enel@mosselbay.gov.za
Mossel Bay Municipality: Water and Sanitation	Mr. E Louw	elouw@mosselbay.gov.za
Mossel Bay Heritage Association	Ms R De Kock	chair.heritage@ourheritage.org.za
Ward Councillor - Ward 7	Mr A.B Groenewald	groenewaldbarnie@gmail.com

4. If any of the State Departments and Organs of State were not consulted, indicate which and why.

The following Departments and/or Organs of State will not be consulted, as the proposed development and/or proposed activities and impact, would have no relevance to their interests:

Departments of:

- Community Safety
- Cultural Affairs and Sport
- Education
- Human Settlements
- Provincial Treasury
- Social Development

Public Entities:

- Cape Town and Western Cape Tourism, Trade and Investment Promotion Agency (Wesgro)
- Western Cape Cultural Commission
- Western Cape Gambling and Racing Board
- Western Cape Language Committee
- Western Cape Liquor Authority
- Western Cape Police Ombudsman (WCPO)
- 5. if any of the State Departments and Organs of State did not respond, indicate which.

To be confirmed following the Pre-Application BAR Public Participation.

6. Provide a summary of the issues raised by I&APs and an indication of the manner in which the issues were incorporated into the development proposal.

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To be confirmed following the Pre-Application BAR Public Participation.

Note:

A register of all the I&AP's notified, including the Organs of State, <u>and</u> all the registered I&APs must be included in Appendix F. The register must be maintained and made available to any person requesting access to the register in writing.

The EAP must notify I&AP's that all information submitted by I&AP's becomes public information.

Your attention is drawn to Regulation 40 (3) of the NEMA EIA Regulations which states that "Potential or registered interested and affected parties, including the competent authority, may be provided with an opportunity to comment on reports and plans contemplated in subregulation (1) prior to submission of an application but **must** be provided with an opportunity to comment on such reports once an application has been submitted to the competent authority."

All the comments received from I&APs on the pre-application BAR (if applicable and the draft BAR must be recorded, responded to and included in the Comments and Responses Report and must be included in Appendix F.

All information obtained during the PPP (the minutes of any meetings held by the EAP with I&APs and other role players wherein the views of the participants are recorded) and must be included in Appendix F.

Please note that proof of the PPP conducted must be included in Appendix F. In terms of the required "proof" the following is required:

- a site map showing where the site notice was displayed, dated photographs showing the notice displayed on site and a copy of the text displayed on the notice;
- in terms of the written notices given, a copy of the written notice sent, as well as:
 - o if registered mail was sent, a list of the registered mail sent (showing the registered mail number, the name of the person the mail was sent to, the address of the person and the date the registered mail was sent);
 - o if normal mail was sent, a list of the mail sent (showing the name of the person the mail was sent to, the address of the person, the date the mail was sent, and the signature of the post office worker or the post office stamp indicating that the letter was sent);
 - o if a facsimile was sent, a copy of the facsimile Report;
 - o if an electronic mail was sent, a copy of the electronic mail sent; and
 - o if a "mail drop" was done, a signed register of "mail drops" received (showing the name of the person the notice was handed to, the address of the person, the date, and the signature of the person); and

NO

• a copy of the newspaper advertisement ("newspaper clipping") that was placed, indicating the name of the newspaper and date of publication (of such quality that the wording in the advertisement is legible).

SECTION G: DESCRIPTION OF THE RECEIVING ENVIRONMENT

All specialist studies must be attached as Appendix G.

Was a specialist study conducted?

1. Groundwater

1.1.

1.2.	Provide the name and or company who conducted the specialist study.				
None	None.				
1.3.	Indicate above which aquifer your proposed development will be located and explain how this has influenced your proposed development.				
a fraction su	According to CapeFarmMapper (accessed May 2021), the proposed development is situated above a fractured aquifer, with a yield of approximately 0.5 - 2.0 l/s. The aquifer is classified as minor, with a low susceptibility and vulnerability. Therefore, it is highly unlikely that the proposed development will have any impact on the existing aquifer and will not influence the proposed development.				
1.4.	Indicate the depth of groundwater and explain how the depth of groundwater and type of aquifer (if present) has influenced your proposed development.				

According to CapeFarmMapper (accessed May 2021), the depth to groundwater is approximately 25.40mbgl, and as identified previously this is a fractured aquifer, it is predicted that the proposed development foundation will not be excessively deep, so as to not impact upon the existing ground water. Therefore, will have minimal influence over the proposed development.

2. Surface water

2.1.	Was a specialist study conducted?	YES	NO
2.2.	Provide the name and/or company who conducted the specialist study.		

Specialist: Debbie Fordham

Company: Sharples Environmental Services.cc

Collaborating Scientist: Dr Brian Colloty Registration: (PR SCI NAT 400268/07)

2.3. Explain how the presence of watercourse(s) and/or wetlands on the property(ies) has influenced your proposed development.

Initially, according to the DEA Screening Tool Report, the proposed site was indicated to have a very high sensitivity in terms of the Aquatic Biodiversity theme, listing the relevant feature as a freshwater ecosystem priority area quartenary catchments. According to CapeFarmMapper (Accessed May 2021), an Aquatic ESA has been identified through the western portion of the site, as seen below.

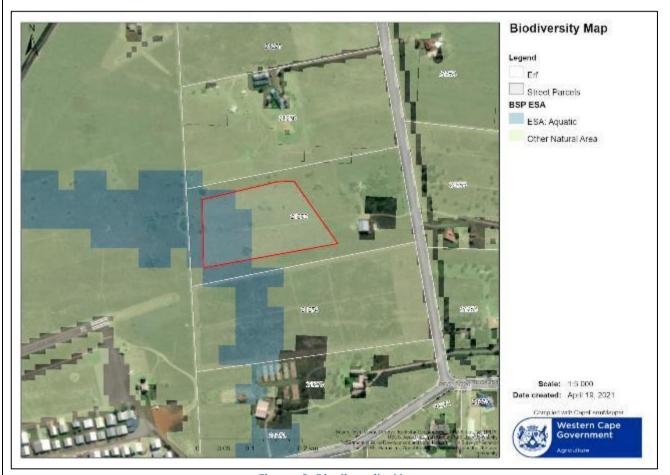


Figure 8: Biodiversity Map

According to the findings by the aquatic specialist, during site verification, and as stated in the Aquatic Biodiversity Verification Assessment, 2021.

Desktop studies indicated:

• South African Inventory of Inland Aquatic Ecosystems (SAIIAE 2018).

According to the data provided by the South African Inventory of Inland Aquatic Ecosystems (SAIIAE 2018) there is no aquatic habitat within or bordering the proposed development site. The NWM identifies a depression wetland situated more than 500m to the west, but no other drainage features on the plateau near the site.

• Western Cape Biodiversity Spatial Plan (WCBSP).

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According to the Western Cape Biodiversity Spatial Plan (WCBSP), Ecological Support Areas (ESA's) are not essential for meeting biodiversity targets but are important as they support the functioning of CBA's and Protected Areas (PA's). ESA's support landscape connectivity, which surrounds ecological infrastructure that provide ecosystem services, and strengthen resilience to climate change. These areas include Endangered vegetation; water source and recharge areas; and riparian habitat around rivers and wetlands. The WCBSP also made a distinction between ESA's in a functional condition (ESA1) and degraded areas in need of restoration (ESA2).

It was determined that there are no CBAs mapped within the study site. However, the BSP data categorises the habitat on the western portion of the site as ESA1 aquatic (Figure 7). According to Helme (2019), this mapping is regarded as very inaccurate as, amongst other data, it is based on the SA vegetation map for this area, which classifies the site as North Langeberg Sandstone Fynbos (which it is not). The vegetation type is not listed as a threatened vegetation type and hence the lack of CBAs within this unit on site.

• Historical Imagery

Historical photographs and satellite imagery show no discernible aquatic features within the site. The imagery did show that majority of the property has been ploughed in the past, but that Fynbos vegetation has since re-established.

According to the on-site verification:

An on-site inspection was conducted on the 21st of April 2021, where it was determined that there is a discrepancy between the environmental status quo versus the environmental sensitivity as identified on the national web based environmental screening tool (Very high). No aquatic habitat was identified within the site or within the 500m Regulated Area of the site. The reason for the discrepancy is likely due to the ESA1 Aquatic classification of a portion of the site. Also, while not noticeable during desktop assessment using 5m contour line data, the onsite topography has a shallow dip in elevation which could be misinterpreted as a drainage area.

It was concluded that the site has no aquatic features and none of the watercourses beyond the study area would be impacted by the proposed project, therefore the site has a very Low aquatic sensitivity status, and the proposed development will not impact aquatic biodiversity, and will therefore have no influence on the proposed development.

The proposed septic tanks and soakaway pits have been noted. This is below the threshold in terms fo the National Water Act, therefore will not require General Authorization.

3. Coastal Environment

3.1.	Was a specialist study conducted?	YES	NO			
3.2.	3.2. Provide the name and/or company who conducted the specialist study.					
None	None.					
3.3.	Explain how the relevant considerations of Section 63 of the ICMA were take influenced your proposed development.	en into account ar	nd explain how this			
	The ICMA was not taken into account as the proposed development will have no impact on any coastal properties or coastal marine environments.					
3.4.	3.4. Explain how estuary management plans (if applicable) has influenced the proposed development.					
This is not applicable, as the proposed site is not close to or in an estuary environment.						
3.5.	Explain how the modelled coastal risk zones, the coastal protection zone, littoral active zone and estuarine functional zones, have influenced the proposed development.					

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None of these zones are applicable, as the proposed site is approximately 4km's from the nearest coastline.

4. Biodiversity

4.1.	Were specialist studies conducted?	YES	NO
4.2.	Provide the name and/or company who conducted the specialist studies.		

<u>Terrestrial Biodiversity and Plant Species</u>

Specialist: Mark Berry (*Pr.Sci.Nat* – Reg Nr: 400073/98) Company: Mark Berry Environmental Consultants

<u>Avifaunal Species</u>

Specialist: Steven W Evans (*Pr.Sci.Nat* – Reg nr: 115201) Company: Steven W Evans Avifaunal Assessments

<u>Butterfly Species</u> Specialist: Dave Edge

Company: Dave Edge & Associates

<u>Agricultural Theme:</u>

Johann Lanz (Pr.Sci.Nat – Reg Nr: 400268/12)

4.3. Explain which systematic conservation planning and other biodiversity informants such as vegetation maps, NFEPA, NSBA etc. have been used and how has this influenced your proposed development.



Figure 9: Botanical specialists track during site verification.

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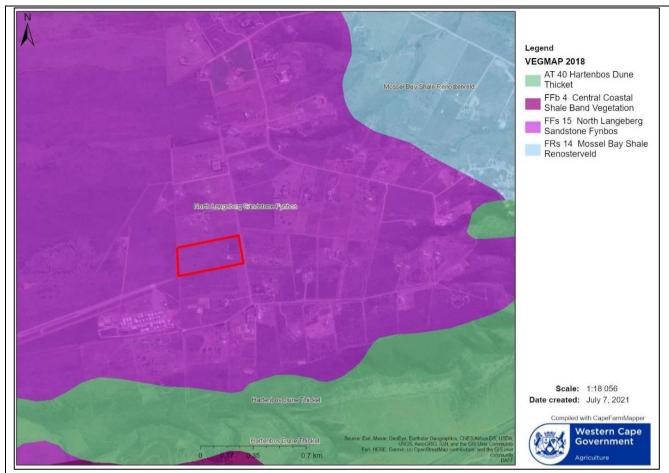


Figure 10: Vegetation Map

A site verification visit was undertaken by the Botanical Specialist, his route was tracked as per Figure 9. It was determined that the vegetation found on site can be described as sandstone fynbos, it also shows an affinity with Gouritz Valley Thicket and Mossel Bay Shale Renosterveld, with the presence of important valley thicket and renosterveld species such as Aloe ferox, Diospyros dichrophylla, Elytropappus rhinocerotis, Metalasia pungens and Lauridia tetragona. Typical fynbos species, such as Protea lanceolata, Erica peltata and Restio albotuberculatus, are however prominent. It comprises a prominent shrub layer (<1 m tall), with a few emerging shrub/tree species, such as Protea lanceolata and Acacia cyclops (rooikrans). Structurally, it can be described as a low closed ericoid shrubland following Campbell's (1981) classification. Height of the vegetation is considerably lower in the mowed areas.

Disturbances noted on site (Figure 11), include mowing activities (Figure 12), small-scale cultivation (Figure 13) and alien infestation, notably Acacia cyclops. The severest disturbances were noted in the eastern part of the site around the shed. However, due to the good quality of the remaining fynbos and high diversity of indigenous species encountered it should return to the original vegetation if further disturbance is ceased.

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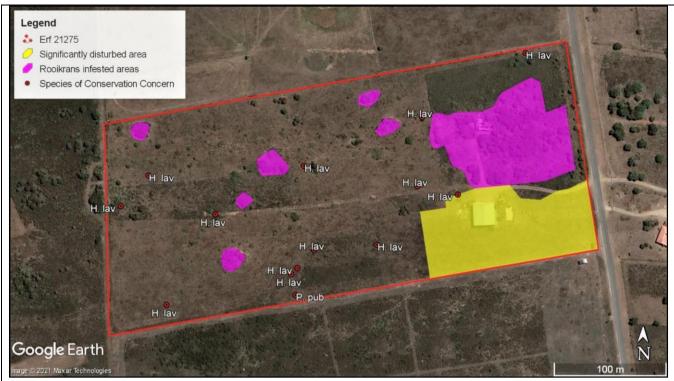


Figure 11: Aerial photograph showing the biodiversity attributes of the site. The untoned area is considered to be good quality fynbos (Botanical Survey, 2021).



Figure 12: Historical aerial photography showing the effect of mowing in March 2017,



Figure 13: Evidence of cultivation on site (Botanical Survey).

It has been confirmed by an agricultural specialist, that the entire site is of medium sensitivity for agriculture, because of its land capability. The site is not used for productive agriculture. The fact that the area has already been subdivided into small parcels of land and is within an area of non-agricultural development, is a significant limitation to its future potential for agricultural production.

The agricultural impact of the proposed development will be to permanently exclude agriculture from the land parcel. The conclusion of this assessment is that the proposed development will not have an unacceptable negative impact on the agricultural production capability of the site. This is substantiated by the fact that the proposed development will occupy land that is not currently utilised for any agricultural production, and also has no future production potential. The limitations on future potential are due to the very small size of the land parcel, which makes agriculture non economically viable, and its location surrounded by small parcels of land with non-agricultural land use.

The proposed development is therefore acceptable, and from an agricultural impact point of view, it is recommended that the development be approved.

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Figure 14: A few indigenous species recorded on site, with Muraltia ericifolia (top left), Hermannia lavandulifolia (top right), Aloe ferox (bottom left) and Erica versicolor (bottom right).

Indigenous shrub species recorded by the Botanical Survey, include:

- Erica discolor (4-nate, suggesting an E. versicolor x discolor hybrid),
- E. versicolor,
- E. peltata (dominant),
- Protea lanceolata,
- Osteospermum moniliferum,
- Helichrysum anomalum,
- H. patulum,
- Oedera imbricata,
- Polygala pubiflora
- Metalasia acuta,
- M. pungens,
- Athanasia quinquedentata,
- Elytropappus rhinocerotis,
- Berkheya armata,
- Indigofera nigromontana,
- Searsia lucida,
- S. pallens,
- Searsia incisa var. effusa,
- S. laevigata,
- Carpobrotus edulis,
- C. acinaciformis,
- Lampranthus elegans,
- Drosanthemum parvifolium,

- Delosperma neethlingiae,
- Acrodon bellidiflorus,
- Crassula ericoides,
- C. nudicaulis var. nudicaulis,
- Aloe ferox,
- Adromischus caryophyllaceus,
- Gnidia nodiflora.
- Gnidia sp,
- Asparagus suaveolens,
- A. multiflorum,
- Hermannia salviifolia.
- H. lavandulifolia (dominant in places),
- H. flammea,
- Muraltia ericifolia (dominant),
- Pelargonium candicans,
- Lobelia tomentosa,
- Jamesbrittenia microphylla,
- Selago nigrescens, S. corymbosa,
- Grewia occidentalis.
- Carissa bispinosa,
- Diospyros dichrophylla,
- Euclea crispa,
- Lauridia tetragona (see Figure 10).

Hemicryptophytes and bulbs recorded include:

- Restio albotuberculatus.
- Cyanotis speciosa,
- Crossyne guttata,
- Haemanthus sanguineus,
- Bobartia robusta,
- Freesia sp.
- Satyrium sp,
- Oxalis ciliaris.
- Massonia setulosa,
- Ledebouria revoluta
- Drimia capensis (common on site).

Following the second visit by the Botanist, during spring, at least two Species of Conservation Concern (SCC) were recorded on site, namely Hermannia lavandulifolia (VuI) and Polygala pubiflora (VuI) (see Figure 14). The latter was recorded by others and it is very difficult to spot if not in flower. There is a fair to good chance that others, such as Ruellia pilosa (VuI) and Haworthia pygmaea var. argenteomaculosa, may also occur on site. These species were recorded by the author and others in the vicinity. According to the online Red List of South African Plants, they are all under threat from crop cultivation, coastal developments and alien infestation. Hermannia lavandulifolia is still well represented in the Mossel Bay area and is frequently encountered. It is abundant on site. Polygala pubiflora is also regularly encountered in the larger Mossel Bay area, but mainly in renosterveld. In this regard, the site has been mapped as medium sensitive.

According to the online Red List of South African Plants, they are all under threat from crop cultivation, coastal developments and alien infestation. *Hermannia lavandulifolia* is still well represented in the Mossel Bay area and is frequently encountered. It is abundant on site.

According to the DEA Screening Tool Report, prepared by Sharples Environmental Services on 8 April 2021, the following species are listed as sensitive species that may also occur on site (due to their threat status, the names of these species are being withheld):

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- Sensitive Species 1024 (\$\$1024)
- Sensitive Species 654 (SS654)

According to the Botanical Survey, Oct 2021, it is unlikely that any of these species occur on site. SS1024 has been recorded in renosterveld in the Gondwana Game Reserve, east of Herbertsdale. It is a regional endemic and listed as Endangered. According to the online Red List, it has "become very rare or extinct throughout much of its former distribution. Much of its known habitat is now replaced with urban expansion, agriculture and forestry". SS654, on the other hand, is listed as Vulnerable. "Its rapid decline along the Cape coast is due to urban and coastal development and alien plant invasion". As far as the author knows, there are no confirmed records of these species from the Aalwyndal area.

Only a few invasive species were recorded on site, namely Acacia cyclops (rooikrans) and A. mearnsii (black wattle). A dense stand of the former was observed in the eastern part of the site, nearby the shed, and a few smaller clumps in the western part. In terms of the National Environmental Management: Biodiversity Act (Act 10 of 2004) Alien and Invasive Species List (2016), the harbouring of black wattle (Category 2 invader) on a property is prohibited without a permit.



Figure 15: Rooikrans infestation to the eastern portion of the site (Botanical Survey, 2021).

It was concluded that approximately 5.8 ha of good quality fynbos (i.e. North Langeberg Sandstone Fynbos) will be cleared. Mitigation in such an instance will be impossible to achieve unless some of the plant material, e.g. bulbs, succulents and topsoil containing fynbos seeds, can be salvaged and reintroduced elsewhere in the area where it can aid rehabilitation and conservation efforts.

The Botanial Survey noted that North Langeberg Sandstone Fynbos is not listed as a threatened vegetation type. It is seemingly well represented and protected in the region. However, if the fragment, located between Albertinia and Mossel Bay, is allocated to a new fynbos type, its conservation status may be less favourable. As it currently stands, the perceived impact on vegetation type is of low to moderate concern. The impact on the biodiversity (CBA) network is also of

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concern, but is probably of the same order as for the vegetation type. The mapped aquatic ESA through the western end of the site seems artificial as no visible watercourse or wetland features were noted on site. This has been confirmed in the Aquatic Compliance Statement (Appendix G.2).

At least two SCC will be directly impacted, namely *Hermannia lavandulifolia* (Vul) and *Polygala pubiflora* (Vul). Both are still frequently encountered by the author and others in the Mossel Bay area. There is a fair to good chance that a few more SCC may occur on site, but not any of the sensitive species listed in the Screening Report.

It has been concluded that is it difficult to recommend the development of the entire site as it will support the continued erosion of Aalwyndal's biodiversity. The setting aside of a portion of the site for conservation is also difficult as one does not know what the future holds for the adjacent areas. Strategic planning in this regard is a priority for the Aalwyndal area and must be pursued. Therefore, the following recommendations/mitigation measures must be considered:

• If the entire site is to be developed, consideration should be given to the salvage of plant material (e.g. bulbs, succulents and topsoil containing fynbos seeds), to be reintroduced elsewhere in the Aalwyndal area where it can aid rehabilitation and conservation efforts. Obviously this can only be achieved if a suitable (similar) receiving area can be found in the area. The summer months should be avoided for search and rescue efforts. Strict control must be exercised to avoid the harming/catching of wildlife in the area during the construction phase. Tortoises (noted on site by the author) should be rescued and relocated to a safe haven elsewhere in the Aalwyndal area.

CapeNature has been included in the public participation, and have been requested to advise on suitable conservation initiatives in and around the area, that could ideally be utilized for the proposed development. The municipality has also been included in the public participation process, should there be municipal initiative that can be utilized.

Explain how the objectives and management guidelines of the Biodiversity Spatial Plan have been used and how has this influenced your proposed development.

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4.4.

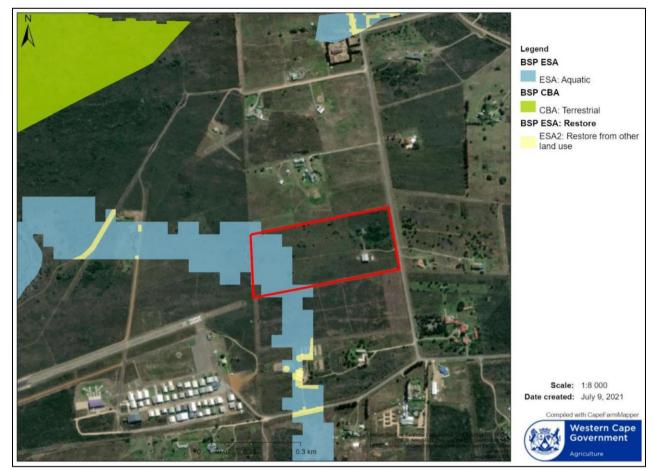


Figure 16: Biodiversity Map.

Only an aquatic ESA1 was identified in terms of CapeFarmMapper, which according to the Western Cape Biodiversity Spatial Plan (WCBSP) is defined as:

(ESA1) Ecological Support Areas are areas that are not essential for meeting biodiversity targets but play an important role in supporting the functioning of PAs or CBAs and are often vital for delivering ecosystem services. They support landscape connectivity, encompass the ecological infrastructure from which ecosystem goods and services flow, and strengthen resilience to climate change. A greater range of land-uses over wider areas is appropriate, subject to an authorisation process that ensures the underlying biodiversity objectives and ecological functioning are not compromised. Cumulative impacts should also be explicitly considered. ESAs that are still likely to be functional (i.e., in a natural, near natural or moderately degraded condition; ESA 1).

For this purpose, an aquatic compliance statement was undertaken to verify the condition of the site, and it was determined that the site holds no aquatic habitats or features. Therefore, this will have no influence on the project.

4.5. Explain what impact the proposed development will have on the site-specific features and/or function of the Biodiversity Spatial Plan category and how has this influenced the proposed development.

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According to the Botanical Survey, being well represented in the larger area, North Langeberg Sandstone Fynbos is not currently listed as a threatened vegetation type (DEA 2011). About 92% of it remains, while 13% is formally conserved in the Boosmansbos Wilderness Area and an additional 45% in mountain catchment areas (Mucina & Rutherford 2006). This rating is reaffirmed in the 2018 National Biodiversity Assessment (Skowno et al. 2019). However, as discussed above under Biogeographical Context, this coastal fragment of the above vegetation type deserves its own unit name and is likely more threatened than stated above, especially in the Mossel Bay area where it is considerably more transformed.

It has been noted that the site's western end forms part of the Mossel Bay CBA network. It protrudes into an aquatic ecological support area (ESA), which connects a series of depression wetlands located to the west with an east-west running watercourse to the south of the site (between the Mossel Bay Airfield and N2). It seems to be artificially routed around the eastern end of the airfield through the site. There is no evidence of any wetlands or watercourses on the site itself, which questions the mapped status of the ESA.

CBA's are defined as areas in a natural condition that are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure (Pool-Stanvliet et al. 2017). These sites are selected for meeting national targets for species, habitats and ecological processes (Pool-Stanvliet et al. 2017). Many of these areas support known occurrences of threatened plant species, and/or may be essential elements of designated ecological corridors. Loss of designated CBA's is therefore not recommended. ESA's, on the other hand, are supporting zones required to prevent the degradation of CBA's and Protected Areas.

With the site protruding into a seemingly artificially mapped aquatic ESA, one can expect a low to medium impact on the network. The proposed development does not pose a direct impact on any mapped CBA's.

An aquatic compliance statement was undertaken, confirming that there are no aquatic habitats on this site, or within 500m radius. This confirms that the impact on the ESA will be negligible as no aquatic habitats are identified.

4.6. If your proposed development is located in a protected area, explain how the proposed development is in line with the protected area management plan.

There is no protected area.

4.7. Explain how the presence of fauna on and adjacent to the proposed development has influenced your proposed development.

According to the screening tool report, the following animal species features were noted:

<u>Table 5: Animal Species Features (DEA Screening Tool).</u>

Sensitivity	Feature(s)	
High	Aves-Circus maurus	
High	Aves-Neotis denhami	
High	Aves-Circus ranivorus	
Medium	Invertebrate-Aneuryphymus montanus	
Medium	Insecta-Lepidochrysops littoralis	
Medium	Sensitive species 5	
Medium	Aves-Campethera notata	
Medium	Aves-Bradypterus sylvaticus	

Avifaunal Compliance Statement:

An avifaunal compliance statement was undertaken by Steven W Evans Avifaunal Assessments, July 2021. At the point of

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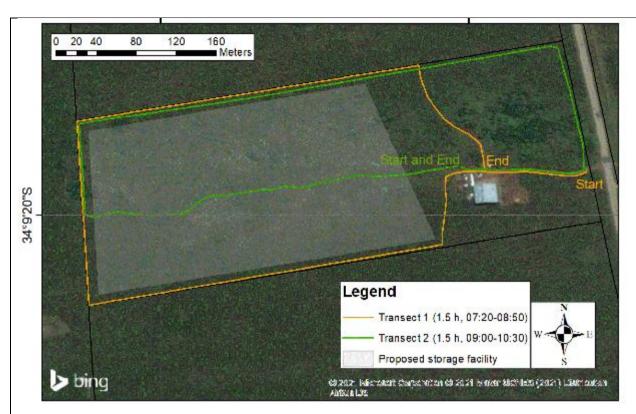


Figure 17: Showing transect lines walked by the Avifaunal Specialist.

The screening report listed four threatened, (two Endangered and two Vulnerable to extinction), birds and one Near Threatened bird, and the list of birds for pentad 3405_2200 listed a further one threatened (Vulnerable) and two Near Threatened birds that could potentially occur on the site proposed for development (Table 6).

Table 6: The five species of birds threatened with extinction identified by the screening report, and an additional three species identified from the SABAP 2 list for pentad 3405 2200 in which the site proposed for development is located (Avifaunal Compliance Statement, 2021).

No	Common name	Scientific name	Global	Regional	Sensitivity	Source
			status	Status	(Scoping	
				(Taylor et al.	Report)	
				2015)		
169	Black Harrier	Circus maurus	VU	EN	High	Screening report/SABAP 2
167	African Marsh Harrier	Circus ranivorus		EN	High	Screening report
219	Denham's Bustard	Neotis denhami	Nt	VU	Medium	Screening report/SABAP2
448	Knysna Woodpecker	Campethera notata	Nt	Nt	Medium	Screening report
611	Knysna Warbler	Bradypterus sylvaticus	VU	VU	Medium	Screening report
105	Secretarybird	Sagittarius serpentarius	VU	VU		SABAP 2
216	Blue Crane	Anthropoides paradisea	VU	Nt		SABAP 2
4123	Agulhas Long-billed Lark	Certhilauda brevirostris		Nt		SABAP 2

CE: Critically Endangered, EN: Endangered, VU: Vulnerable, and Nt: Near Threatened

During the site visit none of the threatened or Near Threatened birds were observed on the site proposed for development.

It was determined that due to the absence of foraging or breeding grounds, the identified species were unlikely to occur on site. The absence of suitable foraging and breeding wetland habitat for African Marsh Harrier (Simmons 2005) explains its absence from the site proposed for development. The absence of large enough trees with natural cavities as nesting sites (Tarboton 2005) for Knysna Woodpecker explains its absence from the site proposed for development. The tall and dense vegetation on the north-eastern corner of the property may contain suitable habitat for Knysna

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Warbler but is probably not extensive enough and is not adjacent to indigenous forest or a watercourse (Smith 2005). This area is not included in the area proposed for development. The remainder of the property, including the area proposed for development; does not contain suitable breeding or feeding thicket or indigenous forest habitat for Knysna Warbler.

A single Black Harrier was observed foraging over an area approximately 1.1 km to the northwest of the centre of the site proposed for development (Figure 18). Black Harrier may occasionally forage over the site proposed for development. However, due to its small size (< 5 ha) and the large amount of suitable foraging and breeding fynbos habitat (Simmons et al. 2005) remaining to the north and west of the site proposed for development, this development will have no impact on Black Harrier.

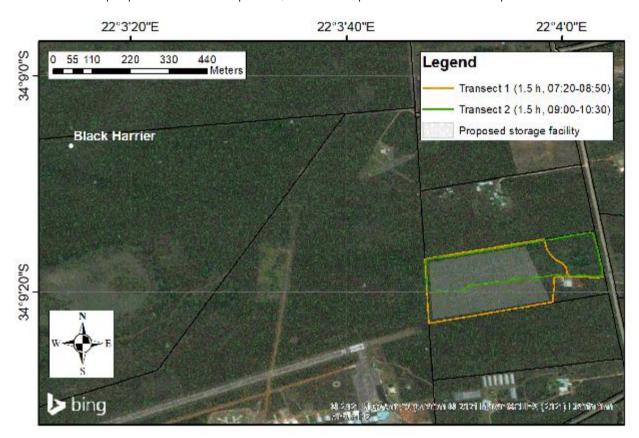


Figure 18: The locality where a Black Harrier was observed foraging approximately 1.1 km northwest of the site proposed for development.

Denham's Bustard, Secretary bird, and Blue Crane are birds that walk and forage on the ground (Allan 2005a & b, Dean & Simmons 2005). These three species may occasionally forage on the site proposed for development. It was determined that there is a large amount of suitable foraging fynbos habitat remaining to the north and west of the site proposed for development, this development will have no impact on the feeding habitat of these three species. No evidence of breeding sites of Denham's Bustard and Blue Crane (Allan 2005a & b) were observed on the property. Secretary birds' nest in the crowns of trees, usually thorn trees (Dean & Simmons 2005). None of the trees on the site proposed for development are large enough to contain the nest of a Secretary bird, and consequently, no Secretary bird nests were observed during the site visit.

The Agulhas Long-billed Lark has been recorded in pentad 3405_2200 by SABAP2 (Appendix 1 of Appendix G3). Only the vegetation that has been cut short along the inside perimeter of the fences, and the first half of the track down the middle of the site proposed for development; contain potential breeding and feeding habitat (Ryan & Dean 2005, De Kock & Lee 2019) for Agulhas Long-billed Lark. The site proposed for development is on the very eastern edge of the distribution range of the Agulhas Long-billed Lark and the birds were probably observed in the western section of this pentad by SABAP2 (Ryan & Dean 2005). The locality is one factor that will probably preclude the presence of Agulhas Long-billed Lark, and none were observed during the site visit.

It has been further noted that the site proposed for development is along the take-off and landing

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paths of aircrafts, from and to Mossel Bay Airport (Figure 18). The use of the site proposed for development by the aerial foraging Black Harrier (Simmons et al. 2005), and large birds such as Denham's Bustard, Secretary bird, and Blue Crane (Allan 2005a & b, Dean & Simmons 2005) would be potentially catastrophic for pilots, their passengers and aeroplanes, and these threatened and Near Threatened birds.

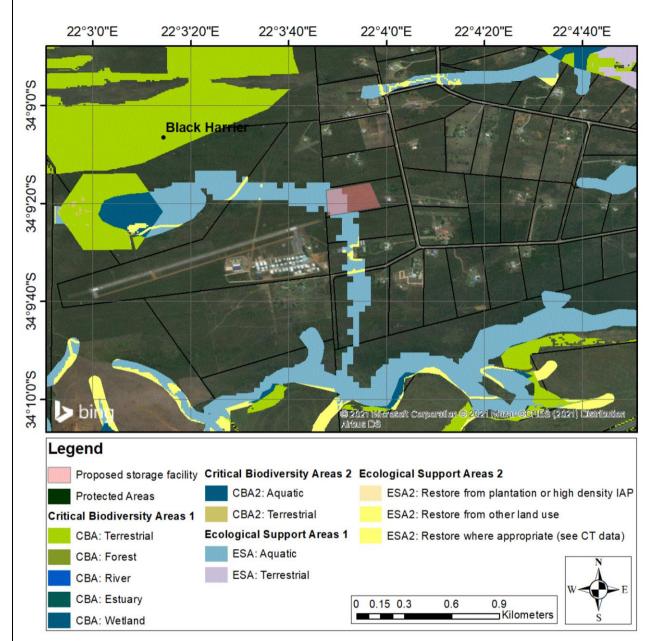


Figure 19: Biodiversity map (Avifaunal Compliance Statement)

Environmental sensitivities identified include:

- The site proposed for development is located within a sub-quaternary catchment that should be managed in a manner that maintains the status of the Blinde River as a river FEPA (Nel et al. 2011).
- The western half of the site proposed for the development of a storage facility is in an Ecosystem Support Area (ESA) (Pool-Stanvliet et al. 2017) (Figure 19).

It was concluded that the proposed development of the storage facility will not have any detrimental impact on any threatened and Near Threated birds or their breeding and feeding habitats. While the specialist makes note of an aquatic ESA, which has been confirmed to be false by the aquatic specialist, it has been noted that this will not affect the movement of the three threatened and two Near Threated birds identified to be present in pentad 3405_2200 by SABAP 2 (Table 1, Appendix 1 of Appendix G3 of this BA report).

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Therefore, the proposed development is acceptable and will have minimal to no impacts on any threatened or Near Threatened birds.

Butterfly Assessment:

A butterfly site verification was undertaken on the 6th of July 2021, by Dave Edge of Dave Edge and Associates. The butterflies recorded in the quarter degree grid square QDGS 3422AA, in which Aalwyndal Erf 21275 is situated in the are listed in Table 7.

Table 7: Potential SCC's on site.

SCC no.	1	2	
Family	Lycaenidae	Lycaenidae	
Common name	Mossel Bay Copper	Coastal Blue	
Scientific name	Aloeides trimenii southeyae	Lepidochrysops littoralis	
IUCN Red List category	EN	EN	
Habitat requirements	Gentle slopes or flat ground, sparsely covered with low shrubs, with bare ground in between.	Rocky limestone or sandstone ridges in coastal fynbos, altitude up to 400m.	
Vegetation types (codes as per Mucina & Rutherford, 2006)	North Langeberg Sandstone Fynbos FFs15; Mossel Bay Shale Renosterveld FRs14; Groot Brak Dune Strandveld FS9	North Langeberg Sandstone Fynbos FFs15; Albertinia Sand Fynbos FFd9; Canca Limestone Fynbos FFl3	
Probability of occurring	Moderately likely (> 50%)	Moderately likely (> 50%)	
Justification for above	Vegetation and habitat types occur at site; records of taxon about 4 km away; 80% of the site has natural vegetation; known butterfly host plants present in good quantities.	Vegetation and habitat types occur at site; records of taxon about 4 km away; 80% of the site has natural vegetation; known butterfly host plant present in good quantities.	

During the initial investigation, there were two species of conservation concern (SCC) considered to be present on the site:

Aloeides trimenii southeyae (EN)

This butterfly has been recorded in QDGS 3422AA 10 km west of Mossel Bay (5 km SW of the development site) and at Hartenbos Heuwels (4 km NE of the development site), as well as in the QDGSs 3421BA & BB in the Albertinia area. It has been recorded in vegetation types FRs14 Mossel Bay Shale Renosterveld, FFs15 North Langeberg Sandstone Fynbos and FS9 Groot Brak Dune Strandveld. There is strong evidence that its larval host plant is either Hermannia lavendulifolia L. or Hermannia saccifera (Turcz.) K. Schum. (Malvaceae) (Edge, 2018). Its host ants are probably in the genus Lepisiota (Edge, 2018).

Lepidochrysops littoralis (EN)

This species has a fairly wide distribution along the south coast, from the De Mond Nature Reserve near Bredasdorp in the west to 7 km west of Mossel Bay (Paradise Coast & Dana Bay) (4 km south of the development site). It has been recorded in vegetation types FFI3 Canca Limestone Fynbos, FFs15 North Langeberg Sandstone Fynbos, AT40 Hartenbos Dune Thicket and FS8 Blombos Strandveld, and it prefers hilltops or higher ground. Its larval host plant is *Selago diffusa* Thunb. (Scrophulariaceae), and its host ants are in the genus *Camponotus*.

A butterfly survey was carried out in October 2021, the date was chosen because it is well within the flight period for both of the SCC butterflies. This means that if the butterflies are not found at that time it is highly unlikely that they occur on the site. Weather conditions were acceptable, and the site was surveyed on foot, starting near the shed, and followed the track shown in Figure 20. Host plants for the SCC butterfly A. t. southeyae (Hermannia lavendulifolia and H. saccifera) were still reasonably

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plentiful in places, particularly in the westernmost part of the site. Host plants for the other SCC butterfly *L. littoralis* (*Selago* sp.) were fairly common in the more northerly parts of the site, where there were also a number of taller trees (*Acacia cyclops*) and shrubs.



Figure 20: Track walked by specialist.

<u>Table 8: Butterflies recorded at Aanwyndal Erf 21275 on 20th October 2021</u>

Species	Waypoints observed	Comments
Aloeides pierus	195	Just one seen
Leptomyrina lara	184	Worn specimen
Pontia helice	196	c. 5 observed
Pseudonympha magus	174-183; 185-186; 188-194	c. 20 observed
Spialia species	174, 187	Unable to catch to identify
Vanessa cardui	173 (bakkie)	Just one seen

The butterflies recorded at the site are listed above. Neither of the SCC butterflies were observed, so it can be concluded with reasonable certainty that they do not occur at the site. Possible reasons for this are that:

- Lepidochrysops littoralis more often occurs on sites that have a rocky limestone substrate, and the sandstone substrate at Erf 21275 is not to its liking.
- The ants that tend the Aloeides trimenii southeyae larvae require a substrate that contains rounded pebbles sized 10–15 cm, and the smaller stones at Erf 21275 are sharp and not rounded.

Table 9: Summary of data

SCC no.	1	2
Family	Lycaenidae	Lycaenidae
Common name	Mossel Bay Copper	Coastal Blue
Scientific name	Aloeides trimenii southevae	Lepidochrysops littoralis

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IUCN Red List category	EN	EN
Habitat required	Gentle slopes or flat ground, sparsely covered with low shrubs, with bare ground in between. Small rounded stones are necessary for the host ants to nest.	Rocky limestone or sandstone ridges in coastal fynbos, altitude up to 400m. Likes to hilltop and fly around tall bushes near highest points.
Habitat observed	Level ground sparsely covered with low shrubs, with bare sandy ground in between. Smaller stones not rounded – broken unevenly, not suitable for the necessary ant nests.	Level ground (not a hilltop or ridge) with sparse quartzite outcrops, and broken rocks and smaller stones. No limestone present. All tall bushes investigated but no L. littoralis seen.
Host plant(s) required	Hermannia lavandulifolia and/ or Hermannia saccifera.	Selago diffusa or similar.
Host plants observed	Both of the above plentiful in places.	A Selago species is quite plentiful and may be suitable for use as a host plant.
Vegetation types required (codes as per Mucina & Rutherford, 2006)	North Langeberg Sandstone Fynbos FFs15; Mossel Bay Shale Renosterveld FRs14; Groot Brak Dune Strandveld FS9	North Langeberg Sandstone Fynbos FFs15; Albertinia Sand Fynbos FFd9; Canca Limestone Fynbos FFI3
Vegetation type occurring	North Langeberg Sandstone Fynbos FFs15	North Langeberg Sandstone Fynbos FFs15
Adults observed	Nil	Nil
Conclusions	This SCC A. t. southeyae does not occur on the site, despite its host plants being plentiful. It prefers the ground surface to have scattered rounded stones for its host ants to nest under.	This SCC L. littoralis does not occur on the site despite the presence of its host plant. The lack of a limestone substrate and the lack of prominence of the site (height above surroundings) are the most likely reasons.

It was concluded that none of the SCC individuals were found. Consequently, it can be concluded that:

- Since the SCC butterflies have not been found at the site the sensitivity for the terrestrial animal species (butterflies) can now be reduced to "Low" sensitivity.
- There are therefore no impact management actions and outcomes, or any monitoring requirements for inclusion in the Environmental Management Programme.
- The compliance statement is not subject to any conditions.
- No assumptions have been made in reaching these conclusions, and there are no significant uncertainties or gaps in knowledge or data.

Other Faunal Species:

During the site visit undertaken by the EAP, Aquatic, Butterfly, Botanical and Avifaunal specialists, it was determined that none of the other species identified as per the screening tool, were seen on site:

- Sensitive Species 5 (SS 5)
 - Sensitive species 5, as noted by SANBI, is a species that is widely distributed across central,

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western and southern Africa, they are restricted to the coastal provinces in South Africa, but the species has been introduced into captive-breeding systems around the country. Typical habitat is coastal forest, thick coastal bushes and thicket where they can hide from predators and rest, and therefore require permanent concealment. This species is a herbivore, predominantly feeding on plants, and mutually co-exist with fruit-eating animals since they feed on the freshly fallen fruits and leaves resulting from the activities of these animals.

- Given that the site has shown disturbance, including mowing of a significant portion of the central and western portion of the site, is noted by the Botanical specialist in 2017, the site was exposed, and therefore could not provide the necessary forest cover, food or concealment required by the Species, within this area, the site is fenced and none of the specialists involved, have noted seeing the species. Furthermore, during the EAPs site visit we saw no evidence of Sensitive Species 5. the vegetation is not typical or suitable for this species habitat at all. Together with the regular domestic disturbances on the neighbouring property and air traffic which regularly flies 30 meters above the property when landing, and the fact that the property is only 7 hectares it can be concluded that SS 5 does not occur on the property. Therefore, we can conclude that the potential for the species to be present is highly unlikely.

Yellow-winged Agile Grasshopper (Aneuryphymus montanus)

- In terms of the Yellow-winged Agile Grasshopper (Aneuryphymus montanus), it has been indicated in Brown, 1960* that the Aneuryphymus montanus is "locally common amongst partly burnt stands of evergreen Sclerophyll in the rocky foothills." The proposed site is not located within the rocky foothills, and does not boast evergreen Sclerophyll, but is dominated by North Langeberg Sandstone Fynbos. Furthermore, Brown, 1960* indicates that Aneuryphymus montanus, is an, "active geophilous insect which readily flies off when disturbed and is easily distinguished in flight". Taking this into consideration, and the fact that multiple specialist visits and EAP visits have occurred, it serves to indicate that were this species present it would have been spotted on site, furthermore, should disturbance occur, these grasshoppers would flee into the adjacent open properties, and this site has shown disturbance over the years, even in the portion of the site indicated to have good Fynbos.

*Brown, H. D. (1960). 'New grasshoppers (Acridoidea) from the Great Karroo and the South Eastern Cape Province'. Journal of the entomological Society of Southern Africa 23.1, pp. 126–143.

5. Geographical Aspects

Explain whether any geographical aspects will be affected and how has this influenced the proposed activity or development.

According to the Aquatic Biodiversity Verification Assessment, 2021. The contour data indicated that the topography or the study area is relatively flat, with no landscape features, however, while not noticeable during desktop assessment using 5m contour line data, the onsite topography has a shallow dip in elevation which was misinterpreted as drainage area, which may account for the mapping tool identifying this area as having an Aquatic ESA 1.

6. Heritage Resources

6.1.	Was a specialist study conducted?	YES	NO
6.2.	Provide the name and/or company who conducted the specialist study.		

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None.

6.3. Explain how areas that contain sensitive heritage resources have influenced the proposed development.

The site contains no sensitive heritage resources.

A NID has been issued to Heritage Western Cape, on the 11th of August 2021, however, no feedback has been obtained on the status of this NID. Heritage Western Cape has been included as an I&AP.

7. Historical and Cultural Aspects

Explain whether there are any culturally or historically significant elements as defined in Section 2 of the NHRA that will be affected and how has this influenced the proposed development.

The site contains no cultural or historically significant elements as defined in Section 2 of the NHRA.

A NID has been issued to Heritage Western Cape, on the 11th of August 2021, however, no feedback has been obtained on the status of this NID. Heritage Western Cape has been included as an I&AP.

8. Socio/Economic Aspects

8.1. Describe the existing social and economic characteristics of the community in the vicinity of the proposed site.

The MSDF (2018) states that the community whereby the proposed project site is situated in – Aalwyndal, is located within the Voorbaai - Hartenbos region. The region has a total population of 7073 individuals and 2634 households, with the average household size being 2.7. The construction of the N2 in the 1980s gave Aalwyndal spatial significance, leading to the development of Langeberg shopping mall and the transformation of Diaz Industria into a more light industrial, mixed-use business node including offices. Subsequently, Aalwyndal had undergone a precinct planning exercise as it was identified as the next major development area within the municipality.

The MSDF (2018) identifies a noticeable pattern that appears to be a slow take-up and construction of houses on larger o properties. This suggests there is a re-positioning in the market towards better located smaller dwellings on smaller plots. Activity levels are noted to be intense at the Louis Fourie/Aalwyndal road intersection and beyond. Traffic congestion is experienced over increasingly longer periods of the day and outside of the tourist season and there is a lot of pedestrian traffic although there are a few pedestrian and non-motorised transport facilities along the route.

The Mossel Bay IDP (2017) notes that the Commercial services sector contributed more than 50% towards the Municipalities GDP in 2015 and has grown at a steady pace of 4.4% per year between 2005 and 2015, faster than the municipal average of 3.2%. This sector employed 50,7 per cent of the Municipality's workforce (making it the largest employer). A large proportion (27,6%) of the industry's workforce are classified as Semi-skilled, while 10,8 per cent are classified as low-skilled and 22,0% are classified as skilled.

8.2. Explain the socio-economic value/contribution of the proposed development.

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Storage is regarded as being a part of the Commercial service sector by the Mossel Bay IDP (2017). It is further noted that the Commercial services sector contributed more than 50% towards the Municipalities GDP in 2015 and has grown at a steady pace of 4.4% per year between 2005 and 2015, faster than the municipal average of 3.2%. This sector employed 50,7 per cent of the Municipality's workforce (making it the largest employer). A large proportion (27,6%) of the industry's workforce are classified as Semi-skilled, while 10,8 per cent are classified as low-skilled and 22,0% are classified as skilled. As shown historically, the development of a Storage unit facility will continue to contribute towards the Municipal GDP and the socio-economic status of the community by expanding the Commercial services Sector and providing a range of skilled job opportunities to the local area. The development of the Commercial services sector will continue to increase the GDP and subsequently improve the Municipalities ability to provide basic services and improve the socio-economic status,

8.3. Explain what social initiatives will be implemented by applicant to address the needs of the community and to uplift the area.

The Proponent intends to utilise local contractors, engineers and town planners during the planning and construction phase of the development, while obtaining construction related materials from local suppliers. The applicant further intends to employ people from the local community, providing various payment and benefit schemes, such as medical aid and transport.

8.4. Explain whether the proposed development will impact on people's health and well-being (e.g. in terms of noise, odours, visual character and sense of place etc) and how has this influenced the proposed development.

It is not anticipated that the proposed development will have long-term impacts on people's health and well-being. As temporary nuisances may arise during construction, however, mitigation has been recommended to reduce the significance of the impacts, and they are not predicted to extend into operational phase.

SECTION H: ALTERNATIVES, METHODOLOGY AND ASSESSMENT OF ALTERNATIVES

1. Details of the alternatives identified and considered

1.1. Property and site alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred property and site alternative.

The proposed site is ERF 21275, situated in Aalwyndal, on Portion 240, Vyf Braakke Fontein Farm, approximately 13km's north-west of Mossel Bay Central. The site is approximately 77 529m², mostly remains untransformed and is largely covered by indigenous vegetation. It is currently used for horse grazing pasture, as well as a large storage shed and small-scale tillage for cultivation, of garlic.

There are no site alternatives, other than the No-Go Alternative, which means the site status quo will persist, and there will be no transformation. As the landowner is the proposed developer, and the proposal is in line with his business initiatives.

Provide a description of any other property and site alternatives investigated.

No other property has been considered.

Provide a motivation for the preferred property and site alternative including the outcome of the site selectin matrix.

The property is owned by the applicant, who's company provides appropriate storage facilities. According to the Aalwyndal Precinct Plan, by Mossel Bay Local Municipality, the Local Spatial Development Plan, dated January 2018, indicates that the proposed site is one of 6 sites, directly adjacent to the airport, that is intended to be used as a commercial property, that may be utilized for single storey airport related uses. Furthermore, the property is ideally located off of a main distributer road.

The proposed site is mostly vacant, with some form of disturbance, including past ploughing, mowing,

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horse grazing and trampling, and alien invasive encroachment such as dense Rooikrans, that poses a fire hazard. According to the aforementioned Local Spatial Development Plan, dated January 2018, there are open spaces earmarked throughout the surrounding area, which will maintain and support the endangered vegetation as identified throughout the area. Given the site is located adjacent to the Mossel Bay airport, the uses of the site are fairly limited, and as advised by both the avifaunal, aquatic, and agricultural specialist, the proposed development can be accommodated. In terms of the biodiversity, botanical species can be rescued and donated for conservation programmes in and around the Aalwyndal area.

Provide a full description of the process followed to reach the preferred alternative within the site.

The landowner of Erf 21275 is the developer, and desires to transform his site, in order to house a facility that is in line with his business initiatives. The Proponent has a number of storage businesses country wide and has identified Mossel Bay as an area for growth in the storage market. There are many reasons why storage is required in Mossel Bay but the influx of people from up country is the main driver. Due to the high cost of land and the fact that the site is not zoned for Agriculture as well as the fact that it is not ideal for residential purposes means that this site is suitable for the construction of storage units.

Provide a detailed motivation if no property and site alternatives were considered.

The landowner of Erf 21275 is the developer. Other sites may have been considered prior to purchasing the relevant site, however, the other sites may have been more expensive due to their proximity to services such as shops and malls and located along the major routes or access or zoning issues would have prevented these other sites from being chosen. ERF 21275, is ideally located for the purpose for which the proponent intends to utilize it for.

List the positive and negative impacts that the property and site alternatives will have on the environment.

Positive Impacts on the Environment - Preferred Site:

- The creation of areas where goods can be stored away from more central areas better suited to housing
- The creation of jobs and stimulus to the local economy in terms of building supplies and infrastructure
- Creation of jobs leads to opportunities for skills transfer and social stability
- Potential to transform a site that would otherwise endanger wandering bird species, that would be located within the flightpath of Mossel Bay Airport.

Negative Impacts on the Environment - Preferred Site:

- Transformation of a predominantly natural area.
- Removal and destruction of indigenous vegetation
- General construction impacts if not managed according to an EMP. Noise and excessive activity that may cause disturbance to any fauna present, in and around site.
- Inclusion of hardened surfaces which could lead to excess runoff.

1.2.	Activity alternatives	to avoid	negative ir	npacts,	mitigate	unavoidable	negative	impacts	and	maximise	positive
	impacts.										

Provide a description of the preferred activity alternative.

Provide a description of any other activity alternatives investigated.

Provide a motivation for the preferred activity alternative.

Provide a detailed motivation if no activity alternatives exist.

List the positive and negative impacts that the activity alternatives will have on the environment.

1.3. Design or layout alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts

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The Preferred Layout 1 will result in the entire site being cleared, and will entail:

- The construction of a storage facility, extending across Erf 21275, accommodating approximately 1 832 storage units of varying sizes, that will be used for the storage of private goods, including but not limited to furniture, caravans, equipment, etc, as well to be utilized for airport storage. Unit sizes proposed:
 - 158 x (±3mx3m)
 - 1674 x (±3mx6m)
- Construction of:
 - A 39m² office with male and female toilet and hand wash basin. Inclusive of small kitchenette for office staff.
 - A 57m² guardhouse with toilet and hand wash basin.
 - A 97m² caretaker flat.
- Construction of a 2.4m Palisade fence with Electrical fence over (perimeter fence).
- Approximately 346 parking spaces will be provided, with an additional 8 visitors parking.
- Dust free interlocking paving and grass blocks.



Figure 21: Proposed Preferred Layout Plan.

Provide a description of any other design or layout alternatives investigated.

Alternative Layout 2 will also entail the clearance of the entire site. The proposed development will entail:

- The construction of a storage facility, extending across Erf 21275, accommodating approximately 977 storage units of varying sizes, that will be used for the storage of private goods, including but not limited to furniture, caravans, equipment, etc, as well to be utilized for airport storage. Unit sizes proposed:
 - $-150 \times (\pm 3 \text{mx} 3 \text{m})$
 - 795 x (±3mx6m)

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- 14 x (±9mx20m)
- 18 x (±9mx25m)
- Accommodation will be made for a manager and security office on site, as well as ablution facilities within the building.
- Perimeter fencing.
- Approximately 372 parking spaces.
- Construction materials include concrete block or brick with corrugated metal roof.

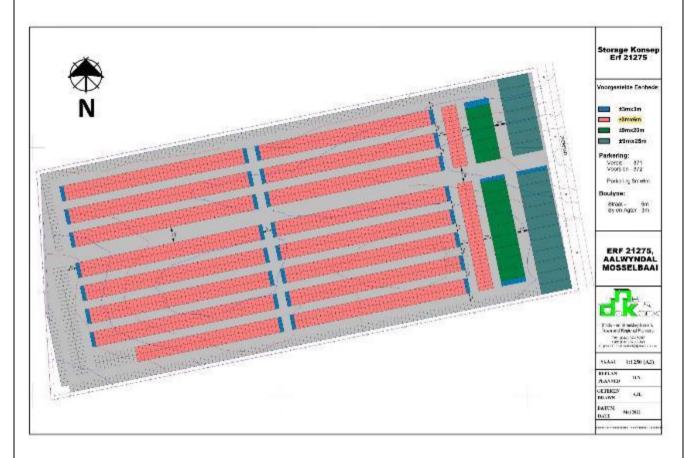


Figure 22: Proposed Alternative Layout 2.

No-Go Alternative: The no-go alternative indicates that the status quo will persist, and no development will be undertaken.

Provide a motivation for the preferred design or layout alternative.

While the Preferred Alternative is similar to the Alternative Layout 2, whereby clearance is throughout. The Preferred Alternative 1 allows for:

- A higher number of storage units to be accommodated.
- Gives consideration to high surface water infiltration infrastructure, e.g. grass-blocks, to be positioned throughout the site to address stormwater, thereby minimizing hard surfaces as far as possible and where not possible, high-permeable paving shall be provided.
- The layout also accommodates for roof rainwater flow-off, which shall be accumulated in rainwater tanks of minimum 20kl/large roof and 10kl/smaller roof to attenuate stormwater.
- Accommodates improved facilities for the caretaker and guard.

Provide a detailed motivation if no design or layout alternatives exist.

Alternatives have been considered.

List the positive and negative impacts that the design alternatives will have on the environment.

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Preferred Alternative Layout 1:

Positive:

- More storage units, therefore catering to more people.
- Integration of solar power, rainwater collection, and high infiltration surfaces, to address issues in terms of stormwater management.
- Single level.

Negative:

- Clearance of the entire site.
- Impact on terrestrial biodiversity.

Alternative Layout 2:

Positive:

- An adequate number of storage units, of various sizes, therefore catering to a sufficient number of people.
- Single level.

Negative:

- Higher area of hardened surfaces throughout, high impact on stormwater management,
 therefore risk to adjacent unsurfaced properties.
- No consideration for rainwater collection, solar power.
- Fewer units
- Impact on terrestrial biodiversity.
- Clearance of the entire site.

No-Go Alternative:

Positive:

- Status quo persists.
- No immediate danger to the terrestrial biodiversity (cannot be guaranteed long-term, if development proceeds around the site).

Negative:

- Although fenced site can be impacted by illegal land invasions, especially if development persists in the surrounding area.
 - This will have detrimental impacts on the terrestrial biodiversity, given that this activity has no governed environmental management.
- 1.4. Technology alternatives (e.g., to reduce resource demand and increase resource use efficiency) to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred technology alternative:

Provide a description of any other technology alternatives investigated.

Provide a motivation for the preferred technology alternative.

Provide a detailed motivation if no alternatives exist.

List the positive and negative impacts that the technology alternatives will have on the environment.

1.5. Operational alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred operational alternative.

Preferred Operational Alternative 1: Storage Facility

As per the current proposal and in line with the municipal Local Spatial Development Plan, dated January 2018, proposed storage facility can be efficiently managed and located on site.

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Provide a description of any other operational alternatives investigated.

Operational Alternative 2: Residential Development.

The current zoning of the property is Single Residential Zone I, of which the objective would be to provide for residential development where the predominant type of accommodation is a dwelling house for a single family (dwelling house, or dwelling house and second dwelling or double dwelling house), where each dwelling has its own land unit, and adequate outdoor space.

Provide a motivation for the preferred operational alternative.

The preferred alternative has been designed and will utilize majority of the site, for storage, meaning that it can provide a service to a greater percentage of the community, as compared to the Operational Alternative 2, that would only cater to the select residents. Residents would not only have to endure aircraft coming in to land or taking off approximately 50 meters above their heads but it is also a hazard should one of the aeroplanes malfunction.

Furthermore, the site being located directly adjacent to the airport, indicates that the development will have permanent issues such as noise nuisances, etc, due to the daily movement and activity at the airport next door. The proposed site is in the flight path of the Mossel Bay runway.

Table 10: Operational Alternatives compared.

	Preferred Operational Alternative 1	Operational Alternative 2
Location next to airport	 Can be utilized for airport storage. No noise issues. Visual impacts, can be mitigated. 	 Noise and visual issues. Any incidents at the airport, such as a plane crash, etc. can endanger the lives of the proposed residents. Fuel dumping
Social benefits	Can be utilized by majority of the community.	Can only be used by residents of housing on site.
Design	 Designed to budget. Very low electricity and water usage. Storage Units will not have power apart from lighting which could be powered by mainly solar. Only the guard house admin office and ablutions will need water and electricity. 	 Will need to be redesigned. Additional services will be required.
Accessibility	According to the Local Spatial Development Plan, dated January 2018, Naagtegaal road, is considered to be a main distributor road. As the site is directly accessible off of the main distributor road. Accessible to airport.	Directly onto a main distributor road. This road may prove to be busy and noisy, and potential movement of heavy vehicles such as trucks, can have an impact on the condition of the road.
Landowner Consent	The landowner is the	

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	developer, and intends to develop the area as per the proposal. This is the most feasible option for the developer.	 The landowner does not intend on utilizing the property for residential purposes and is more familiar with the storage unit market than the housing market
Services	Minimal water and sewage as well as electrical connections will need to be provided.	 Will lead to the development of additional infrastructure to accommodate for additional residential development.

In conclusion, the Operational Alternative 1: Storage Unit is the preferred, as it is the most reasonable and feasible option, as it is ideally suited for this location, without experiencing long-term impacts that will compromise the efficiency of the land use, ie. as a residential development, long-term impacts such as noise, traffic, etc, will result in issues for potential residents.

Provide a detailed motivation if no alternatives exist.

One Alternative has been explored, as above.

List the positive and negative impacts that the operational alternatives will have on the environment.

Preferred Operational Alternative 1:

Positive Impacts on the Environment:

- There will be minimal waste produced, as this is a storage facility, there may not be daily activity on site.
- There will be minimal noise created, therefore disturbance is highly unlikely.
- There will be no aquatic area impacted upon.
- Appropriate stormwater infrastructure will guide stormwater flow and disperse it into the environment without creating erosion.

Preferred Operational Alternative 1:

Negative Impacts on the Environment:

- Clearance of more than 1ha of indigenous vegetation.
- Increase in hardened surfaces.
- Potential for pollutants to enter the environment, via stormwater run off, from parking area.

Operational Alternative 2:

Positive Impacts on the Environment:

- Smaller area transformed, therefore less vegetation removal.
- Less hardened surfaces.

Operational Alternative 2:

Negative Impacts on the Environment:

- Potential for higher volumes of pollution, litter, wastewater, etc, as a result of daily human activity.
- Potential for disturbance and destruction of species of conservation concern, as residents may have access to this vegetation.

1.6. The option of not implementing the activity (the 'No-Go' Option).

Provide an explanation as to why the 'No-Go' Option is not preferred.

The 'no-go' option will result in the persistence of the status quo. While the site will remain mostly untransformed and contain mostly indigenous vegetation, the existing disturbances will persist such as the presence of the woody alien invasive species, horse grazing pastures and trampling of vegetation, as well as a large storage shed and small-scale tillage for cultivation.

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According to the Local Spatial Development Plan, dated January 2018, the site is earmarked for development, and along with the neighbouring properties, the site is intended to be used as commercial property, for storage purposes, to be utilized by the airport. If the site remains this way, and the surrounding properties are developed as planned the indigenous vegetation may still be at risk, from impacts radiating from the neighbouring developments.

Furthermore, if the proposed commercial properties are conveniently located adjacent to the existing Mossel Bay Airport and contains disturbance to some extent. Utilizing any other areas, around Mossel Bay Airport, may result in pristine vegetation on a site that contains no disturbance.

1.7. Provide and explanation as to whether any other alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist.

All alternatives have been discussed above.

1.8. Provide a concluding statement indicating the preferred alternatives, including the preferred location of the activity.

The preferred alternative layout utilizes the space effectively, while integrating green initiatives, that aid in water conservation, and reducing the hardened footprint of the development, resulting in improvements to the stormwater management. The proposed site is ideal for storage purposes, and does not compromise on the potential to develop Aalwyndal, for the planned purposes, as addressed in the municipal polices and need and desirability. In fact, the proposed development will align with the 2018 Precinct Plan for the area and assist in starting the process that will see the Aalwyndal area progress toward the planned economic development targets, as set out by the municipality.

"No-Go" areas

Explain what "no-go" area(s) have been identified during identification of the alternatives and provide the co-ordinates of the "no-go" area(s).

There have been no "no-go" areas identified as per the specialist input. However, it will be recommended in the EMPr that areas beyond the approved working corridor and access corridors, be considered "no-go" areas, to avoid disturbance from expanding beyond the approved footprint.

3. Methodology to determine the significance ratings of the potential environmental impacts and risks associated with the alternatives.

Describe the methodology to be used in determining and ranking the nature, significance, consequences, extent, duration of the potential environmental impacts and risks associated with the proposed activity or development and alternatives, the degree to which the impact or risk can be reversed and the degree to which the impact and risk may cause irreplaceable loss of resources.

The assessment criteria utilized in this environmental impact assessment is based on, and adapted from, the Guideline on Impact Significance, Integrated Environmental Management Information Series 5 (Department of Environmental Affairs and Tourism (DEAT), 2002) and the Guideline 5: Assessment of Alternatives and Impacts in Support of the Environmental Impact Assessment Regulations (DEAT, 2006).

Determination of Extent (Scale):

Site specific	On site or within 100 m of the site boundary.
Local	The impacted area includes the whole or a measurable portion of the site, but could affect the area surrounding the development, including the neighbouring properties and wider municipal area.

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Regional	The impact would affect the broader region (e.g. neighbouring towns) beyond the boundaries of the adjacent properties.	
National	The impact would affect the whole country (if applicable).	

Determination of Duration:

Temporary	The impact will be limited to the construction phase.
Short term	The impact will either disappear with mitigation or will be mitigated through a natural process in a period shorter than 2 years.
Medium term	The impact will last up to the end of the construction phase, where after it will be entirely negated.
Long term	The impact will continue for the entire operational lifetime of the development but will be mitigated by direct human action or by natural processes thereafter.
Permanent	This is the only class of impact that will be non-transitory. Such impacts are regarded to be irreversible, irrespective of what mitigation is applied.

Determination of Probability:

Improbable	The possibility of the impact occurring is very low, due either to the circumstances, design or experience.
Probable	There is a possibility that the impact will occur to the extent that provisions must therefore be made.
Highly probable	It is most likely that the impacts will occur at some stage of the development. Plans must be drawn up to mitigate the activity before the activity commences.
Definite	The impact will take place regardless of any prevention plans.

Determination of Significance (without mitigation):

No significance	The impact is not substantial and does not require any mitigation action.
Low	The impact is of little importance but may require limited mitigation.
Medium	The impact is of sufficient importance and is therefore considered to have a negative impact. Mitigation is required to reduce the negative impacts to acceptable levels.
Medium-High	The impact is of high importance and is therefore considered to have a negative impact. Mitigation is required to manage the negative impacts to acceptable levels.
High	The impact is of great importance. Failure to mitigate, with the objective of reducing the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation is therefore essential.
Very High	The impact is critical. Mitigation measures cannot reduce the impact to acceptable levels. As such the impact renders the proposal unacceptable.

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Determination of Si	gnificance (with mitigation):
No significance	The impact will be mitigated to the point where it is regarded to be insubstantial.
Low	The impact will be mitigated to the point where it is of limited importance.
Medium	Notwithstanding the successful implementation of the mitigation measures, the impact will remain of significance. However, taken within the overall context of the project, such a persistent impact does not constitute a fatal flaw.
High	Mitigation of the impact is not possible on a cost-effective basis. The impact continues to be of great importance, and, taken within the overall context of the project, is considered to be a fatal flaw in the project proposal.

Determination of Reversibility:

Completely Reversible	The impact is reversible with implementation of minor mitigation measures
Partly Reversible	The impact is partly reversible but more intense mitigation measures
Barely Reversible	The impact is unlikely to be reversed even with intense mitigation measures
Irreversible	The impact is irreversible and no mitigation measures exist

Determination of Degree to which an Impact can be Mitigated:

Can be mitigated	The impact is reversible with implementation of minor mitigation measures
Can be partly mitigated	The impact is partly reversible but more intense mitigation measures
Can be barely mitigated	The impact is unlikely to be reversed even with intense mitigation measures
Not able to mitigate	The impact is irreversible and no mitigation measures exist

Determination of Loss of Resources:

No loss of resource	The impact will not result in the loss of any resources
Marginal loss of resource	The impact will result in marginal loss of resources
Significant loss of resources	The impact will result in significant loss of resources
Complete loss of resources	The impact will result in a complete loss of all resources

Determination of Degree to which an Impact can be avoided:

High	The impact is completely avoidable
Medium	The impact is avoidable with moderate mitigation

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Low	The impact is difficult to avoid and will require significant mitigation	
Unavoidable	The impact cannot be avoided	

Determination of Degree to which an Impact can be managed:

High	The impact is completely manageable
Medium	The impact is manageable with moderate mitigation
Low	The impact is difficult to manage and will require significant mitigation
Unmanageable	The impact cannot be managed

Determination of Cumulative Impact:

Negligible	The impact would result in negligible to no cumulative effects
Low	The impact would result in insignificant cumulative effects
Medium	The impact would result in minor cumulative effects
High	The impact would result in significant cumulative effects

4. Assessment of each impact and risk identified for each alternative

Note: The following table serves as a guide for summarising each alternative. The table should be repeated for each alternative to ensure a comparative assessment. The EAP may decide to include this section as Appendix J to this BAR.

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	PREFERRED ALTERNATIVE 1 LAYOUT	ALTERNATIVE 2 LAYOUT	NO-GO ALTERNATIVE
		, DESIGN AND DEVELOPMENT PHASE	NO OO ALIEMWANIYE
Potential impact and risk:	Impact of Construction Activities on Veget	ation Type and the Biodiversity Network	
	Langeberg Sandstone Fynbos) will be clea	g any part of it. This implies that about ared. Mitigation in such an instance will be topsoil containing fynbos seeds, can be sa	esented will result in the entire site being 5.8 ha of good quality fynbos (i.e. North impossible to achieve unless some of the lyaged and reintroduced elsewhere in the
	protected in the region. However, if the fitype, its conservation status may be less to moderate concern. The impact on the	ragment, located between Albertinia and avourable. As it currently stands, the percebiodiversity (CBA) network is also of concei	De. It is seemingly well represented and Mossel Bay, is allocated to a new fynbos eived impact on vegetation type is of low rn, but is probably of the same order as for eems artificial as no visible watercourse or
		d others in the Mossel Bay area. There is a t	and Polygala pubiflora (Vul). Both are still fair to good chance that a few more SCC
	vegetation. Rooikrans has however enciripped areas. If the general labour is a	roached onto the property and establish appointed to remove alien invasive spe to the indigenous vegetation, particularly	ned and is largely covered by indigenous ed dense tree pockets on the previously cies, without appropriate environmental SCC identified on the site. During clearing ed or trampled.
Nature of Impact:	Negative	Negative	Negative
Extent, duration and magnitude of impact:	Site specific and permanent	Site specific and permanent	Local and long-term
Consequence of impact or risk:	 Loss of indigenous vegetation. Soil exposure. Impact on SCC. 	Loss of indigenous vegetation.Soil exposure.Impact on SCC.	 No construction activity, the status quo will persist. Woody alien invasive vegetation remains on site. If general labour is appointed

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			 without proper management: Loss or damage to indigenous vegetation, such as SCC. Loss or harm to local fauna, if proper procedures are not followed.
Probability of occurrence:	High	High	Medium
Degree to which the impact may cause irreplaceable loss of resources:	Medium - High	Medium - High	High
Degree to which the impact can be reversed:	Low	Low	Low
Indirect impacts:	 Dust creation, leading to nuisances for surrounding area. Soil disturbance caused by earthworks will provide ideal conditions for the establishment of alien invasives. 	 Dust creation, leading to nuisances for surrounding area. Soil disturbance caused by earthworks will provide ideal conditions for the establishment of alien invasives. 	Alien invasive species persist.
Cumulative impact prior to mitigation:	Alien invasive establishment.	Alien invasive establishment.	 Woody alien invasive vegetation increases the fuel load, and can burn substantially hotter than indigenous vegetation, leading to biodiversity loss, soil damage and resultant erosion, and potentially uncontrollable veld fires that threaten private property. Potential for permanent loss of biodiversity.
Significance rating of impact prior to mitigation (e.g. Low,	Medium (-)	Medium (-)	Medium (-)

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Medium, Medium- High, High, or			
Very-High)			
Degree to which	Medium	Medium	Medium
the impact can	Modient	Modient	Modient
be avoided:			
Degree to which	Medium - High	Medium - High	Medium
the impact can be managed:			
Degree to which	Medium - High	Medium - High	Medium
the impact can	Two die in Thigh	TWO GIGHT THIST	Modient
be mitigated:			
Proposed mitigation:	General		General:
minganon.	,	nd rescue of fauna and plant material as	In terms of Section 28, of the
	recommended by the Botanical S	pecialist, prior to the commencement of	National Environmental
	works.		Management Act, 1998 (Act 107
	 Where necessary, liaise with the N 	Mossel Bay Local Municipality, regarding	of 1998), Duty of Care, the
	alignment with local biodiversity off	set plan.	landowner is responsible for the
	 Site establishment may onli 	•	clearance of any potential
	transformation/disturbance (easter	<i>,</i>	pollution or harm to the
	Demarcate/fence off the construct	· ·	environment. This includes alien
	Contain disturbance to the demark		invasive species within the site.
	 already disturbed/transformed 	areas should be used for the	On-going alien invasive control
	,		5 5
		plant, construction material, offices, etc.	measures should be
	during the construction phase.		implemented.
			There should be environmental
	Stormwater Control		guidance, and planning
	 Adopt an appropriately design stor 	mwater management plan.	provided prior to removal alien
			invasive species.
	Vegetation		 Environmental awareness
	 If the entire site is to be develope 	ed, consideration should be given to the	training should be provided for
	salvage of plant material (e.g. b	oulbs, succulents and topsoil containing	the labour, this should include,
	fynbos seeds), to be reintroduced	elsewhere in the area where it can aid	but not be limited to: identifying
	rehabilitation and conservation effo		the indigenous species, specific
		made prior to the commencement of	alien invasives, planning safe
		r the salvaging of good quality plant	removal, storage and disposal of
	material, bulbs, etc.	va aging or good quality plant	alien invasives, etc.
		peNature representative or the municipal	ullen invasives, etc.
	The ECO in Collaboration with a Ca	pervarure representative of the monicipal	

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- environmental management department, will ensure that the salvaged plant material is relocated to an appropriate site.
- The ECO and CapeNature representative/municipal environmental management representative, may utilize the labour for removal of plant material. If the labour is to be utilized, ensure inductions are undertaken and labour is briefed on the following:
- Identifying the material needing to be salvaged.
- Identifying SCC plant material.
- The correct removal methods, packaging and transportation of salvaged, good quality vegetation (including SCC's).
- Utilize disturbed/transformed areas for the accommodation of construction plant, construction material, offices, etc. during the construction phase.
- No disturbance or spoiling may occur outside this demarcated area.
- Control the establishment of alien invasive species on and around the site, as a long-term management requirement, until the site is transformed.
- Fires should be prohibited on site.
- Clear all waste within the working area, while clearance takes place, and dispose of it appropriately.

Alien Invasive Species

- Alien invasive species should be disposed of appropriately.
- Store in appropriate waste bins/receptacles, designated for garden refuge, and do not allow dispersal.
- Remove off site as soon as possible and dispose of material at a registered waste disposal site that accepts garden refuge.

Faunal Management

- Time and allowances should be made prior to the commencement of construction activity to allow for search and rescue of faunal species.
- An ECO must be present for preparation and conduct of search and rescue activities.
- The ECO is to guide and educate the labour, with the assistance of an appointed Ecological Specialist (temporary), on:

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 ECO must educate labour on management throughout construct No person/s may harm, kill, capture Where possible, avoid interactions harm, if such fauna is identified o protection and removal services. Maintain good house-keeping so and material. Use shade cloth over existing fence line (both) 	future conduct in terms of faunal tion phase, including but not limited to: or keep any fauna. particularly with fauna that can inflict in site contact local SPCA other animal that fauna cannot hide amongst debris	
nom wandshing of no she.	•	As the site is exposed, alien invasive species may persist.
 Alien invasive encroachment over a long-term basis, along disturbed portions or along the edge of the development. 	Alien invasive encroachment over a long-term basis, along disturbed portions or along the edge of the development.	
Low (-)	Low (-)	Low - Medium
Earthworks will result in clearance of veget	tation, resulting in loose and exposed soils	
	 ECO must educate labour on management throughout constructs. No person/s may harm, kill, capture. Where possible, avoid interactions harm, if such fauna is identified of protection and removal services. Maintain good house-keeping so and material. Use shade cloth over existing fence line (beform wandering onto site. Alien invasive encroachment over a long-term basis, along disturbed portions or along the edge of the development. Low (-) Earthworks, Land Clearance and Sedimentation is constituted in clearance of veget the site, erosion and sedimentation is constituted.	 Maintain good house-keeping so that fauna cannot hide amongst debris and material. Use shade cloth over existing fence line (boundary of working area), to stop animals from wandering onto site. Alien invasive encroachment over a long-term basis, along disturbed portions or along the edge of the development. Alien invasive encroachment over a long-term basis, along disturbed portions or along the edge of the development.

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	No-Go Alternative: No change to status quo).	
Nature of Impact:	Negative	Negative	No change to status quo.
Extent, duration and magnitude of impact:	Local and short-term	Local and short-term	
Consequence of impact or risk:	Exposed soils due to clearance of vegetation.	Exposed soils due to clearance of vegetation.	
Probability of occurrence:	High	• High	
Degree to which the impact may cause irreplaceable loss of resources:	Low	• Low	
Degree to which the impact can be reversed:	Low	• Low	
Indirect impacts:	Heavy rainfall can lead to ponding.	Heavy rainfall can lead to ponding.	
Cumulative impact prior to mitigation:		•	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-	Medium	• Medium	
High, High, or		Page 70 of 125	

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Degree to which the impact can be managed: Degree to which the impact can be managed: Degree to which the impact can be mitigated: Proposed mitigation: General: Adopt an appropriately designed stormwater management plan. Plan works to avoid periods of heavy rainfall, where possible. Stockpiles: Ensure stockpiles are bunded, especially if positioned along fence line. Excess soil that is not planned for construction use, should be removed from the site, as soon as possible. Stockpiles of any type of materials, should not exceed 2m's in height. Fencing: Ensure that all open excavations are demarcated during construction, so as to prohibit accidents, such as wandering fauna. Utilize netting or shade cloth. Ensure this is maintained for duration of open excavation. There is an existing fence line around the site, this should be maintained, and additional shade cloth be utilized over fencing so as to stop wandering	Very-High)		
Degree to which the impact can be avoided: Medium - high Medium			
Degree to which the impact can be avoided: Medium - high Medium	Degree to which	Low	• Low
Degree to which the impact can be managed: Proposed mittigation: General: Adopt an appropriately designed stormwater management plan. Plan works to avoid periods of heavy rainfall, where possible. Stockpiles: Ensure stockpiles are bunded, especially if positioned along fence line. Excess soil that is not planned for construction use, should be removed from the site, as soon as possible. Stockpiles of any type of materials, should not exceed 2m's in height. Fencing: Ensure that all open excavations are demarcated during construction, so as to prohibit accidents, such as wandering fauna. Utilize netting or shade cloth. Ensure this is maintained for duration of open excavation. There is an existing fence line around the site, this should be maintained, and additional shade cloth be utilized over fencing so as to stop wandering	the impact can be avoided:	LOW	LOW
Proposed mitigation: General: Adopt an appropriately designed stormwater management plan. Plan works to avoid periods of heavy rainfall, where possible. Stockpiles: Ensure stockpiles are bunded, especially if positioned along fence line. Excess soil that is not planned for construction use, should be removed from the site, as soon as possible. Stockpiles of any type of materials, should not exceed 2m's in height. Fencing: Ensure that all open excavations are demarcated during construction, so as to prohibit accidents, such as wandering fauna. Utilize netting or shade cloth. Ensure this is maintained for duration of open excavation. There is an existing fence line around the site, this should be maintained, and additional shade cloth be utilized over fencing so as to stop wandering	Degree to which the impact can be managed:	Medium - high	Medium - high
 Adopt an appropriately designed stormwater management plan. Plan works to avoid periods of heavy rainfall, where possible. Stockpiles: Ensure stockpiles are bunded, especially if positioned along fence line. Excess soil that is not planned for construction use, should be removed from the site, as soon as possible. Stockpiles of any type of materials, should not exceed 2m's in height. Fencing: Ensure that all open excavations are demarcated during construction, so as to prohibit accidents, such as wandering fauna. Utilize netting or shade cloth. Ensure this is maintained for duration of open excavation. There is an existing fence line around the site, this should be maintained, and additional shade cloth be utilized over fencing so as to stop wandering 	Degree to which the impact can be mitigated:	Medium - High	Medium - High
fauna from entering, as well as dispersal of material into adjacent site. Soil Contamination Ensure that lubricants are stored appropriately, in a designated, bunded	Proposed mitigation:	 Adopt an appropriately designed so Plan works to avoid periods of heavens Stockpiles: Ensure stockpiles are bunded, espensive, as soon as possible. Stockpiles of any type of materials, Fencing: Ensure that all open excavations are to prohibit accidents, such as wanded to prohibit accidents, such as wanded to prohibit accidents, such as wanded to prohibit accidents. Utilize netting or shade cloth. Ensure this is maintained for durational shade cloth be utilized a fauna from entering, as well as disposition. Soil Contamination 	recially if positioned along fence line. construction use, should be removed from should not exceed 2m's in height. de demarcated during construction, so as dering fauna. In of open excavation. In of open excavation. In of the site, this should be maintained, and over fencing so as to stop wandering the site.

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Residual impacts:	 area. No maintenance should be undertaken on site. Ensure vehicles and machinery are in good order, and where necessary have and use drip trays. Emptying of lubricants from containers should be 	
кезіціці і присіз.		
Cumulative impacts post mitigation:		
Significance rating of impact post mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Low	
Potential impact and risk:	Soil Contamination and Storage The establishment of the site camp will entail the establishment of temporary toilet recommended that the existing infrastructure be utilized as a site camp. Positioning should be located within this structure. As spillage from movement or inappropriate contaminate natural ground if positioned here. Spillage or fuel, oil or other hazardous material can lead to soil contamination. machinery could leak hazardous material into soil, resulting in soil contamination. Disp contaminated soil into adjacent sites.	nandling or cleaning of the toilets, could lappropriately maintained vehicles or

Excessive construction waste will be created during construction activities, from clearance of vegetation to construction waste (rubble, cement bags, etc.), and daily waste from labour and personnel on site (food wrappers, packets, cigarette stubs, etc.).

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	No-Go Alternative: None	
Nature of Impact:	Negative	Negative
Extent, duration and magnitude of impact:	Local and short-long term	Local and short-long term
Consequence of impact or risk:	 Exposed soils due to clearance of vegetation. Oil/fuel spills contaminating soils. 	Exposed soils due to clearance of vegetation. Oil/fuel spills contaminating soils.
Probability of occurrence:	Medium	Medium
Degree to which the impact may cause irreplaceable loss of resources:	Low	Low
Degree to which the impact can be reversed:	Low	Low
Indirect impacts:	Dispersal of contaminated soil into adjacent properties.	Dispersal of contaminated soil into adjacent properties.
Cumulative impact prior to mitigation:		
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-	Medium	Medium

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High, High, or Very-High)		
Degree to which the impact can be avoided:	Low	Low
Degree to which the impact can be managed:	Medium - high	Medium - high
Degree to which the impact can be mitigated:	Medium - High	Medium - High
Proposed mitigation:	 infrastructure. Disturbed areas should be utilized to infrastructure, the ECO should be confirmed in the extraction of t	e on site, to store environmental vals, EMPr, audit reports, an incident aste slips. propriately registered company. The record keeping purposes, and are filed

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Storage areas:

- Designate storage areas within existing infrastructure for hazardous waste.
- Designate storage areas for other materials.
- Ensure hazardous waste is indicated with appropriate signage, is bunded and never emptied on permeable surfaces.

Waste:

- Designate an area for waste storage.
- Provide appropriate receptacles.
- Ensure bins are not allowed to overflow.
- Ensure that waste is separated, and bins are labelled appropriately.
- Ensure waste is disposed of at appropriately registered disposal sites, and waste slips are filed appropriately.
- Smoking and fires should not be permitted on site, particularly as the site and surrounding area contains good quality vegetation.

Soil Contamination

- Ensure that lubricants are stored appropriately, in a designated, bunded area.
- No maintenance should be undertaken on site.
- Ensure vehicles and machinery are in good order, and where necessary have and use drip trays.
- Emptying of lubricants from containers should be done on impermeable surfaces.
- Ensure spill kits are available on site.

Contaminated soil should be removed, stored appropriately, and disposed of at a registered site. A disposal slip should be obtained. Uncontaminated soil should be infilled, if the site is not planned to be transformed, in the near future.

Residual impacts:

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Cumulative impacts post			
mitigation:			
Significance rating	Low		
of impact post	LOW		
mitigation (e.g. Low,			
Medium, Medium-			
High, High, or Very-High)			
very-riigrij			
Potential impact and risk:	Social Impact: Sense of Place (Noise & Du	st)	
	existing airport that is probably already co		ce, as the site is located adjacent to an ting area, as the proposed site is within the ruction phase and will be temporary.
	vegetation, exposed soils and establishm nuisances (visual impairment and dust dis		
Nature of Impact:	Negative	Negative	Not applicable, as the site will remain as
Extent, duration and magnitude of impact:	Local, short-term and medium	Local, short-term and medium	it is. No development will occur, therefore no soil disturbance.
Consequence of impact or risk:	General construction nuisances i.e. dust, noise, odour, etc. will impact on the sense of place, although mainly temporary in nature.	General construction nuisances i.e. dust, noise, odour, etc. will impact on the sense of place, although mainly temporary in nature.	
Probability of occurrence:	Probable	Probable	
Degree to which the impact may cause irreplaceable loss of resources:	Low	Low	
Degree to which	Partly	Partly	

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the impact can be reversed:		
Indirect impacts:	None	None
Cumulative impact prior to mitigation:	Medium	Medium
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Medium	Medium
Degree to which the impact can be avoided:	Medium	Medium
Degree to which the impact can be managed:	Medium	Medium
Degree to which the impact can be mitigated:	Medium	Medium
Proposed mitigation:	strong winds, where possible. Cleared areas should be produced and not left exposed for extensions. Stockpiles of topsoil, spoil modust must be protected from tarpaulin or other appropriate covered with tarpaulin as this. The location of stockpiles redirection, and should be sitting impact to surrounding road-up.	aterial and other material that may generate om wind erosion (e.g. covered with netting, te measures. (Note that topsoil should not be may kill the seedbank). must take into account, the prevailing wind ruated so as to have the least possible dust sers and other land-users. ced in all areas, including public roads and evels of dust pollution.

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- dry periods by the regular application of non-potable water or a biodegradable soil stabilisation agent. Water used for this purpose must be used in quantities that will not result in the generation of excessive run off.
- Dust suppression measures such as the wetting down of sand heaps as well
 as exposed areas around the site must be implemented especially on windy
 days.
- The use of straw worked into the sandy areas may also help and the ECO must advise when this is necessary.
- If dust appears to be a continuous problem the option of using shade cloth to cover open areas may be necessary or the erecting of shade netting above the fenced off area may need to be explored.
- Work on site must be well-planned and should proceed efficiently so as to minimise the handling of dust generating material.
- Material loads should be properly covered during transportation.
- Dust levels specified in the National Dust Control Regulations (GN 827 of November 2013) may not be exceeded. i.e. dust fall in residential areas may not exceed 600mg/m2/day, measured using reference method ASTM D1739:
- A Complaints Register must be available at the site office for inspection by the ECO of dust complaints that may have been received.
- The appointed Environmental Control Officer (ECO) must undertake a site inspection
 - once per week for the first two months, then
 - twice per month for the next three months, then
 - once per month. during construction phase.
- A short monthly ECO monitoring audit report, should be produced, auditing
 on the compliance of the property developer with the conditions of the
 Environmental Authorisation and the approved EMP.

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	Noise Mitigation:		
	construction working hours (7: has been identified around the - Where works may occur avoided Lighting should be sufficied machinery is used, and to works are underway after - Traffic flow control should Work on site must be well-plan limit the duration of the disturbed Vehicles and equipment must be necessary, machinery and extended period of time. Workers should be educated that have the potential to extended period of time. Noise levels must comply with SANS codes and should be in necessary and appropriate. Affected parties must be inform	ag activities should be restricted to normal (30 – 17:30), especially as residential housing esite, as far as possible. For after hours, excessive noise should be ent to undertake works, particularly of heavy of indicate to traffic on Nagtegaal Road, that normal working hours. The be implemented, with appropriate signage. The and and should proceed efficiently so as to	
Residual impacts:	None	None	
Cumulative impacts post mitigation:	Low	Low	
Significance rating of impact post mitigation (e.g. Low, Medium, Medium- High, High, or	Low		

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Very-High)			
Potential impact and risk:	Social Impact: Visual The site will undergo transformation from a especially as the site does contain nature occur due to highly reflective surfaces, the Preferred Alternative 1: Will accommodate	al vegetation. Based on the materials utilize the transfer of the neighbor of	ed during construction, visual issues may ghbouring aircrafts.
Nature of Impact:	Negative	Negative	Not applicable, as the site will remain as
Extent, duration and magnitude of impact:	Local and temporary.	Local and temporary.	it is. No development will occur.
Consequence of impact or risk:	 Change of visual aesthetics, due to construction disturbance. Reflective surfaces may pose issues for aircrafts. 	 Change of visual aesthetics, due to construction disturbance. Reflective surfaces may pose issues for aircrafts. 	
Probability of occurrence:	Definite	Definite	
Degree to which the impact may cause irreplaceable loss of resources:	No loss of resource.	No loss of resource.	
Degree to which the impact can be reversed:	Irreversible	Irreversible	
Indirect impacts:	None	None	
Cumulative impact prior to mitigation:	None	None	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Medium	Medium	
Degree to which the impact can	Unavoidable	Unavoidable	

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be avoided:		
Degree to which the impact can be managed:	Low - Medium	Low - Medium
Degree to which the impact can be mitigated:	Can be partly mitigated	Can be partly mitigated
Proposed mitigation:	 Special attention should be given to the screening of highly reflective material, that may pose issues to the airport adjacent to site. Utilize shade cloth, or other suitable material, along the fence perimeter of the site camp and construction site. Work on site must be well-planned and well-managed so that work proceeds quickly and efficiently, thus minimizing the disturbance time. Use of lighting (if required) should take into account surrounding residents and land users and should present little or no nuisance. Downward facing, spill-off type lighting is recommended. Integration of high infiltration surfaces: Where possible, grass blocks should be utilized as much as possible. 	 Special attention should be given to the screening of highly reflective material, that may pose issues to the airport adjacent to site. Utilize shade cloth, or other suitable material, along the fence perimeter of the site camp and construction site. Work on site must be well-planned and well-managed so that work proceeds quickly and efficiently, thus minimizing the disturbance time. Use of lighting (if required) should take into account surrounding residents and land users and should present little or no nuisance. Downward facing, spill-off type lighting is recommended.

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Residual impacts:	None.	None.	
Cumulative impacts post mitigation:	None	None	
Significance rating of impact post mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Low	Low	
Potential impact and risk:	Creation of temporary job opportunities for community, particularly those of previous should be sourced from local businesses. No-Go Alternative: No development will be clearance of alien invasive vegetation, who	r skilled and unskilled labour, with potential sly disadvantaged backgrounds, and for se undertaken, therefore minimal, and ver	for skills transfer, for members of the local females. Goods, materials and services, y temporary labour will be utilized for the
Nature of Impact:	Positive	Positive	Negative
Extent, duration and magnitude of impact:	Local and medium - term.	Local and medium - term.	Local and temporary
Consequence of impact or risk:	 Labourers (unskilled), will be able to earn a living. Labourers (unskilled) can improve/build their skills. Improved quality of life for these labourers, by establishing an income. 	 Labourers (unskilled), will be able to earn a living. Labourers (unskilled) can improve/build their skills. Improved quality of life for these labourers, by establishing an income. 	Positive: • Although few and very temporary (one in a while) - Labourers (unskilled), will be able to earn a living. - Labourers (unskilled) can improve/build their skills. - Improved quality of life for these labourers, by establishing an income.
Probability of occurrence:	Definite	Definite	Probable
Degree to which the impact may cause	No loss of a resources	No loss of a resources	High

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irreplaceable loss			
of resources: Degree to which the impact can be reversed:	Irreversible	Irreversible	Irreversible
Indirect impacts:	 Income generated by labourer will benefit their families/households, by improving the quality of their lives. There may be opportunities to transfer skills from more experienced workers to less experienced workers. Local community/shops will benefit, as labour purchases goods through income generated, from local suppliers. 	 Income generated by labourer will benefit their families/households, by improving the quality of their lives. There may be opportunities to transfer skills from more experienced workers to less experienced workers. Local community/shops will benefit, as labour purchases goods through income generated, from local suppliers. 	Income generated by labour will benefit their families/households, by improving the quality of their lives. The skills the labour develops on site, may assist them in undertaking other work. Local community/shops will benefit, as labour purchases goods through income generated, from local suppliers.
Cumulative impact prior to mitigation:	Medium (+)	Medium (+)	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	High (+)	High (+)	Low (+)
Degree to which the impact can be avoided:	Unavoidable	Unavoidable	Unavoidable
Degree to which the impact can be managed:	Not applicable	Not applicable	Not applicable
Degree to which the impact can be mitigated:	No mitigation proposed, as it is a positive impact.	No mitigation proposed, as it is a positive impact.	No mitigation proposed, as it is a positive impact.
Proposed mitigation:	 Positive, therefore no mitigation nec It should be noted that this impact v 		Positive, therefore no mitigation necessary.

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Residual impacts:		advantaged background, and address ne Western Cape, and country of South ourers, although temporary. Labour that previously lacked construction skills and experience, who were hired for this project, will now be able to utilize this for future developments.	 Temporary labour will be appointed. Labour that previously lacked construction skills and experience, who were hired for this project, will now be able to utilize this for future developments.
Cumulative impacts post mitigation:		·	·
Significance rating of impact post mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	High (+)		Low (+)
Potential impact	Social Impact: Traffic & Access		
and risk:	Access to the proposed site is located alo utilized during construction.	ng the eastern boundary, along Nagtegao	al Street. This will be the only access point
	Construction vehicles can slow traffic, as movement, as this road is utilized for accematerials can have an impact on the road No-Go Alternative: Status quo will persist.	ess to the neighbouring properties. Althou	gh limited. Overloaded vehicles carrying
Nature of Impact:	Negative	Negative	Not applicable, as no development will
Extent, duration	Local, short-term and minor – medium scale	Local, short-term and minor – medium scale	take place, the status quo will persist.
and magnitude of impact:	2CAIG	30010	

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Probability of	due to the movement of construction vehicles accessing the site. Construction vehicle movement, with loads, may cause damage to the existing road. High	due to the movement of construction vehicles accessing the site. • Construction vehicle movement, with loads, may cause damage to the existing road. High
Degree to which the impact may cause irreplaceable loss of resources:	No loss of resource.	No loss of resource.
Degree to which the impact can be reversed:	Barely	Barely
Indirect impacts:	 Accidents may occur due to impatient or negligent drivers. Congestion and delays. 	 Accidents may occur due to impatient or negligent drivers. Congestion and delays.
Cumulative impact prior to mitigation:	 Potential damage to the roads that can damage visitor's vehicles, resulting in potential complaints and financial claims. Possible complaints from public traversing this road, daily. 	Potential damage to the roads that can damage visitor's vehicles, resulting in potential complaints and financial claims. Possible complaints from public traversing this road, daily.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Medium	Medium
Degree to which the impact can be avoided:	Low	Low
Degree to which the impact can be managed:	Medium	Medium
Degree to which the impact can	Can be mitigated	Can be mitigated

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be mitigated:	
Proposed	General:
mitigation:	All construction vehicles need to adhere to traffic laws. The speed of
	construction vehicles and other heavy vehicles must be strictly controlled to
	avoid dangerous conditions for other road users. As far as possible care
	should be taken to ensure that the local traffic flow pattern is not
	significantly disrupted.
	All vehicle operators need to be educated in terms of "best-practice"
	operations to minimise unnecessary traffic congestion or dangers.
	Construction vehicles should therefore, not unnecessarily obstruct the
	access point or traffic lanes used to access the site. Construction vehicles
	also need to consider the load carrying capacity of road surfaces and
	adhere to all other prescriptive regulations regarding the use of public roads
	by construction vehicles.
	Adequate signage, that is both informative and cautionary to passing traffic
	(motorists and pedestrians), warning them of the construction activities must
	be suitably located in the area where the construction is occurring and must
	be easily visible by all road users. Signage needs to be clearly visible and
	needs to include, among others, the following:
	- Identifying working area as a construction site;
	 Cautioning against relevant construction activities;
	- Prohibiting access to construction site;
	 Clearly specifying possible detour routes and/or delay periods;
	- Possible indications of time frames attached to the construction
	activities, and;
	- Details of responsible contractors and engineers are working on the site.
	If needed, appropriate traffic management measures and/ or points men
	(traffic marshals) should be utilized to assist vehicles entering/ exiting the site,
	particularly where vehicles must cross the path of oncoming traffic.
	Speed of construction vehicles and other heavy vehicles must be strictly
	controlled to avoid dangerous conditions for other road users.
	The Contractor must ensure that any large or abnormal loads (including)
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	appropriately, and that approp	riate safety precautions are taken.	
	Truck drivers, transporting const	truction material or vehicles must be briefed	I
	on the appropriate route, ar	nd speed limits etc. The driver should be	
	experienced at transporting large	•	
		ehicle movement is identified and reinstated	4
	as soon as possible.	eriicie movemeni is ideniined dha feirisidiee	'
Residual impacts:	'	I Nicos	4
<u> </u>	None.	None.	<u> </u>
Cumulative impacts post mitigation:	Negligible.	Negligible.	
Significance rating of impact post mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Low.		
Potential impact and risk:	Social Impact: Vandalism & Security Change of site from undeveloped to de with nefarious intentions.	eveloped, attracts loiterers. Materials position	ed on site overnight may attract peopl
Nature of Impact:	Negative	Negative	
Extent, duration and magnitude of	Negative Site only and long-term	Negative Site only and long-term	
Extent, duration and magnitude of impact: Consequence of			
Extent, duration and magnitude of impact: Consequence of impact or risk: Probability of occurrence:	Site only and long-term Possible criminal activity. Low	Site only and long-term Possible criminal activity. Low	
Extent, duration and magnitude of impact: Consequence of impact or risk: Probability of occurrence: Degree to which the impact may cause irreplaceable loss	Site only and long-term Possible criminal activity.	Site only and long-term Possible criminal activity.	
Extent, duration and magnitude of impact: Consequence of impact or risk: Probability of	Site only and long-term Possible criminal activity. Low	Site only and long-term Possible criminal activity. Low	

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	material and damage due to	
	theft.	
Cumulative impact prior to mitigation:	Delay in project schedule.	Delay in project schedule.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Medium (-)	Medium (-)
Degree to which the impact can be avoided:	Medium	Medium
Degree to which the impact can be managed:	Medium	Medium
Degree to which the impact can be mitigated:	Medium	Medium
Proposed mitigation:	reported immediately. • The security should have the con-	
Residual impacts:	None	None
Cumulative impacts post mitigation:	Low	Low
Significance rating of impact post mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Low	

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	PREFERRED ALTERNATIVE 1 LAYOUT	ALTERNATIVE 2 LAYOUT	NO-GO ALTERNATIVE
		OPERATIONAL PHASE	
Potential impact and risk:	Socio-Economic Impacts: Job Creation & L	ocal Revenue	
	The storage facility will provide employment indicate that there would be few, however	•	•
	No-go alternative: The clearing of alien in provide an opportunity for transfer and gro		· · · · · · · · · · · · · · · · · · ·
Nature of Impact:	Positive	Positive	Positive
Extent, duration and magnitude of impact:	Local and medium-term	Local and medium-term	Local and temporary
Consequence of impact or risk:	 Permanent employment available to members of the local community. Employees have the opportunity to earn wages that will contribute to their quality of life. 	 Permanent employment available to members of the local community. Employees have the opportunity to earn wages that will contribute to their quality of life. 	 Temporary employment available to few members of the local community. Labour has the opportunity to earn wages that will contribute to their quality of life.
Probability of occurrence:	Definite	Definite	Probable
Degree to which the impact may cause irreplaceable loss of resources:	Low	Low	Low
Degree to which the impact can be reversed:	Reversible	Reversible	Irreversible
Indirect impacts:			
Cumulative impact prior to mitigation:	Positive impact, no mitigation required.May result more employment	 Positive impact, no mitigation required. 	 Positive impact, no mitigation required.
	opportunities, given the maintenance requirements,	General • Unskilled labourers can be used.	General • Unskilled labourers can be used.

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Significance rating of impact prior to	related to the solar panels and the water tanks, if the caretaker is unable to provide efficient maintenance. General Unskilled labourers can be used. Labour will earn a living to improve the lives, health and safety of their family members and households. Employees are able to afford to educate their children. Employees are able to provide food and shelter for themselves and their families. Employment created with the development will have a positive influence on members in the community previously unemployed. Employees will source goods from the local community, contributing to the local economy. Maintenance of the site leads to a healthy environment and will be appreciated by the community, as this is a community facility, where people lay their loved ones to rest.	 Labour will earn a living to improve the lives, health and safety of their family members and households. Employees are able to afford to educate their children. Employees are able to provide food and shelter for themselves and their families. Employment created with the development will have a positive influence on members in the community previously unemployed. Employees will source goods from the local community, contributing to the local economy. Maintenance of the site leads to a healthy environment and will be appreciated by the community, as this is a community facility, where people lay their loved ones to rest. 	 Labour can earn a living to improve the lives, health and safety of their family members and households. Labour will have an opportunity to help their families. Employment created with the development will have a positive influence on members in the community previously unemployed. Labour can source goods from the local community, contributing to the local economy.
of Impact prior to mitigation (e.g. Low, Medium, Medium- High, High, or			

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Very-High)			
Degree to which the impact can be avoided: Degree to which the impact can be managed: Degree to which the impact can be mitigated: Proposed mitigation: Residual impacts: Cumulative impacts post mitigation:	Not applicable, it remains a positive impac community and the local economy.		Not applicable, it remains a positive impact, that will benefit the surrounding community and the local economy.
Significance rating of impact post mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Medium - High (+)	Medium	Low (+)
Potential impact and risk:	For private use: as more people choose to close to areas such as Mossel Bay, and Aal For use by the airport: the proposed state accommodate various unit sizes that can be	o downscale within the Garden Route, a wyndal. orage facility will be conveniently locate	
Nature of Impact: Extent, duration and magnitude of impact:	Positive Positive	Positive Positive	No impact of a positive or negative nature.
Consequence of impact or risk:	 Meeting the demand for private storage. Utilizing space in an appropriate manner. 	 Meeting the demand for private storage. Utilizing space in an appropriate manner. 	

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Able to cater to more people, as higher number of storage units will be accommodated. Probability of occurrence: Degree to which the impact and be remarked in the product of the impact prior to miligation: Unwelling to the which the impact and the product of				
be accommodated. Probability of Coccurrence: Degree to which the impact amount of the impact prior to mitigation: Significance rating of impact prior to mitigation (e.g., Low. Medium. Medium-High. High. or Very-High) Degree to which the impact can be amounted to the impact amount of the impact amount of the impact amount of the impact amounted the impact				
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Degree to which the impact and process. Degree to which the impact consecuse implaceable loss of resources. Degree to which the impact consecused: Indirect impacts: Cumulative impact prior to mitigation: Significance rating of impact prior to mitigation: N/A - This is a positive impact proposed to be enhanced. N/A - This is a positive impact proposed to be enhanced. Positive. No mitigation required. The proposed development represents an enhancement measure on its own.		be accommodated.		
Degree to which the impact and process. Degree to which the impact consecuse implaceable loss of resources. Degree to which the impact consecused: Indirect impacts: Cumulative impact prior to mitigation: Significance rating of impact prior to mitigation: N/A - This is a positive impact proposed to be enhanced. N/A - This is a positive impact proposed to be enhanced. Positive. No mitigation required. The proposed development represents an enhancement measure on its own.	Probability of	Definite	Definite	
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le reversed: Indirect impacts: Cumulative Impact prior to mitigation: Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium- High, High, or Very-High) Degree to which the impact can be managed: Degree to which the impact can be mitigation: Proposed mitigation: Positive. Positive. No mitigation required. The proposed development represents an enhancement measure on its own. Residual impacts: Cumulative impacts post		Ineversible	Intereignie	
Indirect impacts: Cumulative impact prior to mitigation: Significance rating of impact prior to mitigation (e.g. Low, Medium - High (+) Degree to which the impact can be avoided: Degree to which the impact can be managed: Degree to which the impact can be mitigated: Proposed mitigation: Proposed mitigation: Residual impacts: Cumulative impacts Own. Residual impacts: Cumulative impact impact proposed to be enhanced.				
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Residual impacts: Cumulative impacts post			ents an enhancement measure on its	
Residual impacts: Cumulative		1		
Cumulative impacts post	Residual impacts:	O VVIII.		
impacts post				
	mitigation:			

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Significance rating of impact post mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	High (+)	Medium - High (+)	
Potential impact and risk:	Social Impact: Visual & Noise		
	Given the use of the site as for storage purp		ng to the municipal spatial development operties for storage purposes. ntered.
Nature of Impact:	Negative	Negative	In terms of Section 28 of the National
Extent, duration and magnitude of impact:	Local and permanent.	Local and permanent.	Environmental Management Act, 1998 (Act 107 of 1998), Duty of Care, the site must be maintained by the landowner,
Consequence of impact or risk:	 Change in sense of place Potential for glare impacts on aircrafts, due to solar panels. 	Change in sense of place	and all possible sources of pollution of harm, should be removed including alien invasive species.
Probability of occurrence:	Definite	Definite	
Degree to which the impact may cause irreplaceable loss of resources:	No irreplaceable loss of resources.	No irreplaceable loss of resources.	
Degree to which the impact can be reversed:	Irreversible	Irreversible	
Indirect impacts:	Change in sense of place.	Change in sense of place.	
Cumulative impact prior to mitigation:	Low.The current character of the site	Low.The current character of the site	

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	will change.	will change.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Low	
Degree to which the impact can be avoided:	Unavoidable	Unavoidable
Degree to which the impact can be managed:	Unmanageable.	Unmanageable.
Degree to which the impact can be mitigated:	Low	Low
Proposed mitigation:	Integration of solar energy: - Ensure minimal glare risk, particularly to the adjacent airport. - Utilize glass panels designed to maximise absorption and minimise reflection to increase electricity production efficiency. - Solar PV panels should be constructed of dark, lightabsorbing materials and covered with an anti-reflective coating.	No mitigation is available.
Residual impacts: Cumulative impacts post mitigation:	None	None
Significance rating of impact post mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Low	

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Potential impact and risk:	Traffic Impact: Traffic will have greatly reduced during op in traffic from the airport, should they utilize		ction. Although there may be an increase
Nature of Impact:	Negative	Negative	Not applicable, as no development will
Extent, duration and magnitude of impact:	Local and long-term	Local and long-term	take place.
Consequence of impact or risk:	Although traffic will reduce from the construction phase, there may be more traffic between the airport and storage facility, as compared to pre-construction.	Although traffic will reduce from the construction phase, there may be more traffic between the airport and storage facility, as compared to preconstruction.	
Probability of occurrence:	Possible	Possible	
Degree to which the impact may cause irreplaceable loss of resources:	Low	Low	
Degree to which the impact can be reversed:	Irreversible	Irreversible	
Indirect impacts:	Disgruntled landowners/occupiers.	Disgruntled landowners/occupiers.	
Cumulative impact prior to mitigation:			
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Medium (+)	Medium (+)	
Degree to which the impact can be avoided:	Low	Low	
Degree to which	Low	Low	

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the impact can be managed:			
Degree to which the impact can be mitigated:	Low	Low	
Proposed mitigation:	Ensure that there is adequate signage to indicate speed limits, and to control traffic flow.	Ensure that there is adequate signage to indicate speed limits, and to control traffic flow.	
Residual impacts:	None	None	
Cumulative impacts post mitigation:	None	None	
Significance rating of impact post mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Low		
Potential impact and risk:	Stormwater Management		
	Stormwater management has been flagge landscape, and poor drainage predicted	ed as an important aspect to be addressed, b for the site.	y the Engineers, due to the flat
	Preferred Layout 1: Will accommodate for	the inclusion of grass-blocks, indicating allowing	ng for high infiltration rates.
	No-Go-Alternative: No change to the surfc	ace.	
Nature of Impact:	Negative	Negative	No development.
Extent, duration and magnitude of impact:	Local and long-term	Local and long-term	
Consequence of impact or risk:	Alteration to the surface, reducing natural infiltration rates.	Alteration to the surface, reducing natural infiltration rates.	
	Potential for ponding.	Increase runoff rates.	

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Degree to which the impact may cause irreplaceable loss of resources:	Low	High
Degree to which the impact can be reversed:	Low	Low
Indirect impacts:		
Cumulative impact prior to mitigation:		 Impact on adjacent natural surfaces, on neighbouring property edge.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Medium	High
Degree to which the impact can be avoided:	Medium	Low
Degree to which the impact can be managed:	Medium	Low
Degree to which the impact can be mitigated:	Medium	Low
Proposed mitigation:	 Incorporate grass-blocks throughout, where possible. Ensue water tanks are integrated into final design, to attenuate rainfall runoff. Ensure all stormwater infrastructure is maintained. Ensure a stormwater management plan is adopted in the final design. 	 Ensure all stormwater infrastructure is maintained. Ensure a stormwater management plan is adopted in the final design.
Residual impacts:		
Cumulative impacts post		

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mitigation:		
Significance rating	Low	Medium - High
of impact post		5
mitigation		
(e.g. Low,		
Medium, Medium-		
High, High, or		
Very-High)		

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SECTION I: FINDINGS, IMPACT MANAGEMENT AND MITIGATION MEASURES

Provide a summary of the findings and impact management measures identified by all Specialist and an indication of how these findings and recommendations have influenced the proposed development.

AQUATIC COMPLIANCE STATEMENT:

Summary of Findings:

It was determined that there are no aquatic features on site and that none of the watercourses beyond the study area would be impacted by the proposed project, therefore the site has a very Low aquatic sensitivity status and the proposed development will not impact aquatic biodiversity.

Summary of Impacts:

None

Summary of Management Measures:

None

Recommendations and Influence on Proposed Development:

There have been no recommendations made by the Aquatic Specialist, as there was no aquatic habitat or features found on site. Therefore, this supports the approval of the proposed development.

AGRICULTURAL COMPLIANCE STATEMENT:

Summary of Findings:

According to the Agricultural Compliance Statement, it was determined that the entire site is of medium sensitivity for agriculture, because of its land capability. The site is not used for productive agriculture. The fact that the area has already been subdivided into small parcels of land and is within an area of non-agricultural development, is a significant limitation to its future potential for agricultural production.

The conclusion of the assessment was that the proposed development will not have an unacceptable negative impact on the agricultural production capability of the site. This is substantiated by the fact that the proposed development will occupy land that is not currently utilised for any agricultural production, and also has no future production potential. The limitations on future potential are due to the very small size of the land parcel, which makes agriculture non economically viable, and its location surrounded by small parcels of land with non-agricultural land use

Summary of Impacts:

• The agricultural impact of the proposed development will be to permanently exclude agriculture from the land parcel.

Summary of Management Measures:

None is recommended.

Recommendations and Influence on Proposed Development:

The proposed development was found to be acceptable, and from an agricultural impact point of view, it was recommended that the development be approved. Therefore, this supports the approval of the proposed development.

AVIFAUNAL COMPLIANCE STATEMENT:

Summary of Findings:

It was determined that the proposed development will not have any detrimental impact on any threatened and Near Threated birds or their breeding and feeding habitats. As none of these birds are secretive and when moving from one foraging or breeding area to another, are not restricted to

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any specific habitats.

However, development in the ESA may affect the movement of other forms of terrestrial biodiversity, and the specialist had advised that this needs to be considered in the complete Environmental Impact Assessment for this proposed development.

The location of this proposed development in a sub-quaternary catchment of the Blinde River FEPA (Nel et al. 2011), will not impact on any threatened or Near Threated birds or their habitats. As the status of the Blinde River FEPA will remain unchanged there will consequently not be any impact on any birds that inhabit the river and the riparian vegetation.

Summary of Impacts:

None

Summary of Management Measures:

None

Recommendations and Influence on Proposed Development:

It was determined that the proposed development was found to be acceptable and will have minimal to no impacts on any threatened or Near Threatened birds. Therefore, this supports the approval of the proposed development.

BUTTERFLY COMPLIANCE STATEMENT:

Summary of Findings:

As per the Screening Tool, the butterfly species of conservation concern was indicated as the (Lepidochrysops littoralis). The findings of the investigation undertaken by the Lepidopterist, has revealed that there is a second SCC which could possibly occur on the site (Aloeides trimenii southeyae). A detailed butterfly survey will need to be undertaken, during the butterfly flight period.

Summary of Impacts:

None.

Summary of Management Measures:

None.

Recommendations and Influence on Proposed Development:

The species sensitivity can be reduced to Low. No impacts are identified, therefore no mitigation is required.

BIODIVERSITY ASSESSMENT:

Summary of Findings:

It was determined that good quality fynbos (i.e. North Langeberg Sandstone Fynbos) will be cleared. Mitigation in such an instance will be impossible to achieve unless some of the plant material, e.g. bulbs, succulents and topsoil containing fynbos seeds, can be salvaged and reintroduced elsewhere in the area where it can aid rehabilitation and conservation efforts.

North Langeberg Sandstone Fynbos is not listed as a threatened vegetation type. It is seemingly well represented and protected in the region. However, if the fragment, located between Albertinia and Mossel Bay, is allocated to a new fynbos type, its conservation status may be less favourable. As it currently stands, the perceived impact on vegetation type is of low to moderate concern. The impact on the biodiversity (CBA) network is also of concern, but is probably of the same order as for the vegetation type. The mapped aquatic ESA through the western end of the site seems artificial as no visible watercourse or wetland features were noted on site.

The impact on SCC is more difficult to assess, since it is currently unknown if certain sensitive species (654 and 1024), as listed in the Screening Report, occur on the property. At least one SCC will be directly impacted, namely *Hermannia lavandulifolia*. It is, however, still abundant and frequently

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encountered by the author and others in the Mossel Bay area

Summary of Impacts:

Impact of construction activities on vegetation type and the biodiversity network.

Summary of Management Measures:

If the entire site is to be developed, consideration should be given to the salvage of plant material (e.g. bulbs, succulents and topsoil containing fynbos seeds), to be reintroduced elsewhere in the Aalwyndal area where it can aid rehabilitation and conservation efforts. Obviously this can only be achieved if a suitable (similar) receiving area can be found in the area. The summer months should be avoided for search and rescue efforts.

Strict control must be exercised to avoid the harming/catching of wildlife in the area during the construction phase. Tortoises (noted on site by the author) should be rescued and relocated to a safe haven elsewhere in the Aalwyndal area.

Recommendations and Influence on Proposed Development:

The ecological specialist has recommended that the above management measures be implemented.

Given the aforementioned recommendations, the BAR and EMPr have been updated accordingly, in order to integrate these recommendations, and allow for appropriate mitigation measures to be implemented.

2. List the impact management measures that were identified by all Specialist that will be included in the EMPr

Botanical Impact Assessment:

Salvage plant material

- Salvage of plant material (e.g. bulbs, succulents and topsoil containing fynbos seeds), to be reintroduced elsewhere in the area where it can aid rehabilitation and conservation efforts
- Management of SCC, Hermannia lavandulifolia, to be salvaged.

Faunal Management

- Strict control must be exercised to avoid the harming/catching of wildlife in the area during the construction phase.
- Tortoises (noted on site by the author) should be rescued and relocated to a safe haven elsewhere in the Aalwyndal area.

Alien Invasive Control

- Remove alien invasive species.
- 3. List the specialist investigations and the impact management measures that will **not** be implemented and provide an explanation as to why these measures will not be implemented.

All impact management measures will be incorporated into the BAR and EMPr for implementation.

4. Explain how the proposed development will impact the surrounding communities.

Potential proposed impacts on the surrounding community:

Negative

- Traffic:
 - Access via the existing road network may create traffic issues for the surrounding community, particularly along Nagtegaal Street, which forms the eastern boundary of Erf 21275, and is the formal access road to at least 3 other properties.
 - Potential for damage to the road surface due to the movement of construction vehicles, delivering materials and plant to the site, may occur.
- Visual impacts:

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- Construction activities will result in a visual impact, due to the transformation of the site from undeveloped to developed. During operational phase there may be further visual impacts due to the alteration of sense of place, as this facility not aligned with the surrounding area.
- Soil and Dust Impacts:
 - As a result of construction activities including excavations, vehicle movement, etc, dust and noise impacts will temporarily create a nuisance for the surrounding community.

Positive

- The proposed development is not similar in nature to anything else within the surrounding area, however as explained in the planning and socio-economic sections of this BAR, there is a need for such a facility, and it is well suited to be positioned adjacent to an existing airport.
- Multiple temporary jobs will be created during the construction phase, and some permanent
 jobs will be created during the operational phase, however, highly reduced as compared to
 the construction phase. Local labour will be sourced from the local communities, particularly
 those of a historically disadvantaged background.
- Boosting of the local economy.
- 5. Explain how the risk of climate change may influence the proposed activity or development and how has the potential impacts of climate change been considered and addressed.

Table 11: Climate change impacts, and their consideration in the proposed development.

According to the Western Cape Department of Environmental Affairs and Development Planning, climate change will affect the Western Cape in the following ways:	How has the potential climate change impacts been integrated in proposed development.
Higher average annual temperature Higher maximum temperatures More hot days and more heat waves Higher minimum temperatures Fewer cold days and frost days	 Daily assessment of weather conditions should be completed during construction stage, to ensure conditions are viable for labourers to be working outside (ie: temperatures are not excessive). Potable water should be available for consumption during construction, to keep labourers hydrated.
Reduced average rainfall in the Western Cape, particularly the western parts	A reduction in rainfall will have minimal impact on the proposed facility. However, it should be noted that the surface will be transformed and stormwater infrastructure will be established to channel and distribute flow in a responsible manner, into the surrounding environment.
Rising sea levels	The proposed development is positioned approximately 4km's inland, and approximately 200m's above sea level.
Increased fire risks	 During construction fires should be strictly prohibited, smoking should be discouraged on site, if it is allowed, there should be a designated area, with an appropriate bin to contain discarded cigarettes, with an appropriately heavy cover. If security is positioned on site, at night, they will be briefed on fire hazard risks.

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Increase in the frequency and intensity of extreme weather events, including floods, droughts, and storm surges

- It is recognized that the effects of climate change, as а result of alternating extreme weather events, are very real impact upon this development, and long-term resilience planning is required. This should be considered in the stormwater recommendations and mitigation measures.
- 6. Explain whether there are any conflicting recommendations between the specialists. If so, explain how these have been addressed and resolved.

The Aquatic ESA has been noted by multiple specialists from a desktop perspective. However, it has been confirmed by an aquatic specialist that there is no aquatic habitat on site, and the online data is incorrect.

7. Explain how the findings and recommendations of the different specialist studies have been integrated to inform the most appropriate mitigation measures that should be implemented to manage the potential impacts of the proposed activity or development.

The findings and recommendations have been integrated into the impact tables (Section F, of this document), and the EMPr, so as to guide the various phases of the project.

8. Explain how the mitigation hierarchy has been applied to arrive at the best practicable environmental option.

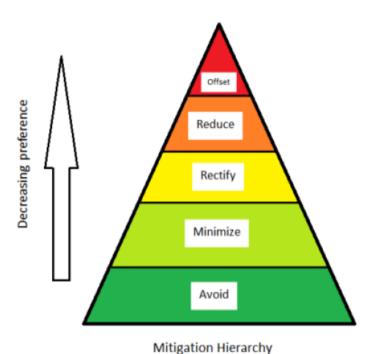


Figure 23: Mitigation Hierarchy.

This hierarchy was considered while determining the best practicable environmental option for the proposed development. Activities related to the proposed development have been considered. Where possible activities have been avoided, therefore all activities included in the proposal of this development are essential for the successful implementation and operation of this development.

Therefore, mitigation measures for the proposed development activities, have been established to firstly minimize and rectify, where possible or radically reduce the predicted impacts, through the inclusion of additional mitigation measures, as further detailed in the EMPr.

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No offsets are required for the proposed development.

SECTION J: GENERAL

1. Environmental Impact Statement

1.1. Provide a summary of the key findings of the EIA.

The key findings of the EIA indicate that the proposed development, can have a positive socioeconomic and environmental impact in terms of:

- No aquatic habitats have been identified on site, and the proposal will not pose a threat to any aquatic habitats.
- Provide a much needed area for people to store their belongings thereby reducing the need for a bigger house in which to store there possessions.
- Put another way, who of us could live in a smaller house and therefore take up less residential
 real estate if we just stored some of our possessions that we don't regularly use instead of
 storing then in our garage or spare rooms?
- Sensitive vegetation has the opportunity to be integrated into conservation efforts being undertaken in the surrounding area.
- The proposed development is acceptable from an agricultural, aquatic and avifaunal perspective.
- The transformation of the site will minimize the chance of avifaunal incidents.
- Creating employment, in both a temporary manner and permanent.
- Creating social stability by providing jobs which not only give a person a sense of self worth but also an opportunity to provide for their family
- Providing an opportunity to clear the existing alien invasive vegetation.
- An appropriately designed stormwater management plan will support the proposed development and minimise potential impacts.
- Contribution to the local economy.

While negative impacts have been found, practical mitigation measures can reduce the impact significance on the environment. These impacts include:

- Construction related impacts such as noise, dust, pollution, traffic, all temporary.
- Alteration of sense of place.
- Biodiversity management.
- Vandalism/theft.

As per the findings from environmental specialist input it has been established that the proposed development is acceptable, as long as the proposed mitigation measures are able to be implemented, and appropriate planning and allowances can be established for the salvaging of good quality flora and SCC's.

1.2. Provide a map that that superimposes the preferred activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers. (Attach map to this BAR as Appendix B2)

The site has no notable CBA's or ESA's. The entire site is planned for transformation, therefore there is opportunity to salvage good indigenous vegetation, which has been highlighted by the Botanical Specialist.

1.3. Provide a summary of the positive and negative impacts and risks that the proposed activity or development and alternatives will have on the environment and community.

Table 12: Summary of positive and negative impacts.

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	CO	NSTRUCTION PHASE		
		NATIVE 1: LAYOUT		'E LAYOUT 2
IMPACT	IMPACT SIGNIFICANCE BEFORE MITIGATION	IMPACT SIGNIFICANCE AFTER MITIGATION	IMPACT SIGNIFICANCE BEFORE MITIGATION	IMPACT SIGNIFICANCE AFTER MITIGATION
Impact of Construction Activities on Vegetation Type and the Biodiversity Network	Medium (-)	Low (-)	Medium (-)	Low (-)
Earthworks, Land Clearance and Sedimentation	Medium (-)	Low (-)	Medium (-)	Low (-)
Soil Contamination and Storage	Medium (-)	Low (-)	Medium (-)	Low (-)
Social Impact: Sense of Place (Noise & Dust)	Medium (-)	Low (-)	Medium (-)	Low (-)
Social Impact: Visual	Medium (-)	Low (-)	Medium (-)	Low (-)
Social Impact: Traffic & Access	Medium (-)	Low (-)	Medium (-)	Low (-)
Social Impact: Vandalism & Security	Medium (-)	Low (-)	Medium (-)	Low (-)
Socio-Economic Impacts – Creation of Multiple Job Opportunities & Capital Expenditure	High (+)			
	OPE	RATIONAL IMPACTS		
		NATIVE 1: LAYOUT		E LAYOUT 2
IMPACT	IMPACT SIGNIFICANCE BEFORE MITIGATION	IMPACT SIGNIFICANCE BEFORE MITIGATION	IMPACT SIGNIFICANCE BEFORE MITIGATION	IMPACT SIGNIFICANCE AFTER MITIGATION
Socio-Economic Impacts: Job Creation & Local Revenue	Medium - High(+)		Medium +	
Socio-Economic Impacts: Provision of a Storage	High (+)		Medium - High(+)	

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Facility Social Impact: Visual & Noise	Low (-)		Low (-)	
Traffic Impact	Medium (-)	Low (-)	Medium (-)	Low (-)
Stormwater Management	Medium (-)	Low (-)	High (-)	Medium – High (-)

2. Recommendation of the Environmental Assessment Practitioner ("EAP")

2.1. Provide Impact management outcomes (based on the assessment and where applicable, specialist assessments) for the proposed activity or development for inclusion in the EMPr

Objective: Salvaging and Protection of Terrestrial Plant Species

Impacts to Avoid:

- Construction disturbance extending beyond the proposed working area.
- Alien invasive encroachment and success.
- Fires on site.
- Poor planning and lack of procedure for salvaging of terrestrial vegetation leading to damage and destruction of good plant material.

Impact Management Actions:

• Liaise with local municipality, in order to obtain guidance for alignment with the local biodiversity offset plan.

Where search and rescue is necessary:

- Time and allowances should be made prior to the commencement of construction activity to allow for the salvaging of good quality plant material, bulbs, etc.
- An ECO must be present for preparation and conduct of plant salvaging.
- The ECO is to guide and educate the labour, with the assistance of an appointed Botanical/Ecological Specialist (temporary), on:
 - Identifying the material needing to be salvaged.
 - Identifying SCC plant material.
 - The correct removal methods, packaging and transportation of salvaged, good quality vegetation (including SCC's).
 - Identification of appropriate holding area (either guidance on creation of an on-site nursery holding area or obtaining the services of an existing nursery as a holding area, or alternative arrangements for appropriate storage and maintenance of salvaged material.
 - Input from CapeNature will be requested to ensure the success of this management measure.
 - The project team is to identify, and agree upon, an appropriate conservation programme/s in the area, for donation of the salvaged plant material.
- Utilize existing infrastructure, or already already disturbed/transformed area for the accommodation of construction plant, construction material, offices, etc. during the construction phase.
- No disturbance or spoiling may occur outside this demarcated area.
- Control the establishment of alien invasive species on and around the site, as a long-term management requirement, until the site is transformed.
- Fires should be prohibited on site.
- Clear all waste within the working area, while clearance takes place, and dispose of it

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appropriately.

Objective: Successful Faunal Management

Impacts to Avoid:

- Harm or trauma to any fauna that may be present or may have wandered onto the site.
- Capturing and keeping wildlife.
- Wildlife harming labour.

Impact Management Actions:

- Time and allowances should be made prior to the commencement of construction activity to allow for search and rescue of faunal species.
- An ECO must be present for preparation and conduct of search and rescue activities.
- The ECO is to guide and educate the labour, on how to safely remove fauna, such as tortoises from the site, and on future conduct in terms of faunal management throughout construction phase, including but not limited to:
 - No person/s may harm, kill, capture or keep any fauna.
 - Where possible, avoid interactions, particularly with fauna that can inflict harm, if such fauna is identified on site contact local SPCA other animal protection and removal services.
- Maintain good house-keeping so that fauna cannot hide amongst debris and material.
- Use shade cloth over existing fence line (boundary of working area), to stop animals from wandering onto site.
- 2.2. Provide a description of any aspects that were conditional to the findings of the assessment either by the EAP or specialist that must be included as conditions of the authorisation.
 - An Environmental Control Officer must be appointed to monitor the compliance and implementation of the Environmental Management Programme, mitigation measures and the Environmental Authorization conditions.
 - Where search and rescue is considered necessary:
 - an appropriate conservation initiative/programme must be identified within the local area, to donate salvaged material to.
 - the Environmental Control Officer must monitor and guide salvaging of plant material (including SCC's)
 - Where necessary, the proponent is responsible for liaising with the local municipality, in order to alian with any applicable biodiversity offset plan.
- 2.3. Provide a reasoned opinion as to whether the proposed activity or development should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be included in the authorisation.

The proposed development should be authorised.

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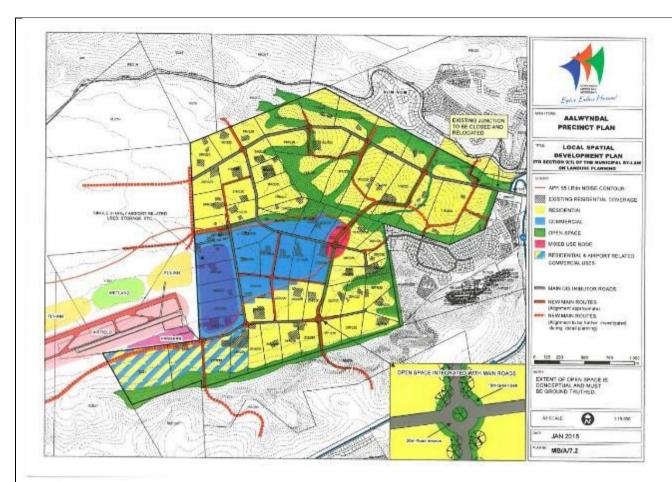


Figure 24: Proposed Aalwyndal Precinct Plan (2018).

As discussed earlier, the proposed site is earmarked for development as per the Precinct Plan, 2018. Given the location of the site, and current zoning, there are limitations for use as a residential site, due to the adjacent airport. Furthermore, the landowner, does not wish to use this site for that purpose. There is a need for support facilities to the airport, and an opportunity for storage facilities, which forms a part of the Mossel Bay Local Municipalities – Investment Conference, 2018, which highlighted an opportunity for a dedicated economic zone/special economic zone to enhance and align with the Mossel Bay Airport.

The proposed development will have minimal dependence on the existing services infrastructure, and while some services will need to be established (sewer, etc.), this will not strain services, as this is not a residential development, it requires very little power, and water, in order to operate at sufficient capacity. Existing access will be utilized, solar panels integrated and rainwater collection via tanks, are integrated into the design.

The possibility of the surrounding area being transformed as per the municipal plan, may leave this area isolated, and prone to disturbance. Existing historical disturbance and potential for future disturbance, from other anthropogenic activities, or natural fires, etc. can potentially result in the complete and unmanaged loss of indigenous, good quality vegetation and SCC's, identified on site.

Through the implementation of this project and its associated environmental management, there lies an opportunity to achieve sustainability by allowing for economic development that will contribute to the community, and municipal growth, as well as salvaging and safeguarding valuable natural environmental material. Extensive planning should go into the planning of conservation initiatives, and open space management, this should be considered when planning the urban development as well, so that it does not compromise the integrity of the conservation initiative and natural environment that is trying to be achieved.

Recommended conditions for EA:

- Where necessary, search and rescue of flora species, considered conservation worthy,

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- should be undertaken, and guidance sought from biodiversity authority, CapeNature.
- Where necessary, the client will liaise with the Municipality, to align with the recommended municipal biodiversity offset plan.
- 2.4. Provide a description of any assumptions, uncertainties and gaps in knowledge that relate to the assessment and mitigation measures proposed.

Biodiversity Survey:

• Fieldwork was carried out early in the winter season, as well as during the spring season, flowering plants that only flower at other times of the year (e.g. summer to autumn), such as certain bulbs (Iridaceae and Amaryllidaceae), may have been missed. The overall confidence in the completeness and accuracy of the botanical findings is therefore considered to be good.

Aquatic Compliance Statement:

- Aquatic ecosystems vary both temporally and spatially. Once-off surveys such as this are therefore likely to miss certain ecological information due to seasonality, thus limiting accuracy and confidence. That said, the entire property was ground truthed on foot, following a rainfall event, and the level of confidence in the findings is high.
- Infield soil and vegetation sampling was only undertaken within a specific focal area around the proposed site, while the remaining aquatic features were delineated at a desktop level.
- No detailed assessment of aquatic fauna/biota was undertaken.
- The vegetation information provided is based on observation not formal vegetation plots. As such species documented in this report should be considered as a list of dominant and/or indicator species and only provide a very general indication of the composition of the vegetation communities. It is assumed that a botanical report will be undertaken.
- The assessment did not include any groundwater studies. The presence and movement of water in the subsurface must be recognised due to the role it could play in maintaining the vegetation mosaic.

Agricultural Compliance Statement:

• In completing this statement, no assumptions have been made and there are no uncertainties or gaps in knowledge or data that are relevant to it.

Avifaunal Compliance Statement:

• The avifauna of the upper reaches of the Blinde River FEPA have not been well surveyed as the area is largely inaccessible. The Blinde River FEPA is in pentad 3410_2200. Aerial photographs (Bing and Google Maps) suggest that this area may be suitable habitat for Knysna Warbler, and this species has been recorded in this pentad.

Butterfly Compliance Statement:

- No assumptions have been made in reaching these conclusions, and there are no significant uncertainties or gaps in knowledge or data.
- 2.5. The period for which the EA is required, the date the activity will be concluded and when the post construction monitoring requirements should be finalised.
 - The period for which the EA is required = 5 years.
 - The date the activity will be concluded = 10 years.
 - When the post construction monitoring requirements should be finalised = 10 years.

3. Water

Since the Western Cape is a water scarce area explain what measures will be implemented to avoid the use of potable water

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during the development and operational phase and what measures will be implemented to reduce your water demand, save water and measures to reuse or recycle water.

Development, Design and Construction.

- Use buckets of water to clean tools and machinery, rather than running water to preserve water.
- Capture rainwater for utilization on site.
- On-going clearance of alien invasive vegetation, that grow faster, and use more water than indigenous vegetation.
- Establish indigenous vegetation, where possible.

Operation:

• As confirmed in the engineering report and as per the layout plan, the roof rainwater flow-off shall be accumulated in rainwater tanks of minimum 20kl per large roof (1,847m2) and 10kl per smaller roof (avg. 900m2) to attenuate stormwater roof run-off.

4. Waste

Explain what measures have been taken to reduce, reuse or recycle waste.

The EMPr has encouraged waste management through the various phases of the project.

Construction Phase:

- An integrated waste management approach (AVOID first, then REDUCE, then REUSE, then RECYCLE, then DISPOSAL) must be adopted.
- Adequate waste receptacles, bins and skips should be available for the collection and removal of waste.
- Individual recycling bins for the various categories (paper, glass, plastic, etc.) must be provided, labelled and have a designated area on site, close to access points (for easy removal), away from any natural areas, and should have appropriately weighted lids, to prevent the wind from toppling the bins, resulting in waste dispersal.
- These bins must be emptied on a weekly basis and dropped off at a collection point for recycling, by recycling companies, ensure that a waste slip is obtained as proof of this, and have this filed in the Environmental File.
- Infographics and educational notices to create awareness around sustainable waste management should be provided.
- Environmental awareness training will be conducted for all site workers to create awareness.
- Any solid waste intended for disposal must be disposed of at a landfill site, licensed in terms of section 20 of the Environment Conservation Act, 1989 (Act No. 73 of 1989) or the National Environmental Management: Waste Act (Act No. 59 of 2008).

Operational Phase:

- Appropriate waste receptacles should be established, for permanent use during operational phase.
- Separation of waste, in separate, labelled waste receptacles, should be encouraged.
- Littering should be restricted, and signage should be erected accordingly.
- On-going monitoring of stormwater infrastructure should be undertaken.

5. Energy Efficiency

- 8.1. Explain what design measures have been taken to ensure that the development proposal will be energy efficient.
 - The principle of efficiency highlights the need for optimal utilisation of existing resources and

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infrastructure. Green Building technologies will be used in the design and construction of the storage facility such as lighting, road materials (if possible) etc., should be taken into consideration.

- The utilization of energy efficient LED type luminaires should be considered and integrated into the final design.
- The Town Planning report notes the integration of solar power, based on the low power dependence required for operation of the facility.

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SECTION K: DECLARATIONS

DECLARATION OF THE APPLICANT

Note: Duplicate this section where there is more than one Applicant.

In Name 75.0.1.85005.0.99 in my personal capacity or duly authorised thereto hereby declare/affirm that all the information submitted or to be submitted as part of this application form is true and correct, and that:

- I am fully aware of my responsibilities in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), the Environmental Impact Assessment ("EIA") Regulations, and any relevant Specific Environmental Management Act and that failure to comply with these requirements may constitute an offence in terms of relevant environmental legislation;
- I am aware of my general duty of care in terms of Section 28 of the NEMA;
- I am aware that it is an offence in terms of Section 24F of the NEMA should I commence with a listed activity prior to obtaining an Environmental Authorisation;
- I appointed the Environmental Assessment Practitioner ("EAP") (if not exempted from this requirement) which:
- o meets all the requirements in terms of Regulation 13 of the NEMA EIA Regulations; or
- meets all the requirements other than the requirement to be independent in terms of Regulation
 13 of the NEMA EIA Regulations, but a review EAP has been appointed who does meet all the requirements of Regulation 13 of the NEMA EIA Regulations;
- I will provide the EAP and any specialist, where applicable, and the Competent Authority with access to all information at my disposal that is relevant to the application;
- I will be responsible for the costs incurred in complying with the NEMA EIA Regulations and other environmental legislation including but not limited to –
 - o costs incurred for the appointment of the EAP or any legitimately person contracted by the FAP:
 - costs in respect of any fee prescribed by the Minister or MEC in respect of the NEMA EIA Regulations;
 - Legitimate costs in respect of specialist(s) reviews; and
 - the provision of security to ensure compliance with applicable management and mitigation measures;
- I am responsible for complying with conditions that may be attached to any decision(s) issued by the Competent Authority, hereby indemnify, the government of the Republic, the Competent Authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action for which I or the EAP is responsible in terms of the NEMA EIA Regulations and any Specific Environmental Management Act.

Note: If acting in a representative capacity, a certified copy of the resolution or power of attorney must be attached.

Signature of the Applicant:

pany (if applicable):

Date:

Juic.

DI	ECLARATION OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")
l .	Ameesha Sanker , EAPASA Registration number
•	Information provided in this BAR and any other documents/reports submitted in support of this BAR;
•	The inclusion of comments and inputs from stakeholders and I&APs Not applicable.
•	The inclusion of inputs and recommendations from the specialist reports where relevant; and
•	Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties, and that: Not applicable.
•	In terms of the general requirement to be independent: o other than fair remuneration for work performed in terms of this application, have no business financial, personal or other interest in the activity or application and that there are no circumstances that may compromise my objectivity; or o am not independent, but another EAP that meets the general requirements set out in Regulation 13 of NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review EAP must be submitted);
•	In terms of the remainder of the general requirements for an EAP, am fully aware of and meet all of the requirements and that failure to comply with any the requirements may result in disqualification;
•	I have disclosed, to the Applicant, the specialist (if any), the Competent Authority and registered interested and affected parties, all material information that have or may have the potential to influence the decision of the Competent Authority or the objectivity of any report, plan of document prepared or to be prepared as part of this application;
•	I have ensured that information containing all relevant facts in respect of the application was distributed or was made available to registered interested and affected parties and that participation will be facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments;
•	I have ensured that the comments of all interested and affected parties were considered recorded, responded to and submitted to the Competent Authority in respect of this application Not applicable
•	I have ensured the inclusion of inputs and recommendations from the specialist reports in respect of the application, where relevant;
•	I have kept a register of all interested and affected parties that participated in the public participation process; and
•	I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations;

04/11/2021

Date:

Sharples Environmental Services.cc

Name of company (if applicable):

Signature of the EAP:

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DE	CLARATION OF THE REVIEW EAP
l	the appointed Review EAP hereby declare/affirm that:
•	I have reviewed all the work produced by the EAP;
•	I have reviewed the correctness of the information provided as part of this Report;
•	I meet all of the general requirements of EAPs as set out in Regulation 13 of the NEMA EIA Regulations;
•	I have disclosed to the applicant, the EAP, the specialist (if any), the review specialist (if any), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared as part of the application; and
•	I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations.
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Sig	nature of the EAP: Date:

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