




THE SPAR GROUP (LTD)

Basic Assessment (BA) for the Proposed Construction of a New SPAR Distribution Centre on Erf 1092 at Redhouse in Port Elizabeth, Eastern Cape Province

Final Basic Assessment Report

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BASIC ASSESSMENT REPORT

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Application Number:

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THE SPAR GROUP (LTD)

BASIC ASSESSMENT (BA) FOR THE PROPOSED CONSTRUCTION OF A NEW SPAR DISTRIBUTION CENTRE ON ERF 1092 AT REDHOUSE IN PORT ELIZABETH, EASTERN CAPE PROVINCE

FINAL BASIC ASSESSMENT REPORT

Executive Summary

Project Description

Due to the growing market demands, the SPAR Group (Ltd) (hereafter referred to as 'SPAR') are proposing to construct a new SPAR Distribution Centre on Erf 1092 at Redhouse in Perseverance, Port Elizabeth, Nelson Mandela Bay Metropolitan Municipality (NMBMM) in the Eastern Cape Province (hereafter referred to as the 'proposed development'). The project site is a 146 000m² undeveloped erf and is in close proximity to an existing SPAR Distribution Centre on Kohler Road. The proposed project site currently belongs to the Nelson Mandela Bay Metropolitan Municipality (NMBMM). The proposed development will entail the following:

- Conference Facility (including Entrance Foyer, IT Centre, Training Rooms, Bar Facility, Conference Ablutions & Entertainment Area);
- Security Entrance & Staff Ablution;
- Canteen;
- Guardhouse / Entrance Canopy;
- Truck Workshop & Truck Wash;
- Services Room (accommodating electrical, transformer and generator);
- Municipal Sub-station;
- Truck Entrance & Guard House;
- Fire Pump House;
- Main internal storm water drainage (including paved/concrete/reno mattress overland flow routes, catch pits, manholes and pipework up to outside of the buildings);
- Main internal water reticulation up to the outside of the buildings for operational purposes (including supply to the fire tanks, fire hydrants and fire hose reels which will include the municipal water connection to site, bulk water meter, valves, specials, bends, thrust blocks, bulk water meter and strainer chambers);
- Municipal sewer extension, connection to existing municipal system and main internal sewer drainage system up to the outside of the buildings (including gravity sewer lines, manholes, sewer pump station and pumping main including valve and thrust blocks);
- Paved road and parking area (including layer works, kerbs, storm water drainage, road marking and traffic signs);

- Concrete areas for entrance road and external operational area up to the outside of the buildings (including layer works, joints and storm water drainage);
- Bulk storm water system (including grassed storm water detention ponds, overflow structures, concrete lined channels, catch pits, pipework and connection to municipal system);
- Extension to Kohler road (including the layer-works, kerbing, storm water drainage, traffic signs and road marking); and
- Upgrade of the Kohler/Chelsea Roads intersection (including layer works, storm water drainage, procurement of traffic signals and related ducts and manholes, traffic signs and road marking).

It is important to note that the proposed development will be constructed in a phased manner. It was advised that construction of the entire proposed development will ultimately be undertaken in four (4) phases over a period of approximately 20 years. The timing of the subsequent phases (2 to 4) will be determined by market forces, as well as SPAR's business requirements and priorities in the future. This may vary from year to year as SPAR assesses their development strategy as the need is required. Phase 1 construction activities will be undertaken in 2017 / 2018, while the construction activities related to Phases 2 to 4 will be undertaken at intervals dependent on the growth of the region. Phase 2 related construction activities are expected to be undertaken in the next 5 to 7 years, Phase 3 related construction activities in 10 to 12 years, and the final phase (i.e. Phase 4) in 15 to 20 years' time. It should be noted that this Environmental Application for Environmental Authorisation (EA) will however include all four (4) phases of the proposed development and will ultimately cover the activities related to all four (4) phases.

Environmental Application

SiVEST SA (Pty) Ltd (hereafter referred to as SiVEST) has subsequently been appointed as independent Environmental Assessment Practitioner (EAP) by SPAR to undertake the Basic Assessment (BA) process for the proposed development. The proposed development requires Environmental Authorisation (EA) from the Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (DEDEA). The BA will be carried out under the 2014 Environmental Impact Assessment (EIA) Regulations which were promulgated in December 2014 (Government Gazette No. 38282 of the 4th of December 2014) embodied by the National Environmental Management Act (NEMA) (Act 107 of 1998) as amended. In terms of these regulations, a BA is required for the proposed development.

A Site Locality Map is provided in **Figure i** below. A Site Layout Map illustrating the infrastructure and internal roads proposed as part of the proposed development is displayed in **Figure ii** below. A long term site plan indicating the different components of the proposed development, as well the phasing for each respective component, is provided in **Figure iii** below.

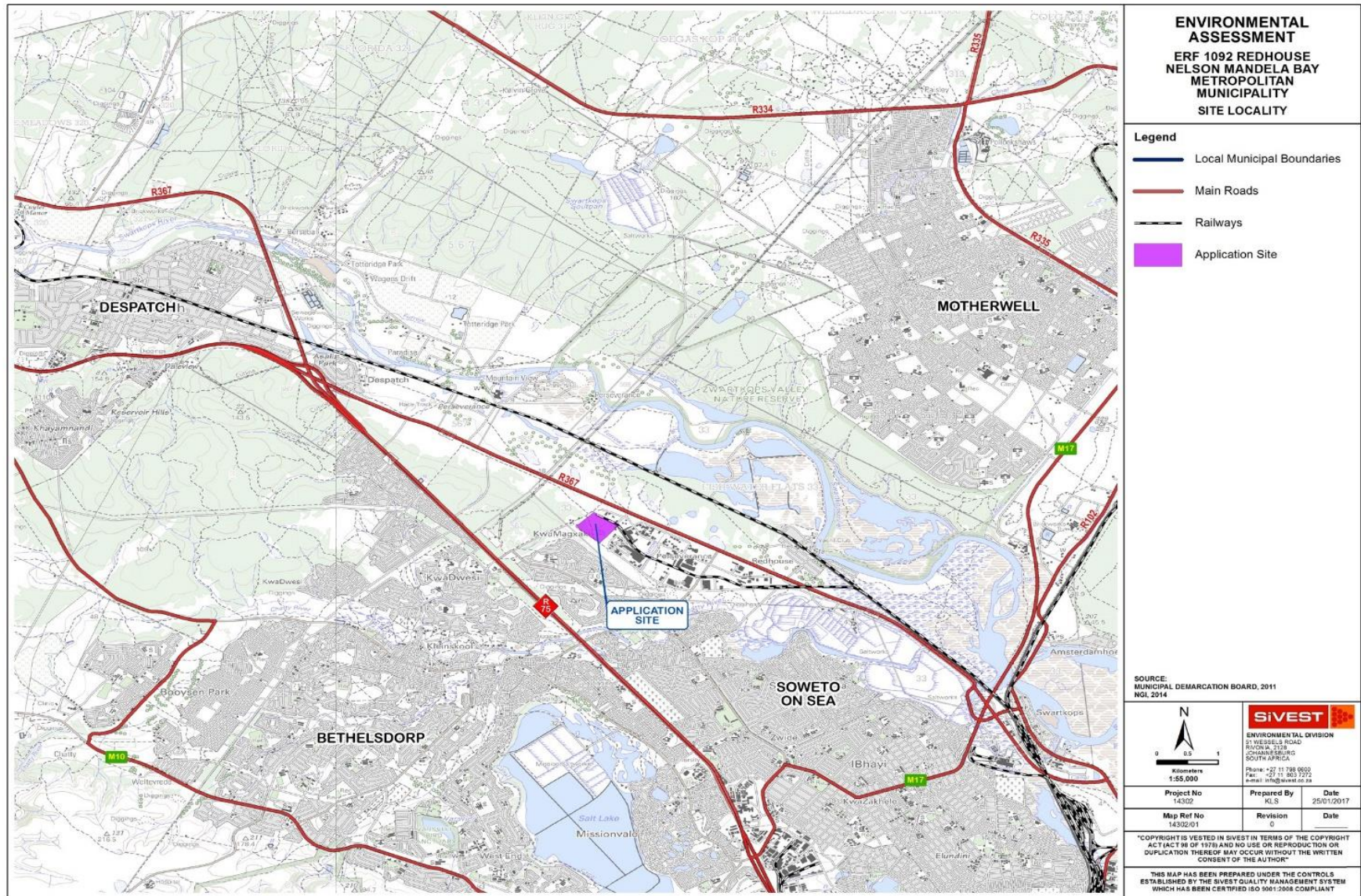


Figure i: Site Locality Map

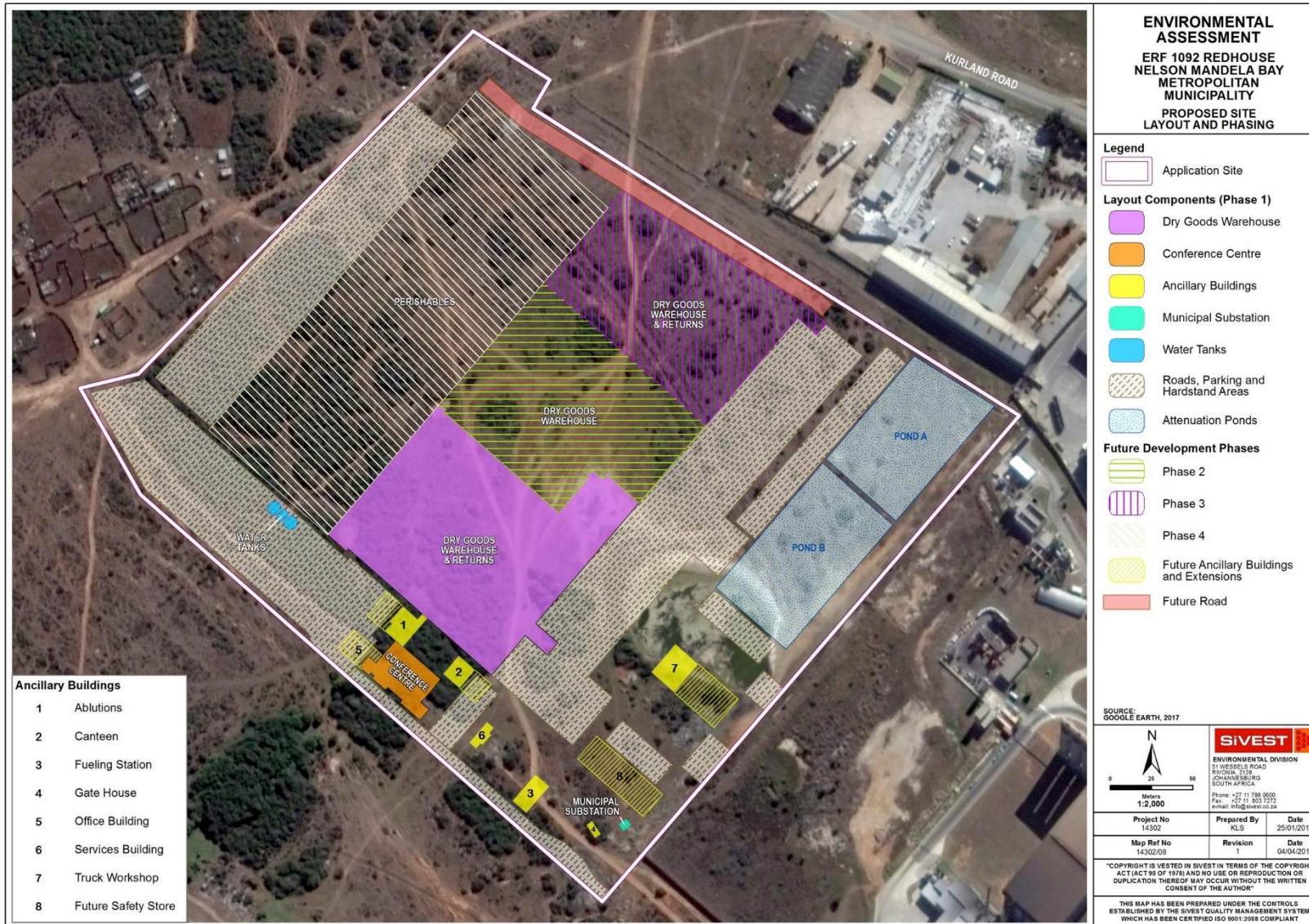


Figure ii: Site layout Map illustrating the infrastructure and roads proposed as part of the proposed development

The SPAR Group (Ltd)

prepared by: SiVEST SA (Pty) Ltd – Environmental Division

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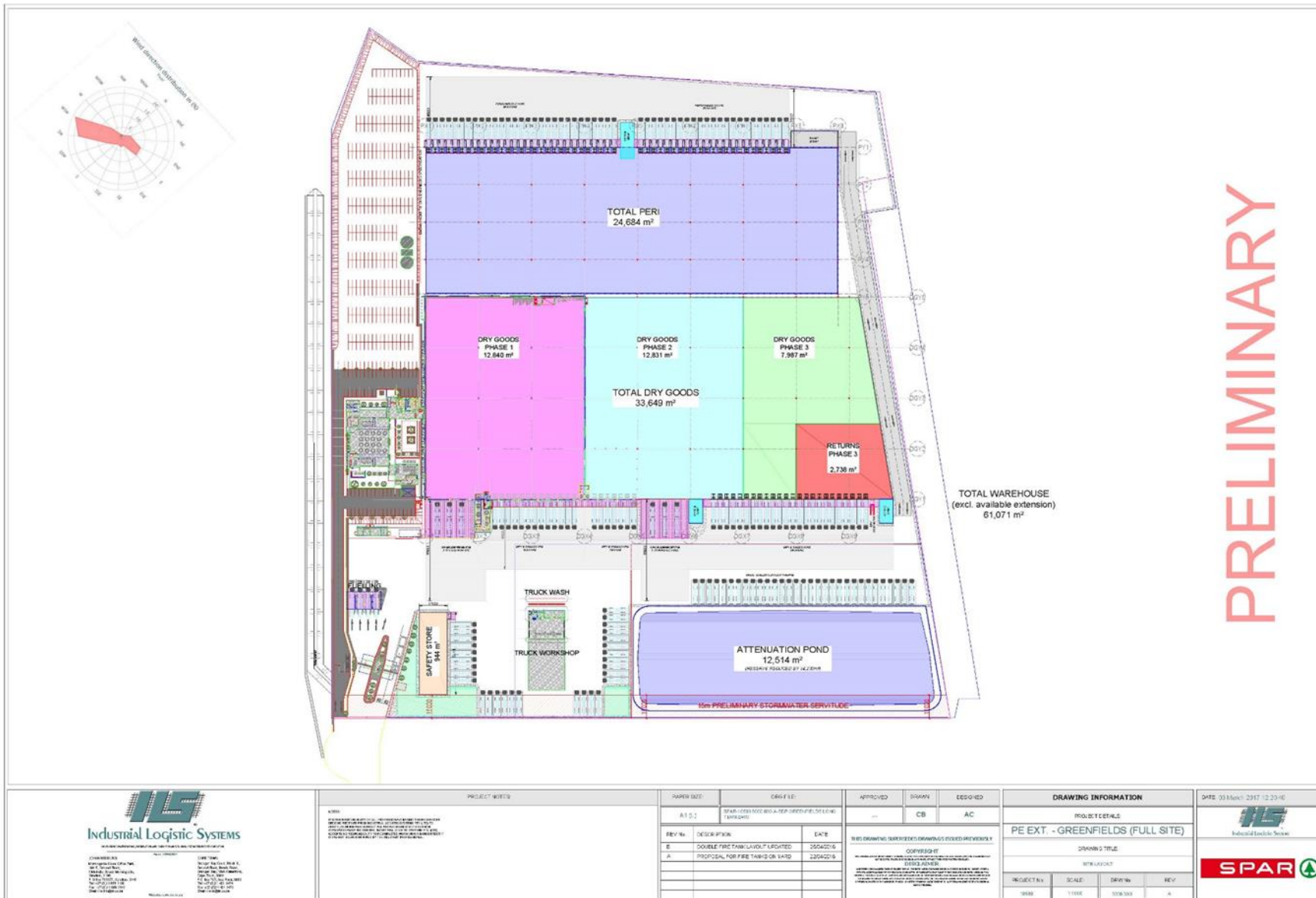


Figure iii: Long Term Site Plan indicating the different components of the proposed development, as well the phasing for each respective component

Alternatives

As per Chapter 1 of the EIA regulations (2014), feasible and reasonable alternatives are required to be considered during the EIA or BA process. Alternatives are defined as “different means of meeting the general purpose and requirements of the activity” These alternatives may include:

- a) The property on which or location where it is proposed to undertake the activity;
- b) The type of activity to be undertaken;
- c) The design or layout of the activity;
- d) The technology to be used in the activity;
- e) The operational aspects of the activity; and
- f) The option of not implementing the activity.

Each of these alternatives is discussed in relation to the proposed project in the sections below.

The property on which or location where it is proposed to undertake the activity

The chosen property is the only site which is considered to be feasible and viable with regards to the construction of the new SPAR Distribution Centre. SPAR do not own any other premises which can accommodate the proposed development. Therefore the proposed project site is the only site alternative that is being considered with regards to the proposed development.

The type of activity to be undertaken

The needs for the proposed development is specific. The proposed development will involve the construction of a new SPAR Distribution Centre, with the purpose of housing the increase in SPAR’s operational demands due to national and regional growth. It should be noted that the new project site makes provision for future expansion according to the SPAR 20 year expansion plan. Therefore, the type of activity is specific and no alternatives will be considered in this regard.

The design or layout of the activity

No layout alternatives are being considered and/or assessed with regards to the proposed construction of the new SPAR Distribution Centre due to the fact that the current proposed layout is planned to be carried out in a phased manner, and has been achieved through the extensive organising and planning of the space and facilities required by SPAR. The phased construction of the proposed development will ultimately require the entire developable area of the proposed site. The current layout therefore maximises the site usage, taking into consideration the phasing of the proposed development. The current proposed layout is also considered to be the most cost effective way to establish a facility in order to meet SPAR’s current demands, as the topography of the site would result in large, expensive civil works in order to get phase one complete, and then still take into consideration the future phasing. The site currently only has one means of access to the proposed facility, due to the limitations of local infrastructure and the built environment, and therefore the first phase of the development has to be placed within realistic distances of the provided access point.

Figure iv below highlights the phasing which is planned to be executed on the site over time and illustrates that the entire site will be used for the proposed development, thereby negating the possibility of alternative layouts.

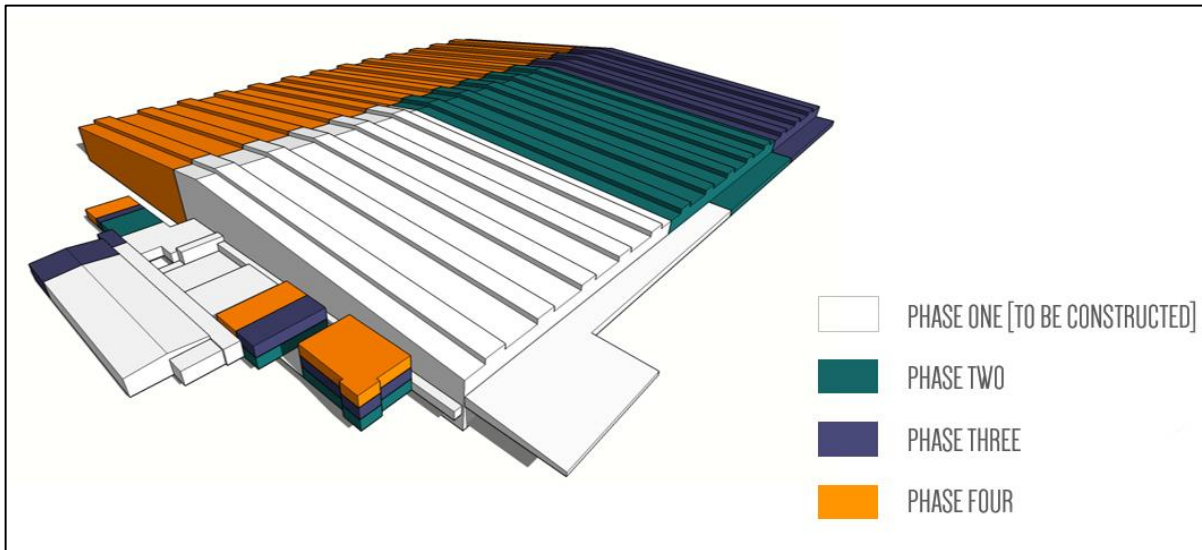


Figure iv: Image illustrating the phasing to be executed on the site over time and why alternative layouts would not be able to accommodate SPAR’s programme requirements in the future.

The technology to be used in the activity

The proposed development will be distribution warehouse. The provision for alternative technology is therefore not applicable.

The operational aspects of the activity

No operational alternatives are applicable for the proposed development as standard operational activities will be undertaken as relevant for each phasing of the proposed development.

The option of not implementing the activity

The “no-go” option is the option of not undertaking the proposed development. The proposed development is being proposed in order to house the increase in SPAR’s operational demands due to national and regional growth. SPAR Eastern Cape has outgrown their current Distribution Centre in Perseverance and therefore need to find a new site to establish a new distribution centre. The new site has to accommodate SPAR’s 20 year expansion plan and must also be in close proximity to the existing Distribution Centre. The proposed project site identified is an undeveloped erf that is located in the same street as SPAR’s existing Distribution Centre, thus fulfilling their need of having a large site to accommodate their expansion plans as well as being close to the existing Distribution Centre. The proposed development will increase the extent of SPAR’s operations within the area, as well as bolster the business development within the area. The proposed development can be considered to be in the best interest of both SPAR, as well as the surrounding local communities, as it has the potential to increase profits for SPAR and contribute to

employment opportunities for members of the local communities. Should the “no-go” option be selected, the above mentioned socio-economic benefits would not be realised.

Specialist Findings

Several specialist studies were conducted during the BA process to identify issues or legislative implications associated with the proposed development. These include:

- Biodiversity Impact Assessment;
- Surface Water Delineation and Impact Assessment;
- Heritage Impact Assessment (including desktop Palaeontological Impact Assessment); and
- EIA level Palaeontological Impact Assessment.

A summary of the specialist findings has been provided in **Table i** below.

Table i: Specialist Findings Summary Table

Environmental Parameter	Summary of Major Findings	Recommendations
Biodiversity	<p><u>Floral Scan:</u></p> <ul style="list-style-type: none"> • During the field assessment, three habitat units were observed within the boundaries of the study area, namely Degraded Sundays Thicket, Transformed habitat and Wetland habitat. Limited areas of Sundays Thicket remain, and the habitat integrity has been degraded by land uses such as intensive livestock grazing and subsistence agriculture. The Wetland habitat unit has been severely degraded by dumping of rubble and discharge from urban storm water runoff. The Transformed habitat unit has been severely degraded by vegetation clearance, rubble dumping, edge effects associated with industrial activities, alien floral invasion and subsistence agriculture; • One floral Species of Conservation Concern (SCC), namely <i>Sideroxylon inerme</i> (milkwood) was observed during the site assessment. This species is protected under the National Forest Act (1998). • It is recommended that the trees on the study site are incorporated as part of the landscaping of the proposed development, after obtaining the relevant permits. 	<ul style="list-style-type: none"> • It is recommended that any infrastructure is planned away from the wetland where possible. Some of the rescued species could be planted in the wetland buffer zone to re-establish Sundays Thicket as a further trade-off for development in the remaining Degraded Sundays Thicket. Rehabilitation and clean-up of the wetland can also be considered; • If the Sundays Thicket habitat unit is to be developed, a possible suitable trade-off would be to conserve and rehabilitate a portion of the remaining habitat on site. Furthermore, the majority of the genera occurring naturally (<i>Crassula</i>, <i>Portulacaria</i>, <i>Carissa</i>, <i>Euphorbia</i>, <i>Aloe</i>, <i>Schotia</i> etc.) are excellent waterwise landscaping plants. Thus, plants sourced from the disturbance footprint can be used for landscaping purposes and the local floral genetic diversity can be conserved in-situ; • Upon completion of construction activities, it must be ensured that no

Environmental Parameter	Summary of Major Findings	Recommendations
	<p><u>Faunal Scan:</u></p> <ul style="list-style-type: none"> The species observed comprised mainly of common faunal species, particularly those that are adept at living and inhabiting areas in close proximity to human developments. Species encountered during the field assessment included <i>Telophorus zeylonus</i> (Bokmakierie), <i>Numida meleagris</i> (Helmeted Guineafowl) and <i>Rattus rattus</i> (Common Rat). During the site investigation, no faunal SCC were observed. Furthermore, due to the degraded nature of the study area, specialized habitat requirements of most faunal SCC, distribution ranges and high levels of anthropogenic activity, it is deemed unlikely that any SCC will occur within the study area at present; During the palaeontological site assessment, <i>Chersina angulata</i> (Angulate Tortoise), was encountered. This species is listed as Least Concern by the IUCN and is not threatened. It is however listed in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) which regulates the trade of this species. However, rescue and relocation of this species will not require any permits. <p><u>Terrestrial Impact Assessment:</u></p> <p>Prior to mitigation, the impacts on floral and faunal SCC are low significance impacts. If effective mitigation takes place, all impacts may be reduced to very-low significance impacts.</p> <p><u>Sensitivity:</u></p> <p>The wetland identified on site and the associated biodiversity was found to have moderate sensitivity, while the Degraded Sundays Thicket</p>	<p>bare areas outside the development footprint remain and that indigenous grassland species endemic to the area are reintroduced as part of landscaping activities;</p> <ul style="list-style-type: none"> <i>Sideroxylon inerme</i> (milkwood) was observed during the site assessment. This species is protected under the National Forest Act (1998). It is recommended that permits are obtained from the Department of Water and Sanitation (DWS) and the trees are incorporated as part of the landscaping of the proposed development, after obtaining the relevant permits; It is recommended that a rescue and relocation operation is implemented for <i>Chersina angulata</i> (Angulate Tortoise) prior to any site clearing activities taking place and that all tortoises be relocated to the nearby Zwartkops Valley Nature Reserve; Should any other floral or faunal SCC be encountered within the development footprint during the construction or operational phase, the following should be ensured: <ul style="list-style-type: none"> Effective conservation/relocation of individuals to suitable similar habitat in the vicinity of the area from where they have been removed must be ensured; and All rescue and relocation plans should be overseen by a suitably qualified specialist.

Environmental Parameter	Summary of Major Findings	Recommendations
	<p>habitat unit was found to have an intermediate sensitivity. In addition, the transformed areas on site were deemed to have a low sensitivity.</p> <p>Based on the findings of the ecological assessment, it is the opinion of the ecologists that the proposed project be considered favorably. However, all mitigation measures and recommendations presented in this report should be adhered to as to ensure the ecology within the proposed disturbance areas as well as surrounding zone of influence is protected or adequately rehabilitated in order to minimize the deviations from the Present Ecological State.</p>	
Surface Water	<p>At a broad level, the study area is situated within the Swarkops Primary Catchment within quaternary catchment M10D. The study site falls within the Fish to Tsitsikamma Water Management Area (WMA). Ultimately, it was found that there is one depression wetland on the study site and no other wetlands within a 500m radius of the study site. Following the delineation process, the depression wetland was measured to be 1.1 hectares in extent, with a perimeter of 482m. The wetland is considered ecological important at a desktop level due to the classification of the wetland as a Wetland FEPA and part of a wetland cluster according to the NFEPA (2011) database.</p> <p>The PES of the wetland was assessed to fall within a Class D with a score of 4.36 indicating that the wetland is largely modified (40-60% modification). Factors identified contributing to the degraded hydrological status at a catchment level included increased surface run-off from the surrounding catchment (most notably stormwater outlets from the Kwamagxaki residential area to the south, and reduced surface roughness). Additionally, at a site</p>	<p>The only way to permit the loss of the depression wetland is to compile and implement a suitable wetland offset plan that is acceptable and approved by the DWS and DEDEA. As such, a wetland off set plan must be put in place and implemented such that there is no “net-loss” of the wetlands in the local area. This will need to be compiled by a suitably qualified wetland specialist for approval by the relevant environmental and water authorities.</p>

Environmental Parameter	Summary of Major Findings	Recommendations
	<p>specific level, changes to the water distribution and retention within the wetland were noted as a result of changes in surface roughness (including removal of vegetation, establishment of dirt roads and overgrazing) and dumping. Furthermore, excavation of furrows to divert water out of the wetland were also identified to reduce the retention ability of the wetland. From a vegetation perspective, contributing factors affecting the ecological state included the influx of sediment from the stormwater outlets, infilling of rubble material, deposition of litter and other substances in the wetland, as well as overgrazing from cattle due to subsistence agriculture in the area.</p> <p>The wetland ecosystem services were assessed and provided for the depression wetland. With regards to the potential wetland ecosystems services provided, the depression wetland scored highest in terms of sediment trapping and toxicant removal followed closely by phosphate trapping and nitrate removal. The scores, however, only scored to a moderate level. Overall, the wetland ecosystem services scored to a moderate level for those which scored highest. All other wetland ecosystem services scored fairly low. This was mainly due to the largely degraded present ecological state of the wetland.</p> <p>The EISC for the depression wetland was determined. The results showed that the depression wetland was categorised as a Class C (Moderate). The wetland is classified at a national level as a Wetland FEPA, identified within the NFEPA (2011) database. Furthermore, the wetland vegetation type is classed as Endangered at a National (Mucina & Rutherford, 2006) and District level (NMBMM,</p>	

Environmental Parameter	Summary of Major Findings	Recommendations
	<p>2010). Therefore, whilst the main potential functions of the depression wetland is the ability of the wetland to perform a functional role in terms of sediment trapping, attenuation of storm water, energy dissipation and particulate removal for the study site, the importance in terms of conservation planning is the most significant factor of the wetland. This is due to the fact that the wetland is a wetland FEPA, and is considered nationally endangered and critically endangered locally.</p> <p>As the wetland will be lost, no buffer zone was implemented.</p> <p>In terms of potentially applicable environmental and water related legislation, several listed activities and water uses have been identified that are likely to be applicable to the proposed development. Accordingly, in terms of NEMA (1998) and the EIA Regulations (2014), Activities 12 and 19 of Government Notice 983, were identified as being applicable.</p> <p>With respect to the NWA (1998), water uses (c) and (i) were identified as being applicable. The aforementioned identified activities and water uses should however be confirmed with the relevant government departments.</p> <p>Foreseen potential negative impacts in terms of the proposed development were identified and assessed. The potential construction related impacts related to geomorphological (-34 medium pre- and post-mitigation impact rating) and water quality impacts (-33 medium pre- and post-mitigation impact rating). The transitory potential construction impacts will eventually get overridden by the eventual loss of the wetland due to infill and transformation into the various</p>	

Environmental Parameter	Summary of Major Findings	Recommendations
	<p>proposed development components and attenuation ponds. The operational impacts identified included loss of wetland regulating and supporting functions (-36 medium pre- and post-mitigation impact rating) and loss of wetland habitat (-40 medium pre- and post-mitigation impact rating).</p> <p>It is understood that due to limited space (based on the entire project and additional future phases to be constructed), the current layout and project components cannot be altered such that the proposed development can avoid the wetland. As a result, the proposed development will need to involve the infill of the wetland in order to facilitate construction.</p>	
<p>Heritage (including desktop Palaeontological Impact Assessment)</p>	<p>The archival research undertaken for the project indicated that there was not expected to be any significant archaeological or historical resources present on the study area.</p> <p>The subsequent field work completed for the HIA component in January 2017, has confirmed that two heritage sites / find spots were identified within the project study area. These included two (2) lithic artefacts, both out of context. The first, an Earlier Stone Age (ESA) chopper, was found on top of a recently backfilled excavation. The second, a Middle Stone Age (MSA) core, was a surface find. None of these constitutes an archaeological site. No other archaeological material or sites were identified during the field survey.</p> <p>The desktop PIA indicated that the development footprint of the study area is underlain by the Cretaceous aged Sundays River and Kirkwood Formations of the Uitenhage Group. The Palaeontological sensitivity of these areas is rated at a desktop level as very high and a full</p>	<p>The following mitigation measures are required:</p> <p><u>Pre-Construction / Archaeology:</u> Since only two isolated archaeological find spots were recorded, which are considered to be of low to negligible significance, no mitigation measures will be required.</p>

Environmental Parameter	Summary of Major Findings	Recommendations
	EIA level assessment was undertaken for further detail (information provided below).	
Palaeontology (full EIA level Palaeontological Impact Assessment)	<p>The full EIA level Palaeontological Impact Assessment was undertaken as a separate study following the Heritage desktop assessment which identified the Cretaceous aged Sundays River and Kirkwood Formations of the Uitenhage Group which are regarded as very highly sensitive areas. As such, this Palaeontological Assessment forms part of the Heritage Impact Assessment (HIA) and complies with the requirements of the South African National Heritage Resource Act No 25 of 1999.</p> <p>The detailed fieldwork confirms that the study area for the proposed study site is mainly underlain by Cretaceous aged sedimentary rocks of the Sundays River Formation, Uitenhage Group and Tertiary to Quaternary aged Intermediate and Low Level Fluvial Gravel of the Swartkops River. These Cretaceous to Quaternary aged sedimentary rocks weather into very clay rich soils that characterize the study area, with very high groundwater levels in the gravel beds.</p> <p>Several possible mineralized (expected to be “fossilized”) bones may occur with hundreds of clearly defined much younger bones within the study site. A Very High Palaeontological sensitivity is allocated to areas underlain by the Fossiliferous Cretaceous aged marine deposits of the Sundays River Formation and a High Palaeontological sensitivity to areas underlain by Low Level Gravels of Tertiary to Quaternary age.</p>	<ul style="list-style-type: none"> • The ECO and EOs must be informed of the fact that a Very High Palaeontological sensitivity was allocated to the areas of the development underlain by rocks of the Uitenhage Group and a High Palaeontological sensitivity is allocated to areas underlain by rocks of the Low Level fluvial gravels on site. Although suspiciously fossiliferous, bone material found associated with Tertiary aged gravels might be related to recent (1968-69 flooding in the area and the HIA will take note of this fact. • A protocol for the chance find of fossils compiled and forms part of an Addendum to this Phase 1 PIA study. This report must be discussed with the ECO on site as soon as clearing of topsoil starts for this project. • These recommendations as well as the recommended actions mentioned in the “Chance Find Protocol” must be included in the EMP of this project.

Wetland Offset Details

As the wetland delineated on the study site will be infilled and ultimately lost, a wetland offset plan will be compiled for approval by the Department of Water and Sanitation (DWS). This will be submitted as part of the water use license application (WULA) process to be undertaken for the proposed development. The goal of the wetland offset will be to protect intact wetlands or alternatively rehabilitate similar depression wetlands within the same local catchment should no intact wetlands be identified. Six (6) potential wetland offset sites have been identified that are within a 2km radius of the wetland to be lost on the study site. This is shown in **Figure iv** below.



Figure iv. Potential Wetland Offset Rehabilitation Sites numbered 1 to 6. Study Site outlined in Blue.

Through the wetland offset process, the relevant stakeholders will be engaged to assist in identifying the most suitable site at a stakeholder workshop. The details will be included in the wetland offset plan to be approved by the DWS in the WULA process. The WULA process will be undertaken in accordance with **Chapter 4 Part 1 Section 21** of the National Water Act, 1998 (Act No. 36 of 1998) whereby the following water uses will be applied for:

- c) Impeding or diverting the flow of water in a watercourse;
- i) Altering the bed, banks, course or characteristics of a watercourse.

The ultimate responsibility of the management of the wetland offset will be SPAR.

Public Participation

A thorough public participation process (PPP) was undertaken as part of the BA process. This was initiated in March 2017. Included in this report are the respective meeting minutes and the Comment and Response Report (C&RR) containing all comments / concerns / issues received from registered stakeholders or interested and/or Affected Parties (I&APs) for the duration of the project up to this point.

EAP Recommendation

Through the findings of the BA process, it is the opinion of the Environmental Assessment Practitioner (EAP) that the proposed development should be allowed to proceed provided that the recommended mitigation measures are implemented, and provided the following conditions are adhered to:

- All mitigation measures recommended by the various specialists should be strictly implemented.
- Final EMPr should be approved by DEDEA prior to construction.
- The “Chance Find Protocol” which forms part of the EIA level Palaeontological Impact Assessment needs to be included in the EMPr and a reasonable budget need to be allocated in order to ensure compliance with the legal responsibility of the developer in terms of the proper conservation of and storage of palaeontological heritage.
- A suitable wetland offset plan that is acceptable and authorised by the Department of Water and Sanitation (DWS) and DEDEA must be compiled by a suitably qualified wetland specialist and submitted as part of the environmental and water use license application processes in order to facilitate the current layout and offset the proposed loss of the depression wetland.

It is SiVEST’s opinion that the potential impacts associated with the proposed development are not significant enough to prevent the project from proceeding. Additionally, no objections have been raised by registered I&APs, stakeholders or organs of state / authorities from an environmental perspective to date. SiVEST is therefore of the opinion that the impacts associated with the construction and operation phases can be mitigated to acceptable levels provided the recommended mitigation measures and specialist recommendations are implemented. EA should therefore be granted on condition that the EAP recommendations above are implemented, a wetland offset plan is subsequently compiled and approved by the DWS following EA, and that the necessary permits are obtained where necessary for the relevant biodiversity, heritage and palaeontological resources.

THE SPAR GROUP (LTD)

BASIC ASSESSMENT (BA) FOR THE PROPOSED CONSTRUCTION OF A NEW SPAR DISTRIBUTION CENTRE ON ERF 1902 AT REDHOUSE IN PORT ELIZABETH, EASTERN CAPE PROVINCE

FINAL BASIC ASSESSMENT REPORT

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Appendix G3: Draft Scoping Document Compiled for Technical Aspects of Proposed Development

Appendix G4: Background Information Document (BID) and BID Registration and Comment Forms (including proof of distribution)

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List of Abbreviations

BA	Basic Assessment
BAR	Basic Assessment Report
CARA	Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983)
C&RR	Comments and Response Report
DBAR	Draft Basic Assessment Report
DEDEA	Eastern Cape Department of Economic Development, Environmental Affairs & Tourism
DEA	Department of Environmental Affairs
DWS	Department of Water & Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EMF	Environmental Management Framework
EMPr	Environmental Management Programme
FBAR	Final Basic Assessment Report
GIS	Geographic Information System
GN	Government Notice
HIA	Heritage Impact Assessment
I&AP	Interested and/or Affected Party
PIA	Palaeontological Impact Assessment
NEMA	National Environmental Management Act, 1998 (Act No.107 of 1998)
NEMBA	National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
NMBMM	Nelson Mandela Bay Metropolitan Municipality
NWA	National Water Act, 1998 (Act No. 36 of 1998)
PPP	Public Participation Process
SAHRA	South African Heritage Resources Agency
SANBI	South African National Biodiversity Institute
SANRAL	South African National Roads Agency SOC Limited
SG	Surveyor General
SMME	Small, Medium and Micro Enterprise
SWMP	Storm Water Management Plan

THE SPAR GROUP (LTD)

BASIC ASSESSMENT (BA) FOR THE PROPOSED CONSTRUCTION OF A NEW SPAR DISTRIBUTION CENTRE ON ERF 1092 AT REDHOUSE IN PORT ELIZABETH, EASTERN CAPE PROVINCE

FINAL BASIC ASSESSMENT REPORT

1. INTRODUCTION

Due to the growing market demands, the SPAR Group (Ltd) (hereafter referred to as 'SPAR') are proposing to construct a new SPAR Distribution Centre on Erf 1092 of the Property Redhouse, at Perseverance in Port Elizabeth, Nelson Mandela Bay Metropolitan Municipality in the Eastern Cape Province (hereafter referred to as the 'proposed development'). It is important to note that the construction of the entire proposed development will ultimately be undertaken in four (4) phases over a period of approximately 20 years. At this stage, it is envisaged that Phase 1 construction activities will be undertaken in 2017 / 2018, while Phase 2 related construction activities are expected to be undertaken in the next 5 to 7 years, Phase 3 related construction activities in 10 to 12 years and the final phase (i.e. Phase 4) in 15 to 20 years' time. These timeframes are however not final and may be subject to change as the project progresses.

SiVEST SA (Pty) Ltd (hereafter referred to as SiVEST) has subsequently been appointed as independent Environmental Assessment Practitioner (EAP) by SPAR to undertake the Basic Assessment (BA) process for the proposed development. The proposed development requires Environmental Authorisation (EA) from the Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (DEDEA) and will be carried out under the 2014 Environmental Impact Assessment (EIA) Regulations which were promulgated in December 2014 (Government Gazette No. 38282 of the 4th of December 2014) embodied by the National Environmental Management Act (NEMA) (Act 107 of 1998) as amended. In terms of these regulations, a Basic Assessment (BA) is required for the proposed development. All relevant legislation and guidelines will be consulted during the BA process and will be complied with at all times. As mentioned above, the proposed development will be constructed in a phased manner (i.e. Phases 1 to 4) over a period of approximately 20 years. EA will however be sought and obtained for all four (4) phases of the proposed development and will ultimately cover the activities related to all four (4) phases.

As previously mentioned, the proposed development involves the construction of a new SPAR Distribution Centre, with the purpose of housing the increase in SPAR's operational demands due to national and regional growth. It should be noted that the new project site makes provision for future expansion according to the SPAR 20 year expansion plan. In addition, the project site is in close proximity to an existing SPAR Distribution Centre on Kohler Road. The proposed project site will be accessed primarily via Kohler Road which will need to be extended as part of the proposed development. Additionally, the proposed development will also include the upgrade of the Kohler/Chelsea Roads intersection.

2. PROJECT BACKGROUND

The proposed development involves the construction of a new SPAR Distribution Centre, with the purpose of housing the increase in SPAR's operational demands due to national and regional growth. The proposed development will entail the construction of a self-sustainable facility which includes a new Dry Goods Warehouse with an internal Returns Area and Workshop/Charging Bay. In addition, the proposed development will also include the following:

- Conference Facility (including Entrance Foyer, IT Centre, Training Rooms, Bar Facility, Conference Ablutions & Entertainment Area);
- Security Entrance & Staff Ablution;
- Canteen;
- Guardhouse / Entrance Canopy;
- Truck Workshop & Truck Wash;
- Services Room (accommodating electrical, transformer and generator);
- Municipal Sub-station;
- Truck Entrance & Guard House;
- Fire Pump House;
- Main internal storm water drainage (including paved/concrete/reno mattress overland flow routes, catch pits, manholes and pipework up to outside of the buildings);
- Main internal water reticulation up to the outside of the buildings for operational purposes (including supply to the fire tanks, fire hydrants and fire hose reels which will include the municipal water connection to site, bulk water meter, valves, specials, bends, thrust blocks, bulk water meter and strainer chambers);
- Municipal sewer extension, connection to existing municipal system and main internal sewer drainage system up to the outside of the buildings (including gravity sewer lines, manholes, sewer pump station and pumping main including valve and thrust blocks);
- Paved road and parking area (including layer works, kerbs, storm water drainage, road marking and traffic signs);
- Concrete areas for entrance road and external operational area up to the outside of the buildings (including layer works, joints and storm water drainage);
- Bulk storm water system (including grassed storm water detention ponds, overflow structures, concrete lined channels, catch pits, pipework and connection to municipal system);
- Extension to Kohler road (including the layer-works, kerbing, storm water drainage, traffic signs and road marking); and
- Upgrade of the Kohler/Chelsea Roads intersection (including layer works, storm water drainage, procurement of traffic signals and related ducts and manholes, traffic signs and road marking).

The following information should also be noted:

- The site is undeveloped but is located within an industrial area;
- The site does not fall within any National Threatened Ecosystems;
- The site is within 5 km of a Formal Protected Area – i.e. the Swartkops Valley Local Authority Nature Reserve;

- The site is not within a CBA, ESA or riverine process area in terms of the NMBM's Bioregional Plan (2015);
- Pre-transformation vegetation types mapped on the site are Motherwell Karroid Thicket and Sundays Doringveld Thicket (NMBM Bioregional Plan, 2015); and
- The Ecosystem Status of the site is rated as 'endangered' on a metropolitan scape (NMBM Bioregional Plan, 2015).

It is important to note that the proposed development will be constructed in a phased manner. It was advised that construction of the entire proposed development will ultimately be undertaken in four (4) phases over a period of approximately 20 years. The timing of the subsequent phases (2 to 4) will be determined by market forces, as well as SPAR's business requirements and priorities in the future. This may vary from year to year as SPAR assess their development strategy as the need is required. As such, a detailed programme indicating when the above-mentioned phases will be implemented, is not available. It is envisaged that Phase 1 construction activities will be undertaken in 2017 / 2018, while the construction activities related to Phases 2 to 4 will be undertaken at intervals dependent on the growth of the region. Phase 2 related construction activities are expected to be undertaken in the next 5 to 7 years, Phase 3 related construction activities in 10 to 12 years and the final phase (i.e. Phase 4) in 15 to 20 years' time. These timeframes are however not final and may be subject to change as the project progresses. It should be noted that EA will however be obtained for all four (4) phases of the proposed development and will ultimately cover the activities related to all four (4) phases.

The new project site makes provision for future expansion according to the SPAR 20 year expansion plan and is located in close proximity to an existing SPAR Distribution Centre. The proposed project site will be accessed primarily via Kohler Road which will need to be extended as part of the proposed development. Additionally, the proposed development will also include the upgrade of the Kohler/Chelsea Roads intersection. It is important to note that the proposed project site currently belongs to the Nelson Mandela Bay Metropolitan Municipality (NMBMM). Ownership of the project site is however in the process of being transferred to SPAR. The drafting of a sale agreement has commenced and will include a number of suspensive conditions, one being EA. The transfer of ownership of the project site will thus only commence (conveyancing) once the suspensive conditions are met and therefore the property will ultimately belong to SPAR.

A Site Layout Map for the proposed development has been provided in **Figure 1** below.

A long term site plan indicating the different components of the proposed development, as well the phasing for each respective component, is provided in Figure 2 below.

Please note that the proposed bulk storm water, sewer and water reticulation systems have not been illustrated in **Figure ii below. Site plans illustrating the bulk storm water, sewer and water reticulation systems being proposed as part of the proposed development have been included in **Appendix C – Facility Illustration(s)**.*

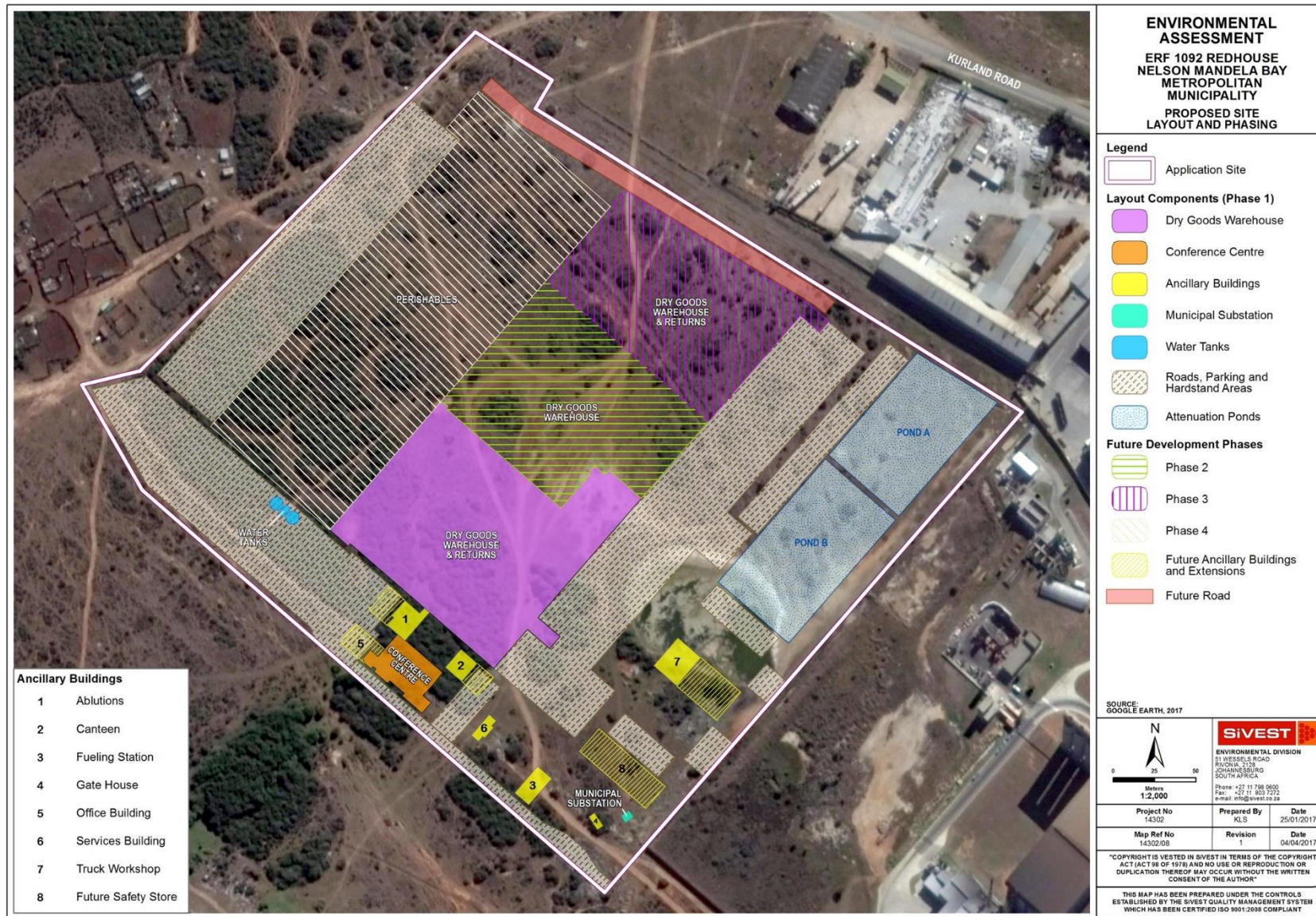


Figure 1: Site Layout Map

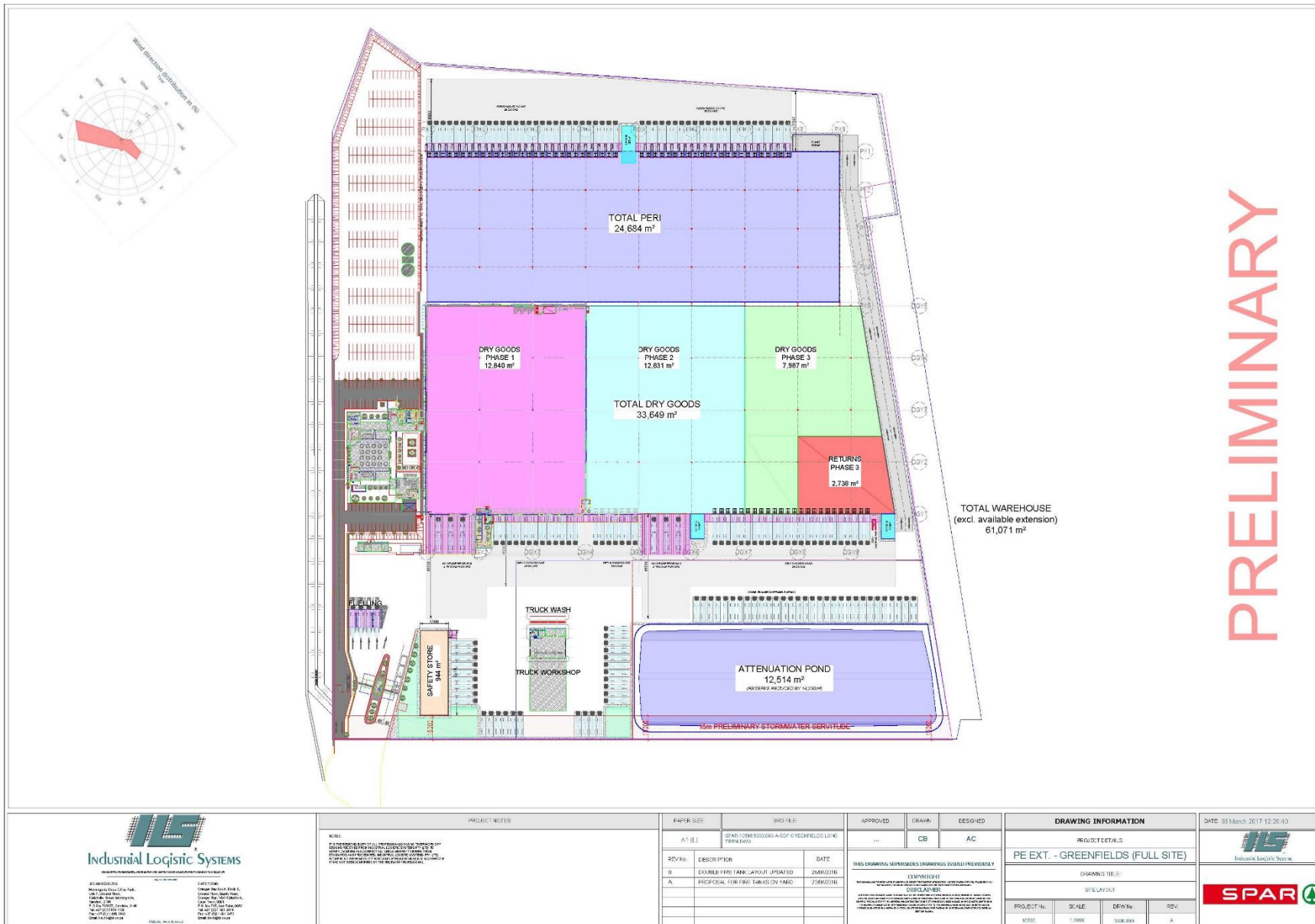


Figure 2: Long term site plan indicating the different components of the proposed development, as well the phasing for each respective component

2.1 Alternatives

As per Chapter 1 of the EIA regulations (2014), feasible and reasonable alternatives are required to be considered during the EIA or BA process. Alternatives are defined as “different means of meeting the general purpose and requirements of the activity” These alternatives may include:

- g) The property on which or location where it is proposed to undertake the activity;
- h) The type of activity to be undertaken;
- i) The design or layout of the activity;
- j) The technology to be used in the activity;
- k) The operational aspects of the activity; and
- l) The option of not implementing the activity.

Each of these alternatives is discussed in relation to the proposed project in the sections below.

2.1.1 The property on which or location where it is proposed to undertake the activity

The chosen property is the only site which is considered to be feasible and viable with regards to the construction of the new SPAR Distribution Centre. SPAR do not own any other premises which can accommodate the proposed development. Therefore the proposed project site is the only site alternative that is being considered with regards to the proposed development.

2.1.2 The type of activity to be undertaken

The needs for the proposed development is specific. The proposed development will involve the construction of a new SPAR Distribution Centre, with the purpose of housing the increase in SPAR’s operational demands due to national and regional growth. It should be noted that the new project site makes provision for future expansion according to the SPAR 20 year expansion plan. Therefore, the type of activity is specific and no alternatives will be considered in this regard.

2.1.3 The design or layout of the activity

No layout alternatives are being considered and/or assessed with regards to the proposed construction of the new SPAR Distribution Centre due to the fact that the current proposed layout is planned to be carried out in a phased manner, and has been achieved through the extensive organising and planning of the space and facilities required by SPAR. The phased construction of the proposed development will ultimately require the entire developable area of the proposed site. The current layout therefore maximises the site usage, taking into consideration the phasing of the proposed development. The current proposed layout is also considered to be the most cost effective way to establish a facility in order to meet SPAR’s current demands, as the topography of the site would result in large,

expensive civil works in order to get phase one complete, and then still take into consideration the future phasing. The site currently only has one means of access to the proposed facility, due to the limitations of local infrastructure and the built environment, and therefore the first phase of the development has to be placed within realistic distances of the provided access point.

Figure 3 below highlights the phasing which is planned to be executed on the site over time and illustrates that the entire site will be used for the proposed development, thereby negating the possibility of alternative layouts.

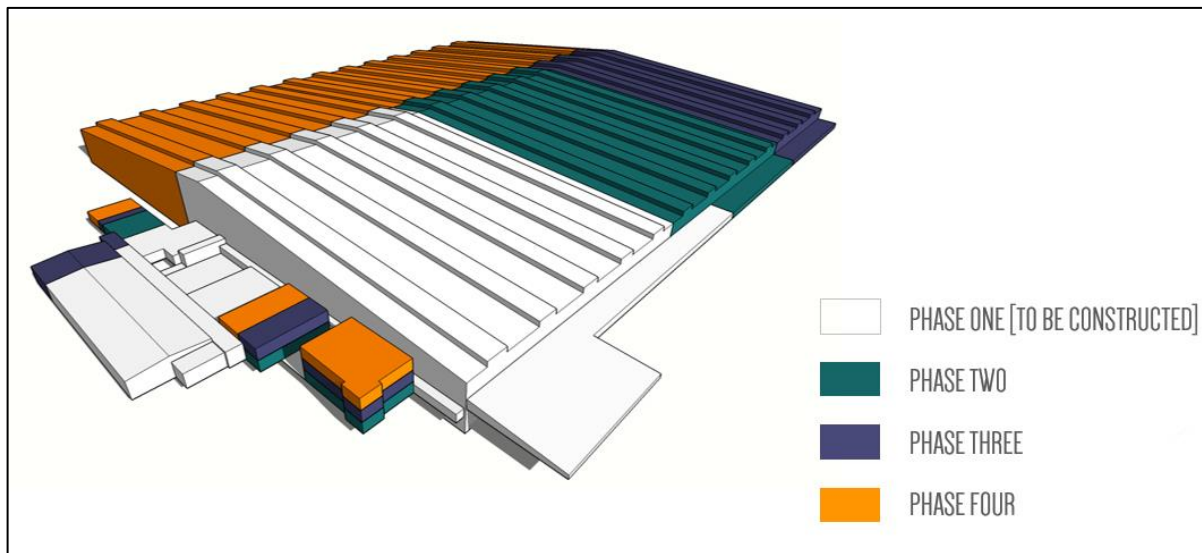


Figure 3: Image illustrating the phasing to be executed on the site over time and why alternative layouts would not be able to accommodate SPAR’s programme requirements in the future.

2.1.4 The technology to be used in the activity

The proposed development will be distribution warehouse. The provision for alternative technology is therefore not applicable.

2.1.5 The operational aspects of the activity

No operational alternatives are applicable for the proposed development as standard operational activities will be undertaken as relevant for each phasing of the proposed development.

2.1.6 The option of not implementing the activity

The “no-go” option is the option of not undertaking the proposed development. The proposed development is being proposed in order to house the increase in SPAR’s operational demands due to national and regional growth. SPAR Eastern Cape has outgrown their current Distribution Centre in Perseverance and therefore need to find a new site

to establish a new distribution centre. The new site has to accommodate SPAR's 20 year expansion plan and must also be in close proximity to the existing Distribution Centre. The proposed project site identified is an undeveloped erf that is located in the same street as SPAR's existing Distribution Centre, thus fulfilling their need of having a large site to accommodate their expansion plans as well as being close to the existing Distribution Centre. The proposed development will increase the extent of SPAR's operations within the area, as well as bolster the business development within the area. The proposed development can be considered to be in the best interest of both SPAR, as well as the surrounding local communities, as it has the potential to increase profits for SPAR and contribute to employment opportunities for members of the local communities. Should the "no-go" option be selected, the above mentioned socio-economic benefits would not be realised.

2.2 Technical Details

The various components (including the extent of each respective component) which will be constructed as part of the proposed development are provided in **Table 1** below.

Table 1: Extent of Proposed Development Components

BUILDING	AREA (m²)
Dry Goods Warehouse	14 555
Warehouse	12 818
Dry Goods Office	342
Office 1	15
Office 2	15
Office 3	16
Meeting Room	24
Kitchenette	8
Open Plan Office (in DGO)	105
Ablutions (male and female)	29
Issue Room	7
Meeting Room	22
Open Plan Office 2 (in warehouse)	60
Filing Room	7
Security Entrance Area	34
Battery Charging Area	176
Washbay	31
Returns Area	1 188
Warehouse	1 100
Returns Office	88
Conference Centre and Staff Facilities	1 465
Conference Facility	1 154
Conference Centre	485
Warehouse Connection	50
Reception	89

Search Cubicles	7
Conference Foyer	109
I.T. Centre	65
Training Room 1	55
Training Room 2	55
Bar Facility	54
Conference Centre Ablutions (male and female)	63
Entertainment Area (braai)	47
Conference Store 1	13
Conference Store 2	15
Exterior Store 1	11
Entertainment Store	11
AV Room	11
Server Room	5
Bar Kitchenette	9
Staff Ablutions (male and female)	120
Canteen	191
Canteen Area	122
Canteen Kitchen	40
Canteen Office	13
Cold Room	8
Dry Store	8
Courtyard 1	380
Courtyard 2	240
Other Buildings	735
Guard House	40
Entrance Canopy	63
Truck Workshop	300
Ablutions	20
Entrance	5
Storage Area's	84
Part Store	32
Oil Store	31
Tyre Store	14
Office	13
Open Plan Office	83
Kitchenette	11
Toilet	7
Truck Wash	183
Wash Area	170
Ablutions	5
Chemical Store	8
Services Room (electrical)	96
Switch-gear Room	20

Transformer Room	20
Generator Room	36
LV Room	20
Fire Pump House	28
Pump House	28
Municipal Substation	25

The various components which will be constructed as part of the proposed development are described in more detail below:

- **Dry Goods Warehouse**

The orientation and position of the Dry Goods Warehouse is determined by the 20 year expansion plan. The Warehouse has a floor area of 12 800m² and accommodates 8 levels of racking. The structure is designed for maximum spans to achieve uninterrupted warehouse floor space. The mono pitch roof configuration is the most cost effective and practical solution to the large roof area. This also allows for easy expansion to the east and north facades. The roof monitors are clad with polycarbonate sheeting, to allow for natural light to infiltrate the building. This will reduce the energy consumption of the artificial lighting. The exterior walls of the warehouse are 2.8m high masonry walls with aluminum cladding up to the desired height, with the south facing dock leveller walls constructed in concrete to provide a more robust element. The southern façade consists of 20 dock levellers and 5 “on grade” access points. The “on grade” receiving and dock levellers are covered with canopy’s to provide protection from the elements whilst offloading.

Internally there is a Dry Goods Office, Battery Charging Area and a Wash Bay. The seamless concrete floors are designed to conform to the tolerances required for hysters that operate at heights of 16m. The seamless floor has minimal joints and provides a durable, robust solution. The entrance to the Warehouse on the western façade becomes the gateway to the Warehouse.

On the southern façade in between the “on-grade” receiving and dock levellers there is a 215m² Dry Goods Office that will house all the Dry Goods personnel and will be accessed from inside the Warehouse. The walls will be face brick with a concrete roof slab to accommodate future single storey vertical expansion. Internal configuration consists of an open plan area consisting of 2 Offices, a Boardroom, a Kitchenette and open plan Office Area.

It was advised that the Dry Goods Warehouse will be used in order to store approximately 5500 general grocery lines which are non-hazardous, as well as certain non-perishable items / goods. As such, the Dry Good Warehouse will only store consumer goods which are typically found in SPAR stores. These include perishable food and grocery products, as well as non-perishable items / goods such as soft drinks, alcohol, cleaning products, hygiene products (e.g. Deodorant), stationary etc.

▪ **Returns Area**

Adjacent to the main Warehouse is a 1 085m² Returns Area which will be used to return stock to be processed for recycling within the facility. The baler that is housed in the Returns Area will be able to recycle old stock by compressing old cardboard, paper and plastic into bales, thereby greatly increasing efficiency and significantly reducing cost for waste disposal. The Returns Area will be an extension to the Dry Goods Warehouse. The same roof configuration and materials are used to allow for easy expansion in the future. Internally there is a Returns Office with a concrete roof slab for future single storey vertical expansion. A steel fence will separate the Dry Goods Office area from Returns Area and there will be ramp with forklift access on the eastern façade.

▪ **Conference Facilities**

The Conference Facility consists of a 1 000m² Conference Centre, including:

- Entrance Foyer
- IT Centre
- Training Rooms
- Bar Facility
- Conference Ablutions
- Entertainment Area

The Facility is located on the eastern side of the Dry Goods Warehouse. The final position and orientation is a result of future expansion studies, access, security and circulation.

The design concept is to create three separate building blocks around a permanent courtyard allowing flexibility for each building to expand independently as required. The “lego block” approach allows for all buildings to be able to grow with the 20 year expansion plan.

The Conference Centre is designed to accommodate 320 people. Acoustic sliding stacking doors will be used to create smaller Training Rooms when required. A 50m² Training Room will be used for various training courses.

The Entrance Foyer is the threshold space for visitors as they approach the building during functions and events. The double volume space also leads into the IT Centre and the Conference Ablutions. The Entrance Foyer will have stacking doors opening on to a break away space on the northern side of the building.

The eastern façade of the Conference Centre leads out onto the main courtyard. Folding stacking doors can be opened during functions creating a connection to a green space in an otherwise harsh industrial environment. This green courtyard will act as a break away and gathering space when events take place and will improve the spatial qualities within the Conference Centre. When a conference takes place, additional acoustic doors can be used to reduce sound from the Canteen and the Staff Ablutions. The Conference Centre can open up on three facades that all lead to green spaces providing flexibility during events.

The Bar Facility leads off the Conference Centre and opens up and be used to serve the guests during a conference. Furthermore there are storage areas and a backstage access area for performers to access the stage.

The Conference Centre walls are masonry walls up to 4.5m high and an acoustic ceiling. Combined with acoustic wall panels these two acoustic elements will form part of the sound attenuation design. The Conference Centre consists of a steel A-frame structure clad with aluminum sheeting. This design is the most cost effective and aesthetically pleasing roof configuration for large spans.

▪ **The Security Entrance and Staff Ablution**

The single Security Point is critical to the day to day operations of SPAR. In order to accommodate future growth the Security Entrance position is located on the northern façade of the building. The concept being that when the buildings expand to the northern side there is enough space to expand the parking north and keep the security entrance fixed throughout expansion.

The Security Entrance and main thoroughfare that leads into the warehouse is 165m² and acts as the main connector of the Conference Centre, Ablutions and Warehouse. The Security Entrance has a reception/security node where staff and the public will be searched and welcomed. Once past the security node the staff are restricted within the confines of the facility. There is a second set of turnstiles before entering the Warehouse.

The thoroughfare southern facade is glass to create a connection to the Courtyard before entering the Warehouse whilst activating the northern edge of the Courtyard making the Courtyard more vibrant. At the end of the thoroughfare is the staircase that leads down a level onto the Dry Good Warehouse floor.

The 130m² Ablutions will accommodate 50 male and 30 female SPAR employees in Phase 1. The design concept is to extend the building to the northern side as the site grows. The internal layouts are designed to accommodate easy expansion with minimalistic disruption in the future.

▪ **The Canteen**

Enclosing the southern edge of the Courtyard is the Canteen. The Canteen will serve the SPAR staff compliment for Phase 1 and is designed to grow to the southern edge as the expansion takes place

By using glass folding stacking doors the northern façade of the Canteen opens up on to the Courtyard. Creating minimal thresholds and pleasant green spaces the Courtyard will act as an extension of the Canteen where staff can escape from the industrial environment.

The service yard is located on the southern edge of the Canteen building and leads straight of the kitchen.

- **Courtyard**

The 400m² Courtyard will be fixed throughout the 20 year expansion plan. As expansion takes place and the infrastructure around the Courtyard grows the activity inside the Courtyard will grow and will create a vibrant social space.

Activating all the edges surrounding the Courtyard by opening up the facades with glass stacking doors will create a visual and physical connection to the Courtyard that will result for good connected and vibrant spaces for visitors and employees to enjoy.

Trees, plants and grassed areas will be used in the Courtyard to soften the industrial elements surrounding it and act as driver for serenity within the surrounding buildings and Courtyard.

The Courtyard ultimately improves the spatial qualities of the surrounding building and gives the SPAR employees and visitors a space to break away and relax but also allows the buildings that surround the Courtyard to expand in each direction independently.

- **Guardhouse / Entrance Canopy**

The Entrance Canopy and Guardhouse will act as the main security point for trucks entering the site and will also be the first element viewed by the public. Using the iconic SPAR colors and materials it will give the site an identity and set the tone for the public as they enter the site.

The Entrance point consists of 2 truck lanes in and two lanes out which will be monitored by the staff within the 40m² Guardhouse. The Guardhouse has a kitchenette, toilet and space surrounded by glass viewing panels for maximum visibility. The Guardhouse will be constructed out of brickwork combined with SPAR cladding elements. The floor is raised 1500mm above the natural ground level to improve the connection between the truck drivers and security inside the Guardhouse. The roof will be concrete structure to accommodate future single storey vertical expansion.

Floating over the Guardhouse will be the steel structure Entrance Canopy that will protect truck drivers from the elements and together with the Guardhouse create a sense of entrance and identity as you enter the site.

- **Truck Workshop & Truck Wash**

The 415m² Truck Workshop is designed to accommodate two (2) trucks and has one (1) service pit. Roller shutter doors on the western and eastern facades of the building allow for good circulation and protection from the prevailing winds. The Truck Workshop consists of ablutions with locker space, 3 storage areas and a mezzanine with offices and kitchenette above the storage areas.

Adjacent to the Truck Workshop is the Truck Wash with its own ablution and locker space. The Truck Workshop and Truck Wash will consist of one mono pitch roof to reduce the cost of two separate roof structures. Expansion

to the Truck Workshop will be to the southern boundary of the site. The combined roof structure will be used to capture rainwater in tanks. This water will be reused for the Truck Wash and irrigation to the site.

It was advised that the Truck Workshop will store approximately 6000 litres (ℓ) of engine and hydraulic oil. The use and storage of these materials will however be strictly controlled. These materials will be stored on sealed surfaces in safe, secure environments in order to prevent any potential damage to the environment.

▪ **Services Room**

The Service Room is a 116m² free standing building to house electrical equipment. It comprises of 4no. independent rooms, namely the Switch-gear Room, Transformer Room, Generator Room and LV Room. Each room has independent access to the outside as well as sufficient ventilation by means of aluminum louvres. The façade of the Services Room comprises of both face brickwork to a height of 1.1m and then plaster and paint to roof height. The roof is an aluminum roof sheeting and as mentioned before, aluminum louvres are fitted into opening in the perimeter walls

▪ **Fire Pump House and Water Storage Tanks**

The Fire Pump House and Water Storage Tanks area has a foot print of 390m², which comprises of a Pump House to house all pumps and mechanical equipment and 2no. 459m³ Water Storage Tanks.

▪ **On-Site Infrastructure**

- Main internal storm water drainage which will include paved/concrete/reno mattress overland flow routes, catch pits, manholes and pipework up to outside of the buildings
- Main internal water reticulation up to the outside of the buildings for operational purposes including supply to the fire tanks, fire hydrants and fire hose reels which will include the municipal water connection to site, bulk water meter, valves, specials, bends, thrust blocks, bulk water meter and strainer chambers
- Municipal sewer extension, connection to existing municipal system and main internal sewer drainage system up to the outside of the buildings which will include gravity sewer lines, manholes, sewer pump station and pumping main including valve and thrust blocks
- Paved road and parking area including layer works, kerbs, storm water drainage, road marking and traffic signs
- Concrete areas for entrance road and external operational area up to the outside of the buildings including layer works, joints and storm water drainage

▪ **Municipal Infrastructure**

- Extension to Kohler road including the layer-works, kerbing, storm water drainage, traffic signs and road marking
- Upgrade of the Kohler/Chelsea Roads intersection including layer works, storm water drainage, procurement of traffic signals and related ducts and manholes, traffic signs and road marking

- Bulk storm water system which will include grassed storm water detention ponds, overflow structures, concrete lined channels, catch pits, pipework and connection to municipal system

- **Road Access**

- The proposed extension to Kohler Road, Perseverance will serve Phase 1 of the mentioned development.
- The access off Kohler Road will be the primary entrance/exit to and from the site for heavy vehicles.

- **Roads – Structural**

The structural design of the roads will have to be done in accordance with the TRH4 Specifications: structural design of Inter-urban and Rural ROAD Pavements subject to the conditions as indicated in the geo-technical report.

The structural layer works of the paved areas, roads and concrete pavements will be designed to accommodate the repetitive axle loads associated with post-development light vehicles, heavier commercial vehicles and heavy vehicles as applicable. The applicable design wheel loads exerted on the roadway pavements, buried piping and embankments will be reviewed and selected prior to design.

Typically the THR4: Class VI 1.0 -3.0.1.0 million 80kN axle loads will be used to design the roadway pavements. However, the applicable axle loads of the forklifts could exceed the afore-mentioned Class VI loads. Such forklift axle loads will be considered where appropriate.

The in-situ material and structural layer works will mainly be classified in accordance with the TRH 14: Guidelines for road construction materials.

- **Roads - Geometric Design**

The minimum upgraded width of the road extension to Kohler Road will be 8.0m.

At the end of the Kohler road extension, a turning facility to accommodate up to 22m long vehicles shall be provided in the municipal road reserve. It is recommended to have a turning facility with a 16m radius.

As far as practical possible, the vertical alignment of the roads, paved areas and concrete pavements will have to be done in accordance with the mentioned guidelines as indicated earlier in this report. As far as practical possible the preferred gradients for the concrete pavements will vary between 1% and 2% and the roads between 3% and 0.5%.

The roads, paved areas and concrete pavements will also act as shallow overland stormwater flow routes.

▪ **Storm water System**

In general an approach will be adopted to detain the overland flow as far as practical possible on and near the proposed industrial development on the north-eastern part of Erf 1092 Redhouse to control the storm water run-off under discussion in a responsible way.

Considering the size of the storm water catchment area, the 10m width of the Storm water servitude adjacent to the north-western boundary of Erf 811 Redhouse downstream of Erf 1092, Redhouse, existing and future township layouts, and topography and soil conditions inter alia, the following design considerations shall be considered.

The Storm water flow of the catchment area south-west of the site and the site (up to 1 in 100 year flood conditions) will mainly be directed to and detained by detention ponds on site.

The detained discharge (up to 1 in 5 year rainstorm conditions) from the ponds will be directed to flow via the proposed piped connection to the formal municipal system.

The controlled discharge from potentially fuel and oil contaminated areas such as the fuel area and wash bay will be routed via grit traps and oil separators. The controlled piped flow will be discharged to the foul sewer system and the potential overflow will be directed to the ponds.

The surface flow from the roads, paved area and concrete pavements will be intercepted by catch pits with grate or side inlets. The intercepted flow will gravitate to the afore-mentioned ponds.

Erosion protection measures have to be implemented at embankments, inlet-, and outlet- and overflow structures including overland flow routes. This can be done by the effective design and construction of semi-rigid Gabion/Reno mattress/geo-textile structures and establishment of effective ground cover.

Due to the partial sedimentation process that occur under lower flow velocities in the detention ponds and biological breakdown of pollutants by the sun energy and oxidation, the quality of the intercepted run-off can be improved prior to discharge to the existing water courses.

▪ **Water Reticulation**

The main internal Water Reticulation to the development will be connected to the existing municipal 225mm diameter pipe near the south-eastern corner of Erf 1092 Redhouse.

The proposed water reticulation system on Erf 1092 Redhouse has to accommodate the required minimum residual head pressure of 150kPa under total instantaneous peak demands including maximum fire flows as well as maximum residual head pressures under low flow conditions.

The reticulation should consist predominantly of a branched and looped main feeder reticulation systems consisting of 160mm diameter water lines PVC-U Class 12 and a minimum of 75mm or 110mm diameter looped PVC-U pipe Class 12 Water Reticulation systems for the industrial development in accordance with SANS 966: 1998 Part 1 specifications and laid in accordance with SANS 1200 LB.

The completed Water Reticulation will be tested in accordance with SANS 1200 L. unless otherwise dictated by the Fire Consultant, the fire hydrants will be the pedestal type and the maximum spacing of the fire hydrants will be 90m in accordance with SANS 0900 - 1972.

▪ **Foulsewer Reticulation**

The Foulsewer System of the proposed development will be connected to the municipal system to the existing 300mm diameter sewer near the north-eastern corner of the site.

The gravity sewers will mainly consist of 160mm diameter Class 400 kPa PVC-U pipes: SANS 1601 Type 1 specification to convey the minimum and peak wet weather flows of the development to the proposed private sewer pump station near the northern part of the site.

The sewer pumping main from the private pump station will consist of a 160mm diameter PVC-U Class 9 SANS 966 pipe and will convey the sewer effluent to the mentioned 300mm municipal main.

Considering the topography of the site, it should be possible to lay the pumping main in this development with a very flat gradient to fall towards the municipal sewer line far as practical possible to limit the risk of pollution in case of a break down.

The sewer pumps (duty and standby pumps to alternate) will be installed in an 1800mm diameter precast concrete pump chamber. All precast dolomitic concrete elements to conform to SANS 677, SANS 1294 and SANS 1200 GE specifications. The sewer pump station shall also be provided with an emergency storage facility.

The gravity and pumping systems will have to be designed to accommodate the required self-cleansing velocity of more than 0,75 m/s and the applicable peak wet weather flows.

The inlet to the underground pump station shall be designed with a screening manhole which will remove most material that could interfere with the effective working of the sewer pumps and will not get easily blocked like a conventional screen, thus avoiding excessive maintenance on the pumping system.

All main internal gravity sewers and NMBM sewer pipes and manholes have to be constructed in accordance with SANS 1200 LD, SANS 1200 LB and Municipal Standards and Specifications.

The Draft Scoping Document which was compiled for all of the technical aspects of proposed development has been provided in **Appendix G3**.

**It was advised that two (2) underground diesel tanks will also be constructed as part of the proposed development. This has however not been mentioned in the Draft Scoping Document which was compiled for all of the technical aspects of the proposed development (Appendix G3). It was advised that the above-mentioned diesel tanks will be constructed just north of the proposed new entrance and will have a combined capacity of approximately 70 000 litres (ℓ).*

3. BRIEF DESCRIPTION OF THE RECEIVING ENVIRONMENT

The study site is located on Erf 1092 of the property Redhouse, at Perseverance in Port Elizabeth, Nelson Mandela Bay Metropolitan Municipality (NMBMM) in the Eastern Cape Province (GPS Co-ordinate: 33° 50' 3.960" S; 25° 32' 15.737" E). The study site is a 146 000m² undeveloped erf situated approximately 15km north-west of the city of Port Elizabeth and roughly 7 km south-east of the town of Despatch. The site is however located within an industrial area. As previously mentioned, the proposed project site is in close proximity to an existing SPAR Distribution Centre in Kohler Road and makes provision for future expansion according to the SPAR 20 year expansion plan. In addition, the proposed project site will be accessed primarily via Kohler Road which will need to be extended as part of the proposed development.

A photograph showing the typical character of the proposed project site is provided in **Figure 4** below.



Figure 4: Typical character of the proposed project site

A Site Locality Map for the proposed development is provided in **Figure 5** below. Additionally, a site locality map showing the zoning of the proposed project site has also been provided in **Figure 6** below.

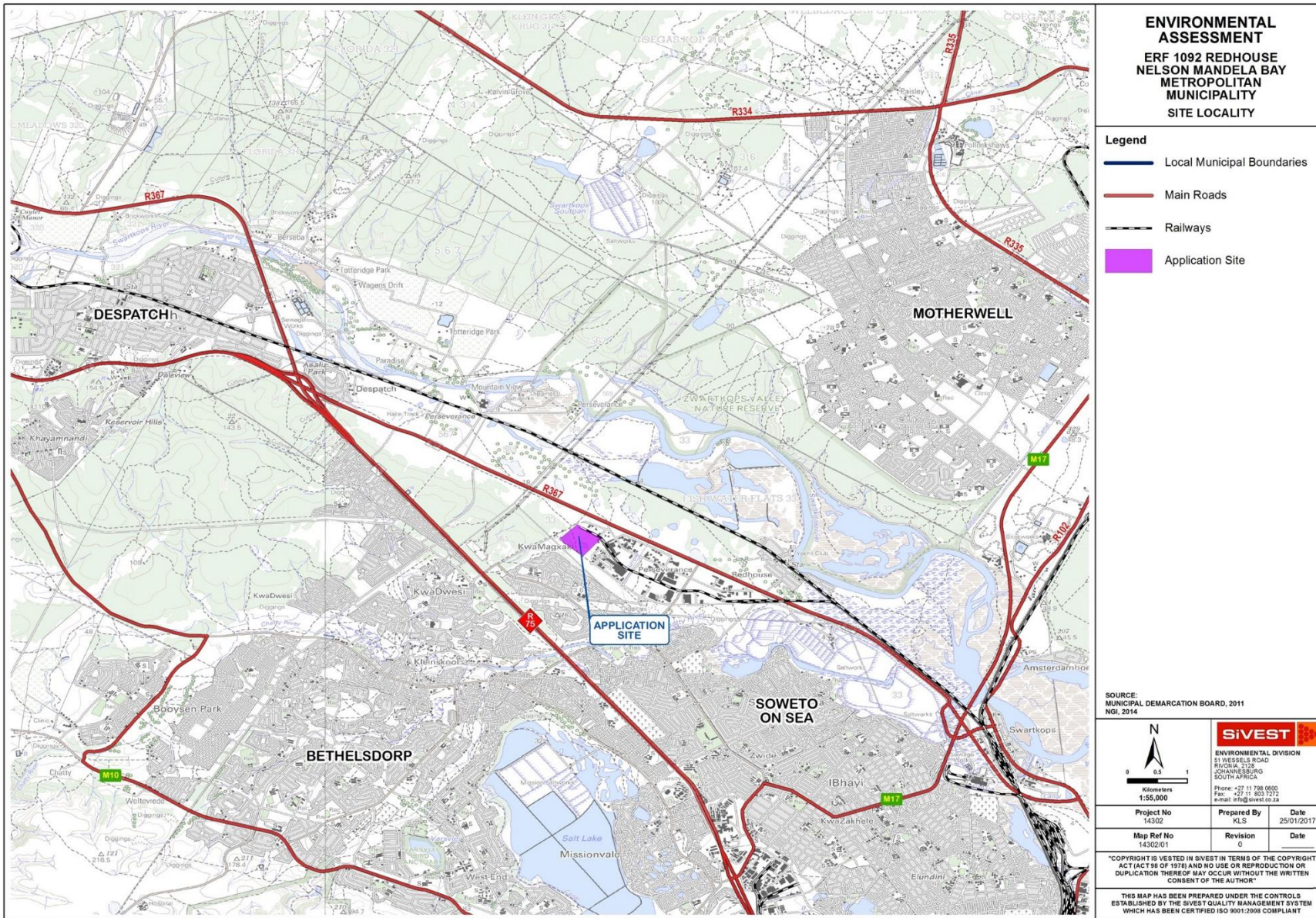


Figure 5: Site Locality Map



Figure 6: Site Locality Map showing the zoning of the proposed project site

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3.1 Geology and Palaeontology

With regards to geology, it was found that the study area is mainly underlain by Cretaceous aged sedimentary rocks of the Sundays River Formation, Uitenhage Group and Tertiary to Quaternary aged Intermediate and Low Level Fluvial Gravel of the Swartkops River (**Figure 7**). These Cretaceous to Quaternary aged sedimentary rocks weather into very clay rich soils that characterize the study area, with very high groundwater levels in the gravel beds.

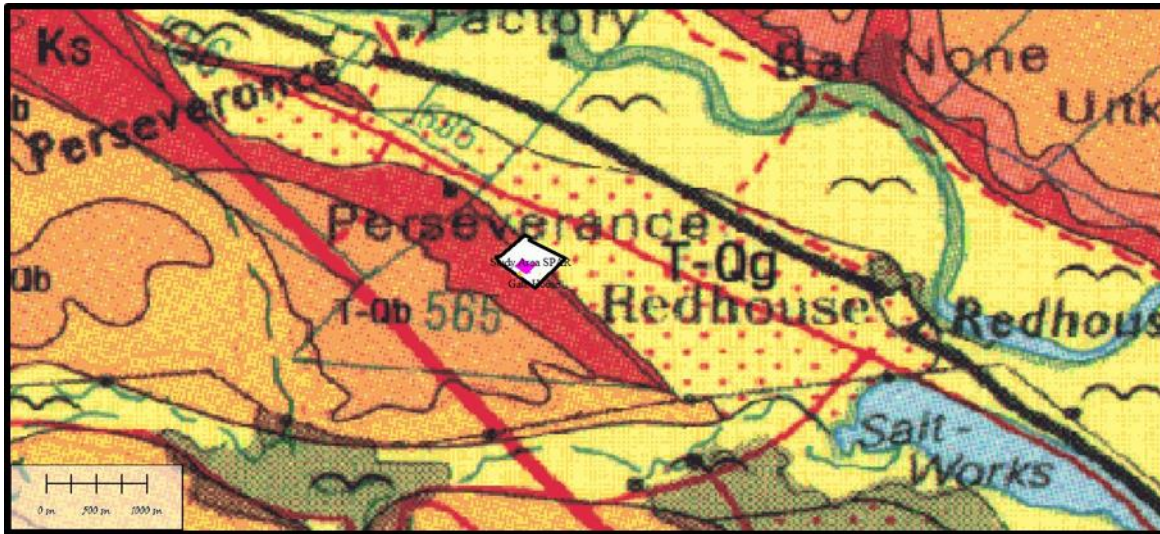


Figure 7: Geology underlying the development is mainly Cretaceous aged Sundays River mudstone (Ks) and Tertiary to Quaternary aged fluvial gravels (T-Qg)

It should be noted that a desktop Palaeontology Impact Assessment (PIA) was undertaken as part of the Heritage Impact Assessment (HIA). The desktop PIA subsequently indicated that the development footprint of the study area is underlain by the Cretaceous aged Sundays River and Kirkwood Formations of the Uitenhage Group. The Palaeontological sensitivity of these areas is rated as very high. It was thus recommended that a full EIA level PIA be conducted in order to assess the value and prominence of fossils in the development area and the effect of the proposed development on the palaeontological heritage. In light of the above, a full EIA level PIA was subsequently undertaken and is included in the report. The EIA level PIA forms part of the HIA and complies with the requirements of the South African National Heritage Resource Act No 25 of 1999. A “Chance Find Protocol” report for the chance find of fossils has also been compiled and forms part of the EIA level PIA study.

A map showing the Palaeontological Sensitivity of the project site is provided in **Figure 8** below.

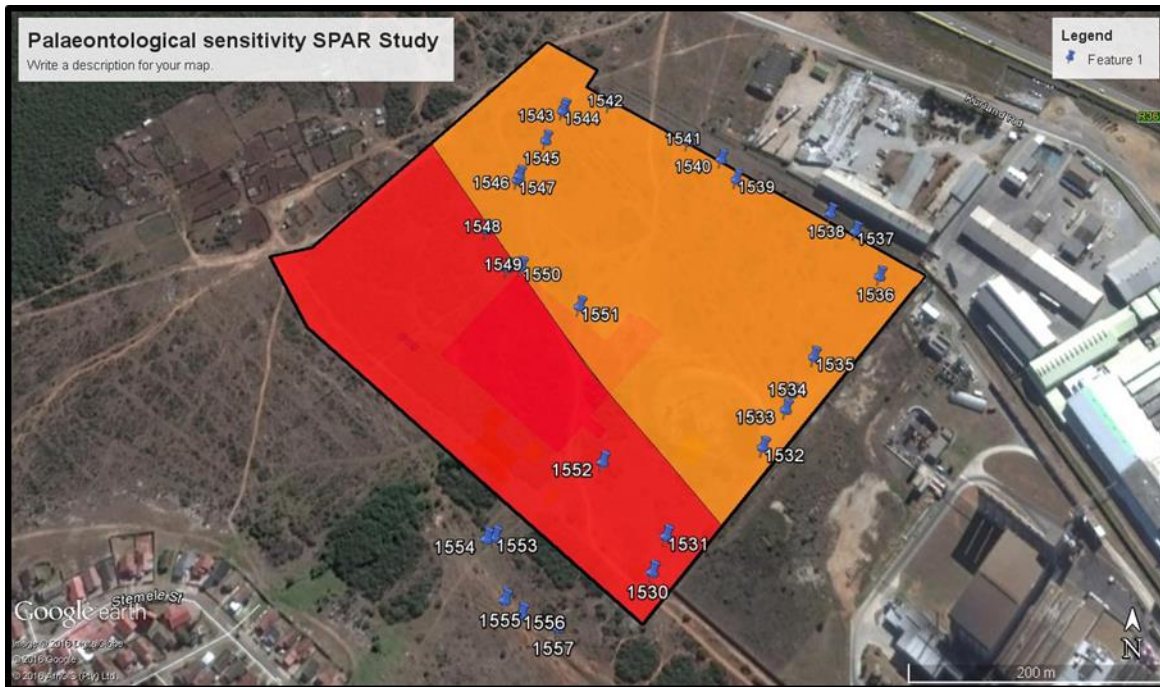


Figure 8: Map showing the Palaeontological Sensitivity of the project site

Legend:

- Very High Palaeontological sensitivity / vulnerability**
- High Palaeontological sensitivity / vulnerability**

The EIA level PIA found that several possible mineralized (expected to be “fossilized”) bones occur with hundreds of clearly defined much younger bones in the study site that seems to be used as a dumping site by local inhabitants of the area. In addition, a Very High Palaeontological sensitivity is allocated to areas underlain by the Fossiliferous Cretaceous aged marine deposits of the Sundays River Formation and a High Palaeontological sensitivity to areas underlain Low Level Gravels of Tertiary to Quaternary age. Although suspiciously fossilsiferous, bone material found associated with Tertiary aged gravels might be related to recent (1968-69) flooding in the area and the HIA took note of this fact. Despite the presence of the above-mentioned paleontologically sensitive areas, no fatal flaws have been identified from a palaeontology perspective and no significant legislative implications are therefore anticipated.

3.2 Study Area Vegetation Unit

According to Mucina and Rutherford (2006), the study site for the proposed development falls within the Albany Thicket Biome. Going into finer detail, vegetation units are classified which contain a set of general but more local biophysical characteristics as opposed to the entire Biome. The study site can be found within the Sundays Thicket vegetation unit.

The vegetation and landscape features of the Sundays Thicket vegetation unit are characterised by undulating plains, low mountains and foothills covered with tall, dense thicket, where trees, shrubs and succulents are common, with many spinescent species. The transition between lower and upper canopies is obscured by the presence of a wide variety of lianas. The local dominance of *Portulacaria afra* increases and the relative abundance of woody species present decreases with increasing aridity. There is considerable structural heterogeneity within this vegetation unit.

The geology and soils of the vegetation unit are mostly deep (>1m) red, loamy to clayey soils derived from Sundays River and Kirkwood Formations (Mesozoic Uitenhage Group) in the south. In the Zuurberg Mountains, soils are more sandy and nutrient poor and derived from the Bokkeveld and Witteberg Groups (Cape Supergroup). In the inland region of the Sundays River, the soils are derived from Ecca Group shales and mudstones, and are heavy due to high clay content. Fc land type dominates the area, followed by Ae.

The climate of the area is characterised by non-seasonal rainfall with slight optima in March and October/November. Mean Annual Precipitation (MAP) ranges from about 190mm in the northwest to 480mm in the southeast on the coast near Port Elizabeth. The coefficient of variation in MAP is 29-38%, increasing with distance inland in a north-westerly direction. The incidence of frost is 8 days, but ranging widely from 3 days near the coast in the southeast to more than 24 days of frost per year in the more inland sites on the north west. Mean monthly maximum temperatures for Uitenhage are 36.9° C for February and minimum temperatures for Uitenhage are 1.3° C for July.

A vegetation unit map has been provided in Figure 9 below.

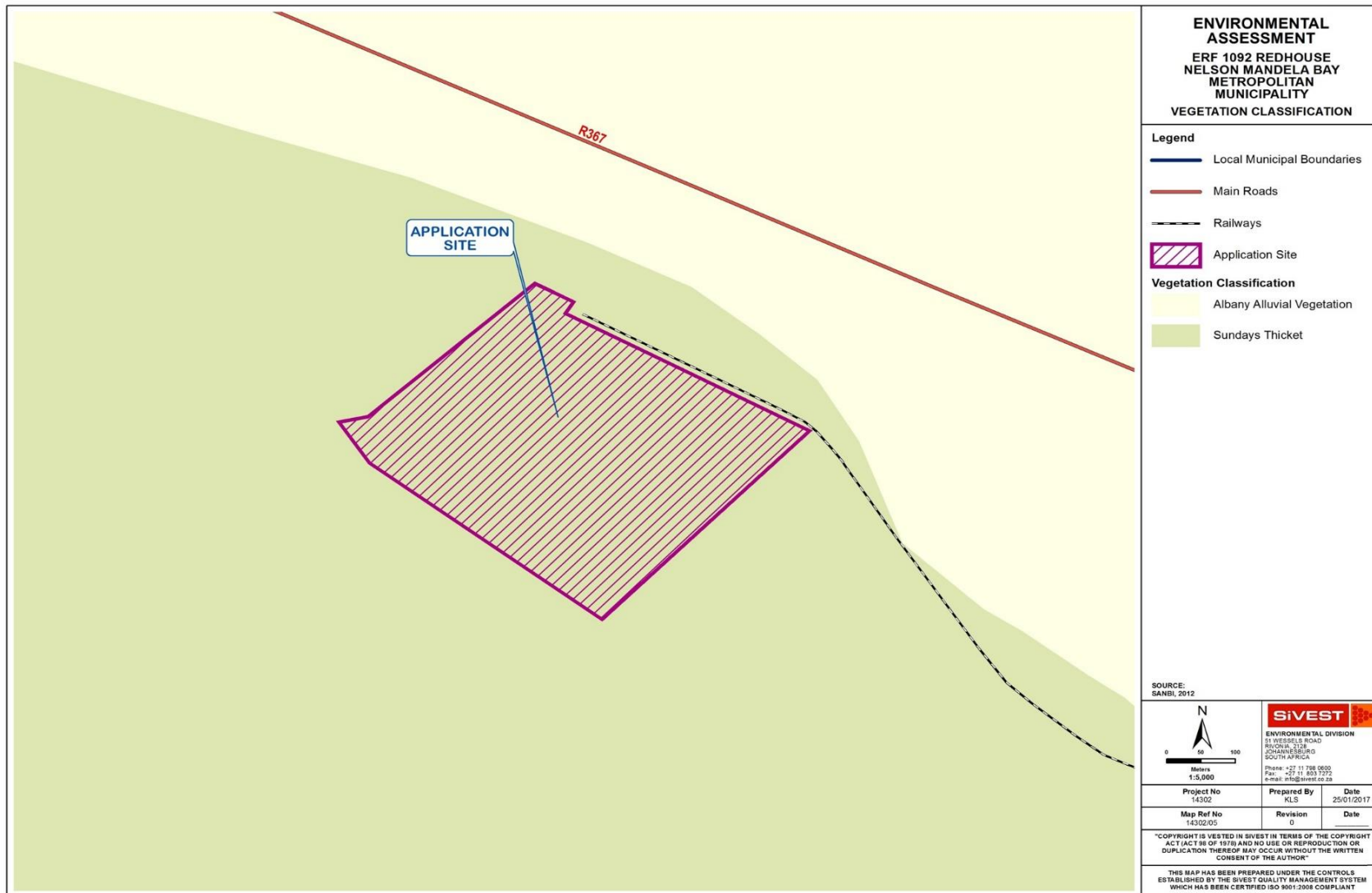


Figure 9: Vegetation Unit Map

3.3 Study Site Habitats

According to the biodiversity specialist, three (3) habitat units can be found within the boundaries of the proposed project site, namely Degraded Sundays thicket, Transformed habitat and Wetland Habitat. Limited areas of Sundays Thicket remain, and the habitat integrity has been degraded by land uses such as intensive livestock grazing and vegetation clearance. The Wetland habitat unit has been severely degraded by dumping of rubble and discharge from urban storm water runoff. In addition, the Transformed habitat unit has been severely degraded by vegetation clearance, rubble dumping, edge effects associated with industrial activities, alien floral invasion and subsistence agriculture.



Figure 10: Typical views of the proposed project site showing that the disturbed / degraded nature of the site as a result of land uses such as vegetation clearance, waste and rubble dumping. In addition, the surrounding existing industrial development is also visible.

A map showing the habitat units encountered within the study area during the biodiversity specialist's site visit is provided in **Figure 11** below.

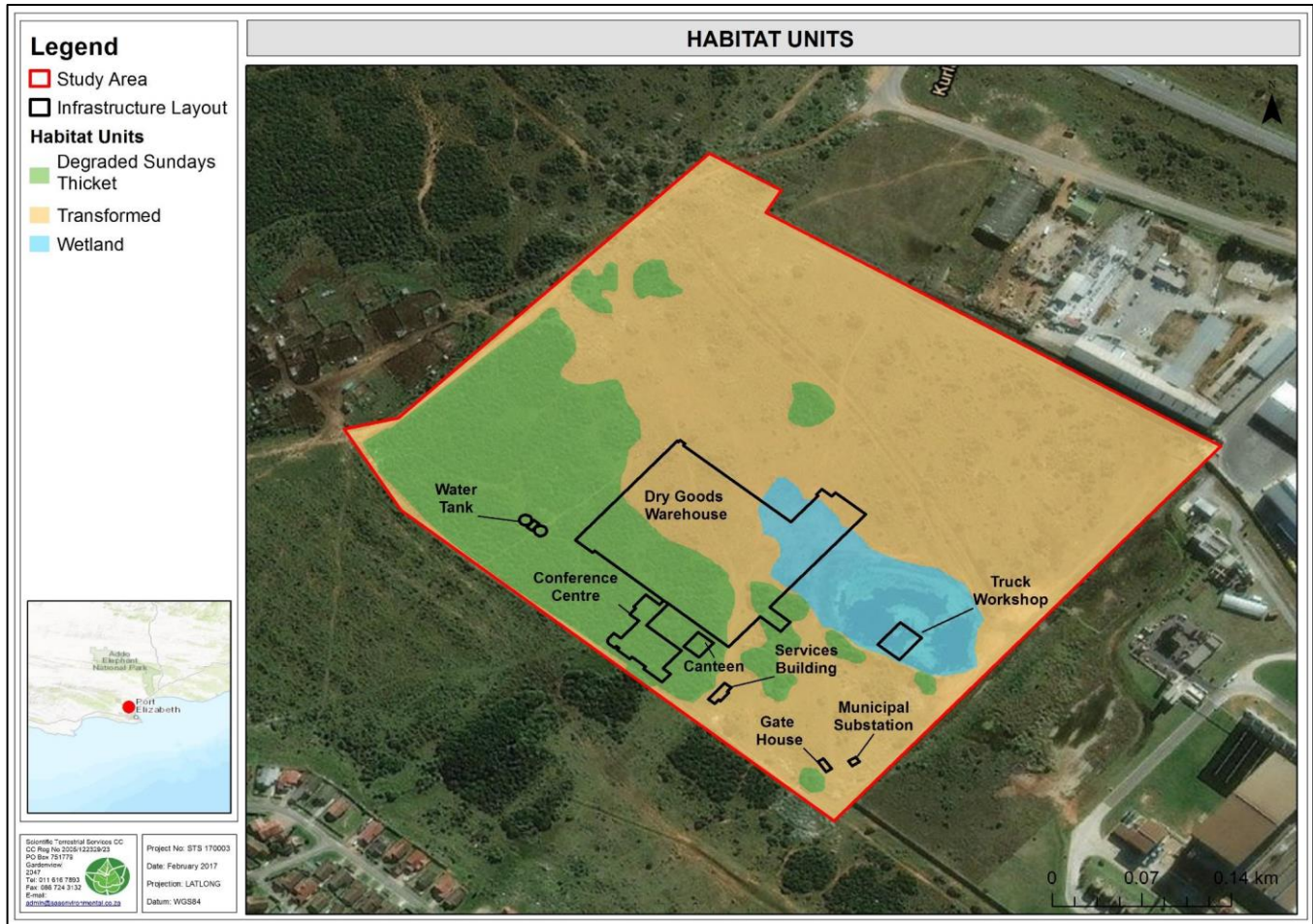


Figure 11: Map showing the habitat units encountered within the study area during the biodiversity specialist’s site visit

It should be noted the proposed project site is not situated within a CBA, ESA or riverine process area in terms of the NMBM’s Bioregional Plan (2015). The proposed project site is however located within 5 km of a Formal Protected Area, namely the Swartkops Valley Local Authority Nature Reserve.

Site locality maps indicating the sensitive and projected areas identified within close proximity to the proposed project site have been provided in Figure 12 and Figure 13 below respectively.



Figure 12: Site locality map indicating the sensitive areas identified within close proximity to the proposed project site

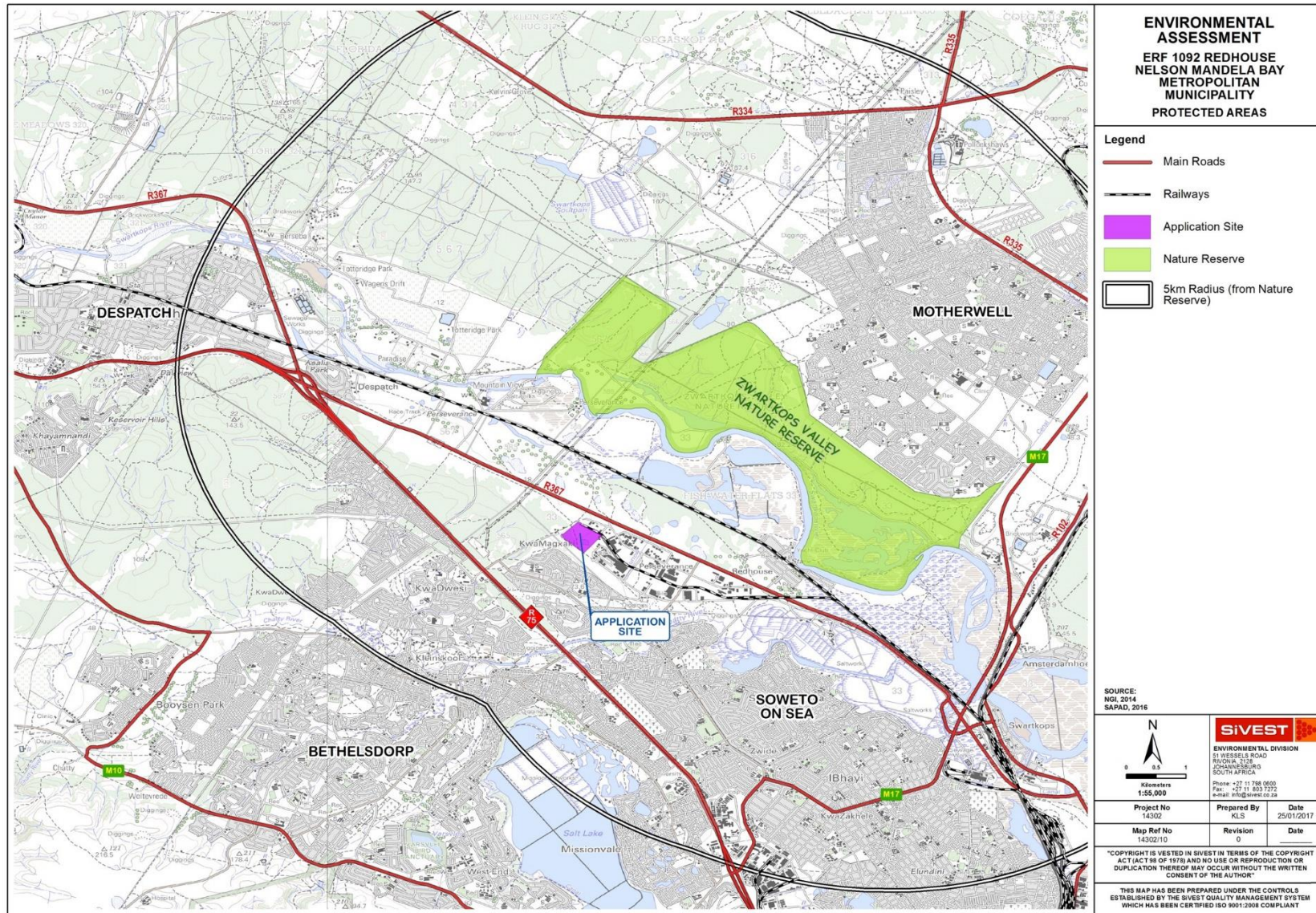


Figure 13: Site locality map indicating the protected areas identified within close proximity to the proposed project site

3.4 Freshwater Habitat

No rivers or stream traverse the study site. The study site is however situated between two rivers located some distance away to the north and south. More specifically, the study site can be found approximately 1.6km to the south of the Swartkops River, and approximately 1.5km to the north of the Chatty River (NFEPA, 2011). It should be noted that a surface water feature can be found within the study site. According to the Surface Water Assessment, the above-mentioned surface water feature has been identified as a depression wetland (**Figure 14**). It should be noted that no other wetlands can be found within a 500m radius of the study site. The identified depression wetland was measured to be 1.1 hectares in extent, with a perimeter of 482m. The wetland is considered ecological important at a desktop level due to the classification of the wetland as a Wetland FEPA and part of a wetland cluster according to the NFEPA (2011) database. As the wetland will be lost, no buffer zone was implemented.



Figure 14: Typical view of the depression wetland which was identified within the project site and delineated. This wetland has been severely degraded by land uses such as dumping of rubble / waste and discharge from urban storm water runoff.

A site locality map indicating the delineated depression wetland found within the proposed project site is provided in **Figure 15** below.



Figure 15: Site locality map indicating the delineated depression wetland found within the proposed project site

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The PES of the wetland was assessed to fall within a Class D with a score of 4.36 indicating that the wetland is largely modified (40-60% modification). Factors identified contributing to the degraded hydrological status at a catchment level included increased surface run-off from the surrounding catchment (most notably stormwater outlets from the KwaMagxaki residential area to the south, and reduced surface roughness). Additionally, at a site specific level, changes to the water distribution and retention within the wetland were noted as a result of changes in surface roughness (including removal of vegetation, establishment of dirt roads and overgrazing) and dumping. Furthermore, excavation of furrows to divert water out of the wetland were also identified to reduce the retention ability of the wetland. From a vegetation perspective, contributing factors affecting the ecological state included the influx of sediment from the stormwater outlets, infilling of rubble material, deposition of litter and other substances in the wetland, as well as overgrazing from cattle due to subsistence agriculture in the area.

With regards to the potential wetland ecosystems services provided, the depression wetland scored highest in terms of sediment trapping and toxicant removal followed closely by phosphate trapping and nitrate removal. The scores, however, only scored to a moderate level. Other potential wetland ecosystem services which could potentially be provided which scored to a lesser degree included (in descending order) water supply for human use, erosion control, flood attenuation, streamflow regulation, maintenance of biodiversity and, tourism and recreation. Overall, the wetland ecosystem services scored to a moderate level for those which scored highest. All other wetland ecosystem services scored fairly low. This was mainly due to the largely degraded present ecological state of the wetland.

The EISC for the depression wetland was determined. The results showed that the depression wetland was categorised as a Class C (Moderate). It was noted that during the site visit, the only faunal activity observed included small rodents on the study site. However, whilst little to no activity was observed at the time that the fieldwork was undertaken, avi-faunal and amphibian species may well frequent the wetland at various stages of the day, and later (seasonally) in the year. Additionally, the national wetland FEPA status, the status of the wetland vegetation type as Endangered at a National (Mucina & Rutherford, 2006) and District level (NMBMM, 2010) raised the ecological importance of the wetland.

3.4.1 Wetland Offset Plan

It is understood that due to limited space (based on the entire project and additional future phases to be constructed), the current layout and project components cannot be altered such that the proposed development can avoid the identified depression wetland. As a result, the proposed development will need to involve the infill of the wetland in order to facilitate construction of the required components and attenuation ponds. Ultimately, the wetland will need to be destroyed. In light of the above, the only way to permit the loss of the depression wetland is to compile and implement a suitable wetland offset plan that is acceptable and authorized by DWS and DEDEA. As such, a wetland offset plan is being put in place and will be implemented in order to ensure that there no “net-loss” of the wetlands in the local area. The wetland offset plan is subsequently being compiled by a suitably qualified wetland specialist for approval by the relevant environmental and water authorities. The wetland offset plan is being undertaken in accordance with the Wetland Offset Guidelines (Macfarlane *et al.*, 2016). Appropriate offsets as determined by the wetland offset plan will be implemented.

Based on correspondence from DEDEA, following an environmental pre-application meeting held on the 23rd of March 2017, it has been confirmed that DEDEA are favourable to the process of issuing an EA (pending satisfactory assessment of the environmental authorisation application) with conditional approval such that the conditions can be assessed by DWS in the processing of the Water Use License (WUL) application. The goal of the wetland offset will be to protect intact wetlands or alternatively rehabilitate similar depression wetlands within the same local catchment should no intact wetlands be identified. Six (6) potential wetland offset sites have been identified that are within a 2km radius of the wetland to be lost on the study site. This is shown in **Figure 16** below.



Figure 16. Potential Wetland Offset Rehabilitation Sites numbered 1 to 6. Study Site outlined in Blue.

Through the wetland offset process, the relevant stakeholders will be engaged to assist in identifying the most suitable site at a stakeholder workshop. The details will be included in the wetland offset plan to be approved by the DWS in the WULA process. The WULA process will be undertaken in accordance with **Chapter 4 Part 1 Section 21** of the National Water Act, 1998 (Act No. 36 of 1998) whereby the following water uses will be applied for:

- d) Impeding or diverting the flow of water in a watercourse;
- j) Altering the bed, banks, course or characteristics of a watercourse.

As the wetland offset plan process is currently underway and will be submitted as part of the WULA process, the wetland offset plan will not accompany the Basic Assessment Report (BAR).

The ultimate responsibility of the management of the wetland offset will be the SPAR Group (Ltd).

4 EXPERTISE OF ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

The proposed development requires Environmental Authorisation (EA) from the Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (DEDEA). However, the local municipality (i.e. NMBMM) has also been consulted. The BA for the proposed development has been carried out under the 2014 Environmental Impact Assessment (EIA) Regulations which were promulgated in December 2014 (Government Gazette No. 38282 of the 4th of December 2014) embodied by the National Environmental Management Act (NEMA) (Act 107 of 1998) as amended. In terms of these regulations, a BA is required for the proposed development. All relevant legislations and guidelines have been consulted during the EIA process and have been complied with at all times.

SiVEST has considerable experience in the undertaking of BAs. Staff and specialists who have worked on this project and contributed to the compilation of this Final Basic Assessment Report (FBAR) are detailed in **Table 2** below.

Table 2: Environmental Consultants

Name and Organisation	Role
Andrea Gibb – SiVEST	Project Manager
Stephan Jacobs–SiVEST	Project Leader / Environmental Consultant
Kerry Schwartz –SiVEST	GIS Specialist
Hlengiwe Ntuli– SiVEST	Public Participation
Emile van der Westhuizen – Scientific Aquatic Services (SAS)	Biodiversity
Shaun Taylor – SiVEST	Surface Water and Wetlands
Wouter Fourie – PGS Heritage	Heritage
Elize Butler – Banzai Environmental	Palaeontological Desktop Assessment (part of Heritage Impact Assessment)
Gideon Groenewald	EIA Level Palaeontological Impact Assessment

5 AUTHORITY CONSULTATION

The Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (DEDEA) is the competent authority for this BA application. The Department of Water and Sanitation (DWS) have however also been consulted due to the fact that a wetland offset plan is being undertaken. The following consultation has subsequently taken place with DEDEA:

- A representative from SiVEST met with the EIM Assistant Director for the Cacadu Region (i.e. Mr. Andries Struwig) at the DEDEA offices in Port Elizabeth on the 17th of January 2017 in order to confirm whether there were any other previous applications for Environmental Authorisation (EA) on the project site / property. Mr. Struwig subsequently informed the representative from SiVEST that there were no other applications for EA on the project site / property to his knowledge.

- SiVEST sent Mr. Andries Struwig an email on the 31st of January 2017 in order to obtain written confirmation regarding other applications for EA on the project site / property. Mr. Struwig subsequently responded on the 2nd of February 2017 and confirmed that his office has not processed any previous application for EA relating to the property. A copy of the email which SiVEST sent to Mr. Struwig on the 31st of January 2017, as well as the subsequent response received from Mr. Struwig on the 2nd of February 2017, is included in **Appendix G1**.
- SiVEST sent Mr. Andries Struwig a pre-application meeting request via email on the 10th of March 2017. SiVEST requested this pre-application meeting in order to confirm an appropriate approach with regards to the BA, WULA and wetland offset strategy processes for the proposed development before commencing. Mr. Struwig did not respond in writing to the pre-application meeting request which was sent to him but rather confirmed his availability via telephone. Copies of the pre-application meeting request which was sent to Mr. Struwig is included in **Appendix G1**.
- SiVEST sent Mr. Struwig a confirmation email for the pre-application meeting which was planned with DEDEA, on the 17th of March 2017. This confirmation email also contained an agenda for the pre-application meeting. Copies of the confirmation email which was sent to Mr. Struwig, as well as the pre-application meeting agenda which was attached to the confirmation email, is included in **Appendix G1**.
- A representative from SiVEST (i.e. Mr. Shaun Taylor) met with Mr. Struwig at the DEDEA offices in Port Elizabeth on the 23rd of March 2017, in order to attend the above-mentioned pre-application meeting for the proposed development.
- Following the pre-application meeting, Mr. Taylor sent Mr. Struwig an email on the 23rd of March 2017 in order to summarise the main points that were discussed and agreed upon during the pre-application meeting and to confirm that these were accurate. Mr. Struwig subsequently replied via email on the 23rd of March 2017 and confirmed that the summary adequately captured the main points / issues discussed. Copies of the email which were sent to Mr. Struwig in order to summarise the main points that were discussed, as well as Mr. Struwig's subsequent response, are included in **Appendix G1**.
- SiVEST also sent representatives from DWS several emails in order to request a pre-application meeting and site visit for the proposed development. Several representatives from DWS responded to these requests. SiVEST subsequently sent another email to representatives from DWS on the 8th of March 2017 in order to confirm the meeting request for the 22nd of March 2017. A representative from SiVEST (i.e. Mr. Shaun Taylor) met with representatives from DWS in Port Elizabeth on the 22nd of March 2017 in order to attend the above-mentioned pre-application meeting and site visit. Copies of all consultation and/or correspondence undertaken with representatives from DWS are included in **Appendix G2**.
- SiVEST submitted the BA Application Form for the proposed development to DEDEA on the 18th of April 2017. DEDEA sent SiVEST an email on the 20th of April 2017 in order to confirm receipt of the above-mentioned application form, as well as to inform SiVEST of the subsequent amendments to the 2014 EIA Regulations. This email mainly served to advise SiVEST to scrutinise the application form which was submitted in order to determine whether the amendments would result in any changes to the content of the application form and to inform the Department accordingly. A copy of the email which was sent to SiVEST in order to confirm receipt of the application form and to inform SiVEST of the subsequent amendments to the 2014 EIA Regulations, is provided in **Appendix G1**.
- The Draft Basic Assessment Report (DBAR) was submitted to DEDEA on the 26th of April 2017. DEDEA subsequently acknowledged the receipt of the above-mentioned BA Application Form and DBAR on the 5th of May 2017 respectively and the following reference number was allocated: **ECM1/C/LN1&3/M/26-2017**.

Copies of the letters from DEDEA acknowledging the receipt of the BA Application Form and DBAR are provided in **Appendix G1** respectively.

- Following the submission of the DBAR, DEDEA sent SiVEST a letter on the 8th of June 2017 in order to provide comments with regards to the DBAR which was submitted. A copy of this letter is provided in **Appendix G1. Table 3** below provides details as to how this FBAR has addressed the comments provided by DEDEA with regards to the DBAR. For further details, refer to **Appendix G1** for the DEDEA Acceptance Letter.

Table 3: Compliance with the DEDEA comments and/or requirements detailed in the DBAR Comment letter

Comments received from DEDEA / Information required	Notes / Comments
<p>The Final Basic Assessment Report (FBAR) must contain all the relevant information and details with regards to the wetland offset plan such as:</p> <ul style="list-style-type: none"> • What will the offset entail - i.e. establishment of a new wetland; rehabilitation of an existing defunct wetland etc.; • Where will such offset be located; • Who will be responsible to manage such offset; and • What policies and procedures are relevant with regard to providing an offset. 	<p>This Final Basic Assessment Report (FBAR) contains all the relevant information and details which have been requested by DEDEA with regards to the wetland offset plan.</p> <p>Please refer to Section 3.4.1 above for more information regarding the proposed wetland offset plan.</p> <p>Specific responses as per each bullet point in DEDEA comments are as follows:</p> <ul style="list-style-type: none"> • One or several intact wetlands (as required) of the same wetland type within a 2km radius of the study site within the same local catchment will be protected or rehabilitated to improve the state of these wetlands should no intact wetlands be identified that can be protected; • within a 2km radius of the study site within the same local catchment; • SPAR Group (Ltd) will be responsible for management of the wetland offset; • A water use license application (WULA) process will be undertaken in order for approval to be obtained to proceed with the wetland offset. The WULA process will be undertaken in accordance with Chapter 4 Part 1 Section 21 of the National Water Act, 1998 (Act No. 36 of 1998) whereby the following water uses will be applied for: <p>c) Impeding or diverting the flow of water in a watercourse;</p>

	<p>i) Altering the bed, banks, course or characteristics of a watercourse.</p> <p>As the wetland offset plan process is currently underway and will be submitted as part of the WULA process, the wetland offset plan will not accompany the Basic Assessment Report (BAR).</p>
<p>Over and above the layout alternative preferred by the client (i.e. the layout that will result in the destruction of the existing wetland on the property), the FBAR must contain and assess an alternative layout that provides for the protection of the wetland inclusive of the 30m buffer zone</p>	<p>The proposed development will not be feasible should it not be possible to infill the wetland.</p> <p>Motivation has been provided in the FBAR with regards to why no layout alternatives are being considered and/or assessed. Please refer to Section 2.1 in this FBAR for more information.</p> <p>Motivation has also been provided with regards to why the existing wetland on the project site cannot be avoided and ultimately needs to be infilled and lost. Please refer to Section 3.4.1 in this FBAR for more information.</p>

As can be seen from the table above, it is SiVEST's opinion that all of DEDEA's comments with regards to the DBAR have been adequately addressed in this FBAR.

The following list summarises other authorities which were informed as part of the BA Process:

National / Provincial Authorities

- Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (DEDEA)
- National Department of Water & Sanitation (DWS)
- National Department of Agriculture, Forestry & Fisheries (DAFF)

Local Authorities

- Nelson Mandela Bay Metropolitan Municipality (NMBMM)
- Cllr Mbulelo Gidane (Ward Councilor for Ward 30)

Parastatals / Organs of State

- South African National Roads Agency Limited (SANRAL)
- Telkom SA (Ltd)
- Eskom
- South African Heritage Resource Agency (SAHRA)
- Eastern Cape Provincial Heritage Resource Authority (ECPHRA)
- SA Civil Aviation Authority (SA CAA)
- Agri Eastern Cape (formerly known as the Eastern Province Agricultural Union)

- Air Traffic Navigation Service (ATNS)

NGO's / Other Entities

- Birdlife South Africa
- Endangered Wildlife Trust (EWT)
- Wildlife and Environment Society of South Africa (WESSA)

6 BASIC ASSESSMENT REPORT STRUCTURE

- **Section A** describes the activity and technical project components, including the proposed alternatives, location and physical size of the activity. This section also provides an activity motivation by describing the need and desirability for the proposed project. Section A expands on the legal ramifications applicable to the project and describes relevant development strategies and guidelines. Finally the section explains the infrastructural requirements of the proposed project such as waste, effluent, emission water use and energy efficiency.
- **Section B** provides a description of the site and region in which the proposed development is intended to be located. Although the chapter provides a broad overview of the region, it is also specific to the application.
- **Section C** describes the Public Participation Process (PPP) undertaken during the Basic Assessment (BA) and tables issues and concerns raised by Interested and Affected Parties (I&APs).
- **Section D** identifies the resource use and process details associated with the proposed development. These include details pertaining to Waste, Effluent and Emission Management, Water Use, Power Supply and Energy Efficiency.
- **Section E** identifies potential issues associated with the proposed project by outlining the impacts that may result from the planning, design, construction, operational, decommissioning and closure phases. **Section D** also provides a description of the mitigation and management measures for each potential impact and outlines the recommendations of the Environmental Assessment Practitioner (EAP). The section concludes with an Environmental Impact Statement which summarises the impacts that the proposed development may have on the environment.
- **Section F** outlines the relevant appendices which must be attached as part of the Draft Basic Assessment Report (DBAR).

7 ASSUMPTIONS AND LIMITATIONS

The following assumptions and limitations have been taken into account when compiling this DBAR:

- It is assumed that all technical information provided by SPAR is technically acceptable and accurate;
- The proposed development is still in the planning stages and therefore some of the project specific technical details are not available at present;
- The following assumptions, uncertainties and gaps in knowledge were encountered by various specialist:
 - **Biodiversity**

- The ecological assessment is confined to the study area, and does not include the neighbouring and adjacent properties. These were however considered as part of the desktop assessment.
 - With ecology being dynamic and complex, some aspects (some of which may be important) may have been overlooked. It is, however, expected that most floral and faunal communities have been accurately assessed and considered.
 - Due to the nature and habits of most faunal taxa and the high level of surrounding anthropogenic activities, it is unlikely that all species would have been observed during a site assessment of limited duration. Therefore, site observations were compared with literature studies where necessary.
 - The data presented in this report are based on one site visit, undertaken in January 2017. A more accurate assessment would require that assessments take place in all seasons of the year. However, on-site data was significantly augmented with all available desktop data, as well as previous studies conducted in the area, and the findings of this assessment are considered to be an accurate reflection of the ecological characteristics of the study area.
- **Surface Water**
- A Global Positioning System (GPS) device was used to groundtruth any identified wetlands, as well as for delineation purposes. The GPS is expected to be accurate from 5m up to 15m depending on meteorological conditions.
 - The site visit was undertaken on the 17th January 2017. Different wetland vegetation can grow at specific times / seasons of the year depending on climate. As such, some hydrophytic wetland vegetation species may not have been present at the time of the assessment since January is considered one of the driest months for the area. Most rain is most frequent during August. Vegetation limitations therefore apply to this assessment given the short term once-off nature of the assessment. The assessment should therefore not be undertaken to be a fully comprehensive study on wetland and riparian vegetation species occurrence within the surface water resources.
 - This study has focused on the delineation of wetlands to be affected by the layout of the proposed development on the study site. Identification and delineation of surface water resources in the wider area outside of the proposed development area was not undertaken.
 - This study is limited to providing a surface water delineation, present ecological state determination, ecosystem services assessment, environmental importance and sensitivity classifications and, an impact assessment. No other assessments were undertaken or form part of this study. Aquatic studies of fish, invertebrates, amphibians etc. have not been included in this report. Nor have hydrological, floodlines or groundwater studies been included.
 - The geomorphological component of the Present Ecological Status (PES) was not assessed in this study for the endorheic depression wetland. The WET Health methodology (**Macfarlane et al., 2009**) focuses on wetlands that are connected to the drainage network in some way, and it therefore excludes endorheic pans. As such, this component cannot be evaluated until a methodology exists for this purpose.
 - Use of database information for the desktop assessment included the National Freshwater Ecosystem Priority Areas (**NFEPA, 2011**) database. This database is a national level database and some smaller surface water resources may not be contained in the database. Additionally, mainly permanently saturated wetlands are included in the database. Therefore, wetlands with

seasonal and temporary saturation cycles may not be included. The fieldwork component was included in the assessment to verify the desktop database information in order to address these shortcomings.

- **Heritage**

- Not detracting in any way from the comprehensiveness of the fieldwork undertaken, it is necessary to realise that the heritage resources located during the fieldwork do not necessarily represent all the possible heritage resources present within the development area. Various factors account for this, including the subterranean nature of some archaeological sites. As such, should any heritage features and/or objects not included in the present inventory be located or observed, a heritage specialist must immediately be contacted.
- It should be noted that during the field survey, the team encountered extremely dense thicket vegetation over the western portion of the study area. The two isolated stone tools were both found in disturbed areas within this thicket vegetation.

- **Palaeontology**

- The scope of the phase 1 Investigation included an on-site investigation to assess the identified palaeontological sensitive areas within the development footprint/study area rather than formal palaeontological collection. The investigation focused on the bedrock exposure where excavations would most probably require palaeontological monitoring.
- The results of the field investigation are used to predict the potential of buried fossil heritage within the development footprint. In some investigations, this involves the examination of similar accessible bedrock exposures, such as road cuttings and quarries, along roads that run parallel to or across the development footprint.

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section? NO ✓

If YES, please complete form XX for each specialist thus appointed:

Any specialist reports must be contained in Appendix D.

Biodiversity, Surface Water, Heritage, and Palaeontology Specialists have been appointed by SiVEST to undertake specialist assessments for the Basic Assessment (BA) process. The Biodiversity, Surface Water, Heritage and Palaeontology Specialist Reports are provided in **Appendix D1, Appendix D2, Appendix D3 and Appendix D4** respectively.

1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail

Due to the growing market demands, the SPAR Group (Ltd) (hereafter referred to as 'SPAR') are proposing to construct a new SPAR Distribution Centre on Erf 1092 at Redhouse in Perseverance, Port Elizabeth, Nelson Mandela Bay Metropolitan Municipality (NMBMM) in the Eastern Cape Province (hereafter referred to as the 'proposed development'). The proposed development will entail the construction of a self-sustainable facility which includes a new Dry Goods Warehouse with an internal Returns Area and Workshop/Charging Bay. In addition, the proposed development will also include the construction of the following:

- Conference Facility (including Entrance Foyer, IT Centre, Training Rooms, Bar Facility, Conference Ablutions & Entertainment Area);
- Security Entrance & Staff Ablution;
- Canteen;
- Guardhouse / Entrance Canopy;
- Truck Workshop & Truck Wash;
- Services Room (accommodating electrical, transformer and generator);
- Municipal Sub-station;
- Truck Entrance & Guard House;
- Fire Pump House;
- Main internal storm water drainage (including paved/concrete/reno mattress overland flow routes, catch pits, manholes and pipework up to outside of the buildings);
- Main internal water reticulation up to the outside of the buildings for operational purposes (including supply to the fire tanks, fire hydrants and fire hose reels which will include the municipal water connection to site, bulk water meter, valves, specials, bends, thrust blocks, bulk water meter and strainer chambers);
- Municipal sewer extension, connection to existing municipal system and main internal sewer drainage system up to the outside of the buildings (including gravity sewer lines, manholes, sewer pump station and pumping main including valve and thrust blocks);

- Paved road and parking area (including layer works, kerbs, storm water drainage, road marking and traffic signs);
- Concrete areas for entrance road and external operational area up to the outside of the buildings (including layer works, joints and storm water drainage);
- Bulk storm water system (including grassed storm water detention ponds, overflow structures, concrete lined channels, catch pits, pipework and connection to municipal system);
- Extension to Kohler road (including the layer-works, kerbing, storm water drainage, traffic signs and road marking); and
- Upgrade of the Kohler/Chelsea Roads intersection (including layer works, storm water drainage, procurement of traffic signals and related ducts and manholes, traffic signs and road marking).

The following information should also be noted:

- The site is undeveloped but is located within an industrial area;
- The site does not fall within any National Threatened Ecosystems;
- The site is within 5 km of a Formal Protected Area – i.e. the Swartkops Valley Local Authority Nature Reserve;
- The site is not within a CBA or riverine process area in terms of the NMBM's Bioregional Plan (2015);
- Pre-transformation vegetation types mapped on the site are Motherwell Karroid Thicket and Sundays Doringveld Thicket (NMBM Bioregional Plan, 2015); and
- The Ecosystem Status of the site is rated as 'endangered' on a metropolitan scape (NMBM Bioregional Plan, 2015).

It is important to note that the proposed development will be constructed in a phased manner. It was advised that construction of the entire proposed development will ultimately be undertaken in four (4) phases over a period of approximately 20 years. The timing of the subsequent phases (2 to 4) will be determined by market forces, as well as SPAR's business requirements and priorities in the future. This may vary from year to year as SPAR assess their development strategy as the need is required. As such, a detailed programme indicating when the above-mentioned phases will be implemented, is not available. It is envisaged that Phase 1 construction activities will be undertaken in 2017 / 2018, while the construction activities related to Phases 2 to 4 will be undertaken at intervals dependent on the growth of the region. Phase 2 related construction activities are expected to be undertaken in the next 5 to 7 years, Phase 3 related construction activities in 10 to 12 years and the final phase (i.e. Phase 4) in 15 to 20 years' time. These timeframes are however not final and may be subject to change as the project progresses. It should be noted that this Environmental Authorisation (EA) will however include all four (4) phases of the proposed development and will ultimately cover the activities related to all four (4) phases.

As mentioned above, the proposed development involves the construction of a new SPAR Distribution Centre, with the purpose of housing the increase in SPAR's operational demands due to national and regional growth. It should be noted that the new project site makes provision for future expansion according to the SPAR 20 year expansion plan. In addition, the project site

is a 146 000m² undeveloped erf and is in close proximity to an existing SPAR Distribution Centre on Kohler Road.

The proposed project site currently belongs to the NMBMM. Ownership of the project site is however in the process of being transferred to SPAR. The drafting of a sale agreement has commenced and will include a number of suspensive conditions, one being EA. The transfer of ownership of the project site will thus only commence (conveyancing) once the suspensive conditions are met and therefore the property will ultimately belong to SPAR. The proposed project site will be accessed primarily via Kohler Road which will need to be extended as part of the proposed development. Additionally, the proposed development will also include the upgrade of the Kohler/Chelsea Roads intersection.

It should be noted that no layout alternatives are being considered and/or assessed with regards to the proposed construction of the new SPAR Distribution Centre. This is due to the fact that the current proposed layout is planned to be carried out in a phased manner and has been achieved through the extensive organising and planning of the space and facilities required by SPAR. Additionally, SPAR are not looking to purchase any other sites as the chosen property is the only site which is considered to be feasible and viable with regards to the construction of the new SPAR Distribution Centre. Therefore the proposed project site is the only site alternative that is being considered with regards to the proposed development. As such, the current layout maximises the site usage, taking into consideration the phasing of the proposed development. The current proposed layout is also considered to be the most cost effective way to establish a facility in order to meet SPAR's current demands, as the topography of the site would result in large, expensive civil works in order to get phase one complete, and then still take into consideration the future phasing. The site currently only has one means of access to the proposed facility, due to the limitations of local infrastructure and the built environment, and therefore the first phase of the development has to be placed within realistic distances of the provided access point. In addition, the land to the north-west of the site (where phase 4 would happen), could potentially be sold off to another developer, which needs to be considered in the current proposal.

2. FEASIBLE AND REASONABLE ALTERNATIVES

“alternatives”, in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

- (a) the property on which or location where it is proposed to undertake the activity;
- (b) the type of activity to be undertaken;
- (c) the design or layout of the activity;
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

Describe alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Paragraphs 3 – 13 below should be completed for each alternative.

As per Chapter 1 of the EIA regulations (2014), feasible and reasonable alternatives are required to be considered during the EIA or BA process. Alternatives are defined at “different means of meeting the general purpose and requirements of the activity” These alternatives may include:

- The property on which or location where it is proposed to undertake the activity;
- The type of activity to be undertaken;
- The design or layout of the activity;
- The technology to be used in the activity;
- The operational aspects of the activity; and
- The option of not implementing the activity.

Each of this alternatives is discussed in relation to the proposed project in the sections below.

The property on which or location where it is proposed to undertake the activity

The chosen property is the only site which is considered to be feasible and viable with regards to the construction of the new SPAR Distribution Centre. SPAR do not own any other premises which can accommodate the proposed development. Therefore the proposed project site is the only site alternative that is being considered with regards to the proposed development.

The type of activity to be undertaken

The needs for the proposed development is specific. The proposed development will involve the construction of a new SPAR Distribution Centre, with the purpose of housing the increase in SPAR’s operational demands due to national and regional growth. It should be noted that the new project site makes provision for future expansion according to the SPAR 20 year expansion plan. Therefore, the type of activity is specific and no alternatives will be considered in this regard.

The design or layout of the activity

No layout alternatives are being considered and/or assessed with regards to the proposed construction of the new SPAR Distribution Centre due to the fact that the current proposed layout is planned to be carried out in a phased manner, and has been achieved through the extensive organising and planning of the space and facilities required by SPAR. The phased construction of the proposed development will ultimately require the entire developable area of the proposed site. The current layout therefore maximises the site usage, taking into consideration the phasing of the proposed development. The current proposed layout is also considered to be the most cost effective way to establish a facility in order to meet SPAR’s

current demands, as the topography of the site would result in large, expensive civil works in order to get phase one complete, and then still take into consideration the future phasing. The site currently only has one means of access to the proposed facility, due to the limitations of local infrastructure and the built environment, and therefore the first phase of the development has to be placed within realistic distances of the provided access point.

Figure 17 below highlights the phasing which is planned to be executed on the site over time and illustrates that the entire site will be used for the proposed development, thereby negating the possibility of alternative layouts.

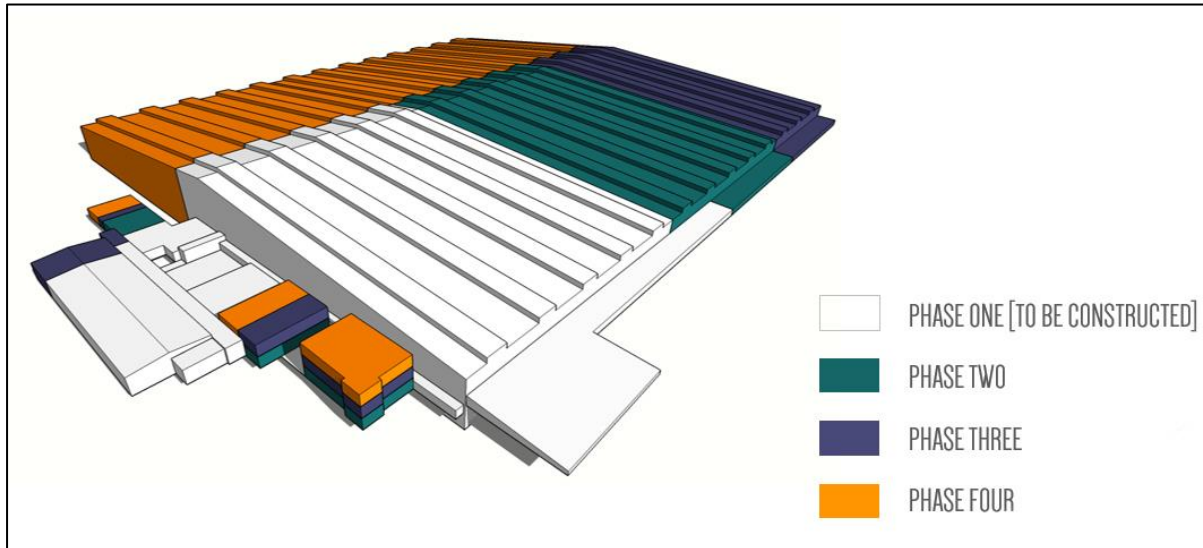


Figure 17: Image illustrating the phasing to be executed on the site over time and why alternative layouts would not be able to accommodate SPAR’s programme requirements in the future.

The technology to be used in the activity

The proposed development will be distribution warehouse. The provision for alternative technology is therefore not applicable.

The operational aspects of the activity

No operational alternatives are applicable for the proposed development as standard operational activities will be undertaken as relevant for each phasing of the proposed development.

The option of not implementing the activity

The “no-go” option is the option of not undertaking the proposed development. The proposed development is being proposed in order to house the increase in SPAR’s operational demands due to national and regional growth. SPAR Eastern Cape has outgrown their current Distribution Centre in Perseverance and therefore need to find a new site to establish a new distribution centre. The new site has to accommodate SPAR’s 20 year expansion plan and must also be in close proximity to the existing Distribution Centre. The proposed project site identified is an undeveloped erf that is located in the same street as SPAR’s

existing Distribution Centre, thus fulfilling their need of having a large site to accommodate their expansion plans as well as being close to the existing Distribution Centre. The proposed development will increase the extent of SPAR's operations within the area, as well as bolster the business development within the area. The proposed development can be considered to be in the best interest of both SPAR, as well as the surrounding local communities, as it has the potential to increase profits for SPAR and contribute to employment opportunities for members of the local communities. Should the "no-go" option be selected, the above mentioned socio-economic benefits would not be realised.

3. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

List alternative sites if applicable.

Latitude (S): **Longitude (E):**

Alternative:

Alternative S1¹ (preferred or only site alternative)

33 °	50'	25°	32'

Alternative S2 (if any)

Alternative S3 (if any)

In the case of linear activities:

Alternative:

Latitude (S): **Longitude (E):**

Alternative S1 (preferred or only route alternative)

- Starting point of the activity
- Middle point of the activity
- End point of the activity

Alternative S2 (if any)

- Starting point of the activity
- Middle point of the activity
- End point of the activity

¹ "Alternative S.." refer to site alternatives.

Alternative S3 (if any)

- Starting point of the activity
- Middle point of the activity
- End point of the activity

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

Alternative:

Alternative A1² (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Size of the activity:

Approx. 146 000m²

or, for linear activities:

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Length of the activity:

Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Size of the site/servitude:

146 000m²

5. SITE ACCESS

Does ready access to the site exist?

NO/

² "Alternative A.." refer to activity, process, technology or other alternatives.

If NO, what is the distance over which a new access road will be built

Approx. 225m

Describe the type of access road planned:

SPAR plan on upgrading the existing gravel track to an asphalt road which will match the existing Kohler Road. As such, the existing Kohler Road will be extended to provide access to the site.

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

6. SITE OR ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.

The site or route plans must indicate the following:

- 6.1 the scale of the plan which must be at least a scale of 1:500;
- 6.2 the property boundaries and numbers of all the properties within 50 metres of the site;
- 6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 6.4 the exact position of each element of the application as well as any other structures on the site;
- 6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 6.6 all trees and shrubs taller than 1.8 metres;
- 6.7 walls and fencing including details of the height and construction material;
- 6.8 servitudes indicating the purpose of the servitude;
- 6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
 - rivers;
 - the 1:100 year flood line (where available or where it is required by DWA);
 - ridges;
 - cultural and historical features;
 - areas with indigenous vegetation (even if it is degraded or invested with alien species);
- 6.9 for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and

6.10 the positions from where photographs of the site were taken.

The following maps have been provided as **Appendix A**:

- A Detailed Site Layout Map;
- A Site Locality Map;
- A Site Locality Map indicating sensitive environments and protected areas;
- A Regional Context Map;
- A Site Locality Map indicating Land Cover;
- A Site Locality Map indicating Topography;
- A Site Locality Map indicating Slope;
- A Site Locality Map Indicating Vegetation; and
- A Site Locality Map Indicating Zoning.

7. SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this form. It must be supplemented with additional photographs of relevant features on the site, if applicable.

Colour photographs taken from the centre of the site in at least the eight major compass directions with a description of each photograph, as well as photographs of relevant features on the site, are attached under **Appendix B**.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

Detailed site plans / facility illustrations for the proposed buildings, infrastructure, roads, bulk storm water, sewage and water reticulation are provided as **Appendix C**.

9. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?

UNKNOWN AT THIS STAGE

What is the expected yearly income that will be generated by or as a result of the activity?

The new Distribution Centre will replace two (2) leased units in Burman Road and Kempston Road. The amount of sales going through the new Distribution Centre will be about R510 million per annum from October 2018. This figure will increase annually depending on volume and inflation growth.

Will the activity contribute to service infrastructure?

YES/

Is the activity a public amenity?

NO/

How many new employment opportunities will be created in the development phase of the activity?

UNKNOWN AT THIS STAGE

It was advised that this is difficult to establish as each contractor will appoint their own number of staff during the construction phase. In addition, Small, Medium and Micro Enterprise (SMME) appointments will only be done by the contractor at time of construction.

What is the expected value of the employment opportunities during the development phase?

UNKNOWN AT THIS STAGE

What percentage of this will accrue to previously disadvantaged individuals?

UNKNOWN AT THIS STAGE

How many permanent new employment opportunities will be created during the operational phase of the activity?

Approximately 10 per annum

What is the expected current value of the employment opportunities during the first 10 years?

R 2.5 million per annum for permanent staff

What percentage of this will accrue to previously disadvantaged individuals?

UNKNOWN AT THIS STAGE

9(b) Need and desirability of the activity

Motivate and explain the need and desirability of the activity (including demand for the activity):

Spar Eastern Cape has outgrown their current Distribution Centre in Perseverance and therefore needed to find a new site to establish a new larger distribution centre. The new site has to accommodate the 20 year expansion plan and also has to be in close proximity to the existing Distribution Centre on Kohler Road. The site identified is a 146 000m² undeveloped erf that is located within the same street as the existing Distribution Centre, thus fulfilling

SPAR's need of having a large site in order to accommodate their expansion plans as well as being close to the existing Distribution Centre.

Indicate any benefits that the activity will have for society in general:

The proposed development entails the construction of a new SPAR Distribution Centre which will be situated within close proximity to one (1) of their existing Distribution Centres in Perseverance, Port Elizabeth. The proposed development will supply local shops / stores / businesses within the surrounding area with fresh and affordable food and produce, thus ensuring that members of the local communities have easy access to fresh and affordable food. In addition, construction of the proposed development will create a number of employment opportunities for a significant amount of time, as construction will be undertaken in four (4) phases over a period of 20 years. The creation of these employment opportunities is thus expected to subsequently contribute to and/or increase the local economy for a significant period of time. New permanent employment opportunities will also be created during the operation of the new proposed Distribution Centre and this will also in turn contribute to and/or increase the local economy. It is anticipated that SPAR will be undertaking social development programmes during the construction of the proposed development. This will allow members of the local communities to acquire new skills or develop their existing set of skills further in order to improve their employment opportunities. Since the proposed development will be located within an industrial area which contains other existing warehouses and/or distribution centres, it will promote competition as well as bolster the business development within the area.

Indicate any benefits that the activity will have for the local communities where the activity will be located:

The proposed development is considered to be desirable to the local municipality as the surrounding communities will be able to benefit directly and indirectly as a result of factors such as increased job opportunities, socio-economic development and an increase in the local economy. During the construction of the proposed development, a significant amount of employment opportunities for members of nearby local communities will be created and therefore the proposed development will have a positive contribution towards the surrounding communities. This is also expected to contribute to the economy of the nearby local communities. It should be noted that construction of the proposed development will be undertaken in four (4) phases over a period of approximately 20 years. As such, members of nearby local communities will have employment opportunities for a significant period of time. It is anticipated that SPAR will be undertaking social development programmes during the construction of the proposed development. This will allow members of the local communities to acquire new skills or develop their existing set of skills further in order to improve their employment opportunities. These individuals therefore also have the opportunity to potentially become permanent employees of SPAR. The construction of the proposed development is therefore expected to continue having a positive contribution towards the surrounding communities for a significant period of time. In addition, approximately 10 new permanent employment opportunities will be created per annum once the new distribution centre is operational.

It was further advised that SPAR take pride in their community and regional involvement in the Nelson Mandela Bay Metropolitan Municipality (NMBMM). The proposed extension of the Regional Distribution Centre is aimed at increasing efficiency and capacity so as to better serve the local community. SPAR are aware of the role that skills development and participation plays in the betterment of local communities as well as emerging businesses. Once the initial conceptual planning process has been completed, an assessment will be made which can determine the extent of opportunities available in the various building trades required. SPAR is committed to playing a role in the economic growth of the NMBMM and all its communities.

10. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline:	Administering authority:	Date:
National Environmental Management Act (Act No. 107 of 1998) as amended.	Provincial	27 November 1998
National Environmental Management Act (Act No. 107 of 1998) as amended.	Provincial	4 December 2014
Environmental Impact Assessment Regulations (2014)	Provincial	4 December 2014
National Environmental Management: Biodiversity Act (NEMBA) (Act No. 10 of 2004)	Provincial	7 June 2004
Conservation of Agricultural Resources Act (CARA) (Act No. 43 of 1983) as amended	Provincial	27 April 1983
National Water Act (Act No. 36 of 1998)	Provincial	26 August 1998
National Water Amendment Act (Act No. 27 of 2014)	Provincial	2 June 2014
National Heritage Resources Act (NHRA) (Act No. 25 of 1999)	Provincial	28 April 1999
National Heritage Council Act (Act No. 11 of 1999)	Provincial	23 April 1999

11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

11(a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

YES/	<input checked="" type="checkbox"/>
20m ³	

If yes, what estimated quantity will be produced per month?

How will the construction solid waste be disposed of (describe)?

Construction solid waste will be disposed of at an approved refuse site using waste skips. Alternatively, construction solid waste will be loaded into "bakkies" or trucks.

Where will the construction solid waste be disposed of (describe)?

Construction solid waste will be disposed of at an approved refuse site

Will the activity produce solid waste during its operational phase?

YES/	<input checked="" type="checkbox"/>
Approx. 34 tons	

If yes, what estimated quantity will be produced per month?

How will the solid waste be disposed of (describe)?

SPAR has a sophisticated waste compressing machine which will compress any unwanted waste (boxes etc.) into smaller, manageable pallets. These pallets will then be delivered to a waste facility off site. Smaller pallets mean less trips, thus efficient in delivery and turnaround time. It was advised that all cardboard and plastic waste is currently being recycled by Reclam and Abbeys respectively. All general office waste is collected by Oricol Environmental Services for disposal. In addition, it was advised that all food waste is shredded by Oricol.

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

Solid waste will only be fed into a municipal waste stream and will not be disposed of in any other manner. It was advised that all cardboard and plastic waste will be recycled, while all general office waste will be collected by a selected waste management company for disposal (as is currently being done at the existing SPAR Distribution Centre). In addition, it was advised that all food waste will be shredded by a selected waste management company.

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?

	NO/
--	-----

If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility?

	NO/
--	-----

If yes, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

11(b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?

	NO/
--	-----

If yes, what estimated quantity will be produced per month?

N/A

Will the activity produce any effluent that will be treated and/or disposed of on-site?

	NO/
--	-----

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility?

NO/

If yes, provide the particulars of the facility:

Facility name:
Contact person:
Postal address:
Postal code:
Telephone:
E-mail:

[Redacted information]

Cell:
Fax:

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

No recycling of grey water has been incorporated into the design at this stage.

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

NO/
NO/

If yes, is it controlled by any legislation of any sphere of government?

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the emissions in terms of type and concentration:

The type of facility is warehouse storage based. There is no mechanical plant which will be omitting emissions into the atmosphere as one would expect in a factory environment / setting. The only emissions anticipated on site is that of the trucks travelling to and from the site.

11(d) Generation of noise

Will the activity generate noise?

NO/
NO/

If yes, is it controlled by any legislation of any sphere of government?

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the noise in terms of type and level:

The type of activity is warehouse storage based and therefore has no noise pollution one would expect at a factory or industry plant. Noise levels are minimal and limited to only that of the trucks travelling to and from the site.

12. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es)

municipal/	
-------------------	--

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

N/A	
YES/	

Does the activity require a water use permit from the Department of Water Affairs?

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

A water use license application (WULA) will need to be applied for considering activities that will take place within or within close proximity to the identified depression wetland. It is understood that due to limited space (based on the entire project and additional future phases to be constructed), the current layout and project components cannot be altered to avoid the identified depression wetland. As a result, the proposed development will need to involve the infill of the wetland in order to facilitate construction of the required components and attenuation ponds. Ultimately, the wetland will need to be destroyed. In light of the above, the only way to permit the loss of the depression wetland is to compile and implement a suitable wetland offset plan that is acceptable and approved by the Department of Water and Sanitation (DWS) and DEDEA. As such, a wetland off set plan is being compiled for approval and will be implemented in order to ensure that there is no “net-loss” of the wetlands in the local area. The wetland offset plan is being compiled by a suitably qualified wetland specialist for approval by the relevant environmental and water authorities. The wetland offset plan is being undertaken in accordance with the Wetland Offset Guidelines (Macfarlane et al., 2016). It is understood that due to limited space (based on the entire project and additional future phases to be constructed), the current layout and project components cannot be altered such that the proposed development can avoid the identified depression wetland. As a result, the proposed development will need to involve the infill of the wetland in order to facilitate construction of the required components and attenuation ponds. Ultimately, the wetland will need to be destroyed. In light of the above, the only way to permit the loss of the depression wetland is to compile and implement a suitable wetland offset plan that is acceptable and authorized by DWS and DEDEA. As such, a wetland offset plan is being put in place and will be implemented in order to ensure that there no “net-loss” of the wetlands in the local area. The wetland offset plan is subsequently being compiled by a suitably qualified wetland specialist for approval by the relevant environmental and water authorities. The wetland offset plan is being undertaken in accordance with the Wetland Offset Guidelines (Macfarlane et al., 2016). Appropriate offsets as determined by the wetland offset plan will be implemented.

Based on correspondence from DEDEA, following an environmental pre-application meeting held on the 23rd of March 2017, it has been confirmed that DEDEA are favourable to the process of issuing an EA (pending satisfactory assessment of the environmental authorisation application) with conditional approval such that the conditions can be assessed by DWS in the processing of the Water Use License (WUL) application. The goal of the wetland offset will be to protect intact wetlands or alternatively rehabilitate similar depression wetlands within the same local catchment should no intact wetlands be identified. Six (6) potential wetland offset sites have been identified that are within a 2km radius of the wetland to be lost on the study site. This is shown in **Figure 18** below.



Figure 18. Potential Wetland Offset Rehabilitation Sites numbered 1 to 6. Study Site outlined in Blue.

Through the wetland offset process, the relevant stakeholders will be engaged to assist in identifying the most suitable site at a stakeholder workshop. The details will be included in the wetland offset plan to be approved by the DWS in the WULA process. The WULA process will be undertaken in accordance with Chapter 4 Part 1 Section 21 of the National Water Act, 1998 (Act No. 36 of 1998) whereby the following water uses will be applied for:

- c) Impeding or diverting the flow of water in a watercourse;
- i) Altering the bed, banks, course or characteristics of a watercourse.

As the wetland offset plan process is currently underway and will be submitted as part of the WULA process, the wetland offset plan will not accompany the Basic Assessment Report (BAR).

The ultimate responsibility of the management of the wetland offset will be the SPAR Group (Ltd).

13. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

- The truck workshop will have large water tanks for rainwater harvesting, allowing the stored water to be used for the washing of the trucks and site irrigation within the vicinity.
- Stormwater harvesting has been incorporated into the site's design, with attenuation ponds collecting all the water, to be a source for grey water irrigation.
- The design of the warehouse roof and vertical sheeting monitors maximises the amount of natural light that can penetrate the warehouse envelope. Sensors in the warehouse will gauge the natural light levels and adjust the amount of artificial lighting required, thus reducing energy.
- The new facility will include automated truck washing stations in order to eliminate high man-hours and resources needed to manually clean the SPAR fleet.
- The buildings have been orientated and incorporates design elements such as strip windows on sun facing facades in order to reduce the building heat gain, resulting in less energy used in the cooling systems for the facility.
- The facility will make use of in-house recycling systems to reduce the recycling process, creating smaller packages and therefore being more energy efficient in the waste management of the warehouse.
- The main warehouse roof will be insulated, reducing the heat gain and loss of the building.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

- All artificial lighting will use LED technology rather than standard light fittings in order to reduce power consumption and increase lifespan of the bulbs.
- Approximately 13 000m² of roof area is available for solar panels to be located upon.
- Solar power will be used to supply power to lights and battery charging bays among others, reducing the electrical load on the national grid.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

1. For linear activities (pipelines, etc.) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area, which is covered by each copy No. on the Site Plan.

Section C Copy No. [REDACTED]
(e.g. A):

2. Paragraphs 1 - 6 below must be completed for each alternative.

3. Has a specialist been consulted to assist with the completion of this section?

YES ✓	
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If YES, please complete form XX for each specialist thus appointed:

All specialist reports must be contained in Appendix D.

Biodiversity, Surface Water, Heritage, and Palaeontology Specialists have been appointed by SiVEST to undertake specialist assessments for the Basic Assessment (BA) process. The Biodiversity, Surface Water, Heritage and Palaeontology Specialist Reports are provided in **Appendix D1, Appendix D2, Appendix D3 and Appendix D4** respectively.

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat ✓	1:50 – 1:20 ✓	1:20 – 1:15 ✓	1:15 – 1:10 ✓	
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As indicated above, the gradient of the proposed project site varies across the site. The proposed project site is considered to have a gradient of 1:15 – 1:10 within the south-western part, while the north-eastern part of the site is considered to have a gradient flatter than 1:50

Alternative S2 (if any):



Alternative S3 (if any):



2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

2.1 Ridgeline

2.2 Plateau

2.3 Side slope of hill/mountain ✓

2.4 Closed valley

2.5 Open valley

2.6 Plain

2.7 Undulating plain / low hills

2.8 Dune

2.9 Seafront

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following (tick the appropriate boxes)?

	Alternative S1:	Alternative S2 (if any):	Alternative S3 (if any):
Shallow water table (less than 1.5m deep)	YES ✓		
Dolomite, sinkhole or doline areas			
Seasonally wet soils (often close to water bodies)	YES ✓		
Unstable rocky slopes or steep slopes with loose soil			
Dispersive soils (soils that dissolve in water)			

Soils with high clay content (clay fraction more than 40%)

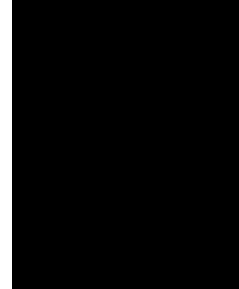
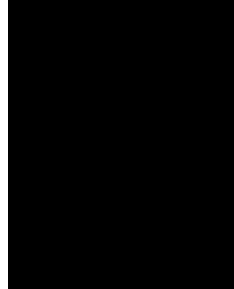
YES ✓

Any other unstable soil or geological feature

NO ✓

An area sensitive to erosion

NO ✓



If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. (Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted).

4. GROUNDCOVER

Indicate the types of groundcover present on the site:

4.1 Natural veld – good condition ^E

4.2 Natural veld – scattered aliens ^E ✓

4.3 Natural veld with heavy alien infestation ^E

4.4 Veld dominated by alien species ^E

4.5 Gardens

4.6 Sport field

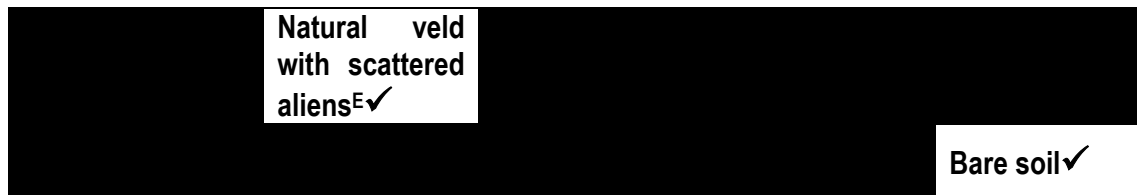
4.7 Cultivated land

4.8 Paved surface

4.9 Building or other structure

4.10 Bare soil ✓

The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).



If any of the boxes marked with an “^E” is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn’t have the necessary expertise.

A Biodiversity specialist study was undertaken for the proposed development. The Biodiversity specialist report is include in **Appendix D1**.

5. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

5.1 Natural area ✓

5.2 Low density residential

5.3 Medium density residential

5.4 High density residential ✓

5.5 Informal residential ✓

5.6 Retail commercial & warehousing ✓

5.7 Light industrial

5.8 Medium industrial ^{AN} ✓

5.9 Heavy industrial ^{AN}

5.10 Power station

5.11 Office/consulting room

5.12 Military or police base/station/compound

5.13 Spoil heap or slimes dam^A

5.14 Quarry, sand or borrow pit

5.15 Dam or reservoir

5.16 Hospital/medical centre

5.17 School

5.18 Tertiary education facility

5.19 Church

5.20 Old age home

5.21 Sewage treatment plant^A

5.22 Train station or shunting yard^N

5.23 Railway line ^N ✓

5.24 Major road (4 lanes or more)^N

5.25 Airport^N

5.26 Harbour

5.27 Sport facilities

5.28 Golf course

5.29 Polo fields

5.30 Filling station^H

5.31 Landfill or waste treatment site

5.32 Plantation

5.33 Agriculture

5.34 River, stream or wetland ✓

5.35 Nature conservation area

5.36 Mountain, koppie or ridge

- 5.37 Museum
- 5.38 Historical building
- 5.39 Protected Area
- 5.40 Graveyard
- 5.41 Archaeological site
- 5.42 Other land uses (describe)

If any of the boxes marked with an "N" are ticked, how will this impact / be impacted upon by the proposed activity.

The proposed project site is situated within 500m of a railway line. This railway line traverses the project site, as well as the existing industrial area which is located adjacent to the proposed project site. The railway line appears to end at the northern corner of the proposed project site. In addition, this railway line links to another railway line which is located to the south-east of the project site. The closest railway yard / train station is located in the village of Redhouse, approximately 2.7km to the east of the project site. Due to the fact that the identified railway line traverses an already transformed / disturbed industrial area which contains existing warehouses, businesses, distribution centres etc., the proposed development is not expected to impact this railway line. Additionally, this railway line can be used by SPAR in order to transport materials and/or machinery / equipment to the project site during construction, as well as stock / inventory and/or machinery / equipment to the new Distribution Centre during operation.

If any of the boxes marked with an "An" are ticked, how will this impact / be impacted upon by the proposed activity.

If YES, specify and explain:

The proposed project site is situated adjacent to an already transformed industrial area. There are several other businesses, warehouses, distribution centres etc. which are currently operating within this industrial area. As such, the proposed development will fit with the land use. Initially and at various later stages when the additional phasing is undertaken, the proposed development would impact surrounding businesses, warehouses, distribution centres etc. during the construction phase.

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity.



6. CULTURAL/HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including Archaeological or palaeontological sites, on or close (within 20m) to the site?



If YES,
explain:

A Heritage Impact Assessment (HIA) was undertaken in order to determine whether the proposed development would impact any significant heritage resources located within the project site. The archival research undertaken as part of the HIA indicated that there was not expected to be any significant archaeological or historical resources present. The subsequent field work completed for the HIA component in January 2017, has however confirmed that two heritage sites /find spots were identified within the project study area.

A desktop Palaeontological Impact Assessment (PIA) was undertaken as part of the HIA. The desktop PIA subsequently indicated that the development footprint of the study area is underlain by the Cretaceous aged Sundays River and Kirkwood Formations of the Uitenhage Group. The palaeontological sensitivity of these areas is rated as very high. It was thus recommended that a full EIA level PIA be conducted in order to assess the value and prominence of fossils in the development area and the effect of the proposed development on the palaeontological heritage. In light of the above, a full EIA level PIA was subsequently undertaken. The EIA level PIA forms part of the HIA and complies with the requirements of the South African National Heritage Resource Act (Act No. 25 of 1999). A "Chance Find Protocol" report for the chance find of fossils has also been compiled and forms part of the EIA level PIA study.

If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist:

The archival research undertaken as part of the HIA indicated that there was not expected to be any significant archaeological or historical resources present within the proposed project site. The subsequent field work completed for the HIA component in January 2017 however confirmed that two heritage sites / find spots were identified within the project study area. These two isolated archaeological findspots are considered to be of low to negligible significance. As such, no fatal flaws have been identified from a heritage perspective and no significant legislative implications are therefore anticipated.

Based on the recommendation of the HIA, an EIA level Palaeontological Impact Assessment (PIA) was undertaken. The EIA level PIA found that several possible mineralized (expected to be "fossilized") bones occur, with hundreds of clearly defined much younger bones in the study site that seems to be used as a dumping site by local inhabitants of the area. In addition, a Very High Palaeontological sensitivity is allocated to areas underlain by the Fossiliferous Cretaceous aged marine deposits of the Sundays River Formation and a High Palaeontological sensitivity to areas underlain Low Level Gravels of Tertiary to Quaternary age. Although suspiciously fossiliferous, bone material found associated with Tertiary aged gravels might be related to recent (1968-69) flooding in the area and the HIA has taken note of this fact. A "Chance Find Protocol" report for the chance find of fossils has also been compiled and forms part of the EIA level PIA study. Despite the presence of the above-mentioned paleontologically sensitive areas, no fatal flaws have been identified from a palaeontology perspective and no significant legislative implications are therefore anticipated.

Will any building or structure older than 60 years be affected in any way?

NO ✓

Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

NO ✓

If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

- (a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the competent authority) at a place conspicuous to the public at the boundary or on the fence of—
 - (i) the site where the activity to which the application relates is or is to be undertaken; and
 - (ii) any alternative site mentioned in the application;
- (b) giving written notice to—
 - (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
 - (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
 - (v) the municipality which has jurisdiction in the area;
 - (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
 - (vii) any other party as required by the competent authority;
- (c) placing an advertisement in—
 - (i) one local newspaper; or
 - (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other 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 local 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 subregulation 54(c)(ii); and
- (e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to—
 - (i) illiteracy;
 - (ii) disability; or
 - (iii) any other disadvantage.

Proof of the site notice which was erected near the proposed project site, as well the advert which was placed in a local newspaper in order to advertise the proposed development, are include in **Appendix G6(a)** respectively. In addition, a copy of the Background Information Document (BID) and BID Registration and Comment Form which were left at prominent positions at the KwaMagxaki Public Library in Ibhayi are provided in **Appendix G4**. Proof that the above-mentioned documents (i.e. BID and BID Registration and Comment Form) were left at prominent positions at the KwaMagxaki Public Library are also provided in **Appendix G4**.

2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

- (a) indicate the details of the application which is subjected to public participation; and
- (b) state—
 - (i) that the application has been submitted to the competent authority in terms of these Regulations, as the case may be;
 - (ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;
 - (iii) the nature and location of the activity to which the application relates;
 - (iv) where further information on the application or activity can be obtained; and
 - (iv) the manner in which and the person to whom representations in respect of the application may be made.

Proof of the site notice which was erected near the proposed project site, as well the advert which was placed in a local newspaper in order to advertise the proposed development, are include in **Appendix G6(a)** respectively. In addition, a copy of the Background Information Document (BID) and BID Registration and Comment Form which were left at prominent positions at the KwaMagxaki Public Library in Ibhayi are provided in **Appendix G4**. Proof that the above-mentioned documents (i.e. BID and BID Registration and Comment Form) were left at prominent positions at the KwaMagxaki Public Library is also provided in **Appendix G4**.

SiVEST submitted the DBAR to DEDEA on the 26th of April 2017. A copy of the DBAR was sent to the KwaMagxaki Public Library and placed in a prominent position so that this could be accessed by the general public. Proof that the DBAR was placed in a prominent position at the KwaMagxaki Public Library is included in **Appendix G6(g)**.

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the competent authority in terms of these regulations, the nature and location of the activity, where

further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of the EIA regulations.

Advertisements and notices must make provision for all alternatives.

Proof of the site notice which was erected near the proposed project site, as well the advert which was placed in a local newspaper in order to advertise the proposed development, are include in **Appendix G6(a)** respectively. In addition, a copy of the Background Information Document (BID) and BID Registration and Comment Form which were left at prominent positions at the KwaMagxaki Public Library in Ibhayi are provided in **Appendix G4**. Proof that the above-mentioned documents (i.e. BID and BID Registration and Comment Form) were left at prominent positions at the KwaMagxaki Public Library are also provided in **Appendix G4**.

4. DETERMINATION OF APPROPRIATE MEASURES

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

The Public Participation Process (PPP) was initiated in March 2017 with the erection of the site notice. A newspaper advertisement was also placed in “The Herald” Newspaper on the 19th of April 2017 in order to advertise the proposed development. Proof of the site notice which was erected near the proposed project site, as well the advert which was placed in “The Herald” Newspaper, are include in **Appendix G6(a)** respectively. Copies of the Background Information Document (BID) and BID Registration and Comment Form were then distributed to the KwaMagxaki Public Library in Ibhayi and were placed in prominent positions. A copy of the BID and BID Registration and Comment Form which were left at prominent positions at the KwaMagxaki Public Library are provided in **Appendix G4**. Proof that the above-mentioned documents (i.e. BID and BID Registration and Comment Form) were left at prominent positions at the KwaMagxaki Public Library are also provided in **Appendix G4**.

SiVEST subsequently submitted the DBAR to DEDEA on the 26th of April 2017. Electronic copies of the DBAR (via CD) were also posted to the relevant organs of state / authorities. Proof that electronic copies of the DBAR were posted to the relevant organs of state / authorities is included in **Appendix G6(c)**. Notifications were then sent to all registered stakeholders and I&APs, as well as organs of state / authorities, in order to inform them about the availability of the DBAR and to inform them that the comment and review period was commencing. Proof that notifications were sent to I&APs, stakeholders and organs of state / authorities in order to inform them about the availability of the DBAR, as well as to inform them about the comment and review period, are included in **Appendix G6(b)** and **Appendix G6(c)** respectively. It should be noted that a copy of the DBAR was also sent to the KwaMagxaki Public Library and placed in a prominent position so that this could be accessed by the general public. Proof that the DBAR was placed in a prominent position at the KwaMagxaki Public Library is included in **Appendix G6(g)**.

During the PPP process, on-going consultation took place with various key stakeholders and organs of state, which included provincial, district and local authorities, relevant government departments, parastatals and NGO’s. All correspondence / consultation undertaken with the relevant organs of state / authorities is included in **Appendix G6(e)**. Additionally, all correspondence / consultation undertaken with I&APs and stakeholders is included in **Appendix G6(f)**. A landowner Focus Group Meeting (FGM) was subsequently undertaken on the 16th of May 2017 at the existing SPAR Eastern Cape Distribution Centre in Perseverance. Invitations to the FGM were sent to the adjacent landowners / businesses in the Perseverance Industrial Park via email on the 9th of May 2017. In addition, a Public Meeting (PM) was also undertaken on the 16th of May 2017 at the Kwadwesi Community Hall in Kwadwesi, Ibhayi. Copies of the invitations to the landowner FGM, as well as the PM, are included in **Appendix G6(h)**. Posters advertising the above-mentioned PM were also sent to the Library Manager of the KwaMagxaki Public Library so that these could be erected in prominent areas at the Library. Additionally, posters and pamphlets advertising the PM were also sent to the Ward Councilor for Ward 30 (i.e. Mr. Mbulelo Gidane) so that these could be erected and distributed throughout the affected communities. The Ward Councilor was also asked to inform as many members of the affected communities about the PM as far as possible. It should be noted that the Ward Councilor also attended the PM which was undertaken. All correspondence undertaken with the Ward Councilor for Ward 30, as well as the Library Manager of the KwaMagxaki Public Library is included in **Appendix G6(f)**. Copies of the posters / pamphlets advertising the PM which were sent to the Library Manager of the KwaMagxaki Public Library, as well as the Ward Councilor for Ward 30,

are provided in **Appendix G6(i)**. Proof that the above-mentioned posters / pamphlets were erected in prominent positions at the KwMagxaki Public Library is also included in **Appendix G6(i)**.

All comments / concerns / issues raised during the landowner FGM, as well as the PM, have been recorded and captured in the minutes of the respective meetings. Copies of the Landowner FGM and PM presentations, as well as the respective meeting minutes, are included in **Appendix G6(j) and Appendix G6(k)** respectively. All correspondence relating to the Landowner FGM and PM are included in **Appendix G6(f)**. It should be noted that a FGM was not undertaken with organs of state / authorities as a representative from SiVEST undertook pre-application meetings with representatives from DWS and DEDEA on the 22nd and 23rd of March respectively. Information relating to the pre-application meeting which was undertaken with representatives from DEDEA and DWS is included in **Appendix G1** and **Appendix G2** respectively.

5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to this application. The comments and response report must be attached under Appendix E.

All comments / concerns / issues which were received from registered stakeholders or Interested and/or Affected Parties (I&APs) have been captured in the Comment and Response Report (C&RR). The C&RR is provided in **Appendix E**.

6. AUTHORITY PARTICIPATION

Authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least 30 (thirty) calendar days before the submission of the application.

List of authorities informed:

The following local authorities have been informed about the BA application:

- Nelson Mandela Bay Metropolitan Municipality (NMBMM)

List of authorities from whom comments have been received:

SiVEST have received comments from the following local authorities date:

- **Nelson Mandela Bay Metropolitan Municipality (NMBMM)**
 - An email was sent to SiVEST on the 4th of May 2017 in order to inform SiVEST that Mrs. Jill Miller had been transferred to the Settlerspark Nature Reserve as from the 1st of April 2017. It was stated that Siviwe Tutu, Vuyokazi Bazi and Joram Mkosana should be contacted for any EIA related queries. Proof of correspondence with Mrs. Jill Miller is included in **Appendix G6(e)**.
 - Emails were sent to Mr. Siviwe Tutu, Mr. Vuyokazi Bazi and Mr. Joram Mkosana on the 5th of May 2017 in order to inform them about the proposed project, to notify them about the submission of the DBAR and to enquire whether SiVEST have the correct postal address (to ensure that the CD containing electronic copies of the DBAR was posted to the correct postal address). No responses were however obtained from the above-mentioned representatives. Mrs. Jill Miller was contacted via telephone and confirmed that the postal address to which the CD was sent was correct. She stated that the CD would be given to the appropriate person at the Municipality. A copy of the Organs of State / Authority DBAR Distribution List is included in **Appendix G6(c)**.

7. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for linear activities, or where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that sub regulation to the extent and in the manner as may be agreed to by the competent authority.

Any stakeholder that has a direct interest in the site or property, such as servitude holders and service providers, should be informed of the application at least 30 (thirty) calendar days before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?

YES ✓	
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If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

The following comments have been received from Stakeholders / I&APs to date

- Mr. Makwela requested to be registered as an I&AP with regards to the proposed development and requested that he receive project related notifications and documents. Mr. Makwela was subsequently registered as an I&AP.
- Mrs. Carmen Barends requested to be registered as an I&AP with regards to the proposed development. Mrs. Barends was subsequently registered as an I&AP.
- Dr. Paul Martin requested to be registered as an I&AP with regards to the proposed development. Dr. Martin was subsequently registered as an I&AP.
- Mr. Makwela suggested that the SPAR Group participates in the transformation of black business during the project development.
- Mr. Makwela expressed concern regarding the absence of community inclusion in partaking in the development of the project. It was suggested that the SPAR Group include the nearby residents in the development of the project.
- Dr. Martin stated that he has no objection in principle to the proposed development.
- Dr. Martin expressed concern regarding the Wetland Offset Process and Plan. It was indicated that there are a number of important freshwater wetlands on the north side of the R367 (Swartkops - Uitenhage Rd), between the road and railway line. Dr. Martin has been undertaking bi-annual Co-ordinated Waterbird Counts on these wetlands for many years. Denise Schael of NMMU has also looked at these wetlands as part of a metro wide study. The wetlands are currently not protected or managed, although they are included in a proposed RAMSAR site that would include the entire Swartkops Estuary valley and the salt pans and freshwater wetlands within the valley. Dr. Martin suggested that the Wetland Offset Process and Plan targets one or more of these wetlands.
- With regards to community use of the wetlands, Dr. Martin stated that local herders allow their cattle to drink water at the wetlands and has also found duck traps laid by locals at the wetlands in the past. It was further stated that many people admire the water birds on the “vlei” near the traffic lights and birders regularly visit the wetlands, especially the one near the traffic lights. Stormwater systems also drain into the wetlands.
- Dr. Martin stated that the wetland closest to the proposed SPAR development (at 33 50.03'S;25 35.96'E) has suffered from reed encroachment in the past decade, probably due to nutrient rich "polluted" water from the Perseverance Industrial Area constantly draining into it. Management actions that would improve the wetlands range from ongoing removal of the refuse and rubbish from in and around them (probably the most basic but most important management action). It was stated that SPAR has a very good name in the Swartkops Valley as they sponsoring / co-sponsoring the Swartkops Conservancy litter picking project along the Swartkops estuary and adjacent areas. Other management actions would include (for example at the wetland closest to the proposed development) reducing the nutrients and pollutants in the inlet stream that mainly originates from the industrial area.
- Dr. Martin stated that he would be happy to provide more information / site visit / engage more with the Wetland Offset Process and Plan if it will lead to better management / preservation of the above-mentioned wetlands.
- Dr. Martin stated that most of the wetlands in the area have the endemic fern *Marsilea schelpeana*, which only appears after the pans have flooded.
- Dr. Martin stated that Denise Schael at NMMU may have some scientific wetland data for one or more of the above-mentioned wetlands.

All correspondence to and from the stakeholders / I&APs is included in **Appendix G6(f)**.

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2010, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

The following main issues were raised by Interested and/or Affected Parties (I&APs):

1. During the Landowner FGM which was undertaken on the 16th of May 2017, it was stated that the proposed project is of utmost importance to the Perseverance Industrial Park. It was further stated that there are no objections to the proposed project from the landowners / businesses in the Perseverance Industrial Park.
2. During the Landowner FGM which was undertaken on the 16th of May 2017, it was stated that there are no environmental concerns from the landowners / businesses in the Perseverance Industrial Park. The only environmental concern which the landowners / businesses in the Perseverance Industrial Park have is with regards to the local municipality not cleaning the area surrounding the Perseverance Industrial Park. They would like to see the municipality keep the surrounding area clean. It was stated that stormwater drains are not cleaned and people use the surrounding area in order to dump waste / rubbish.
3. Mr. Harry Roberts from the SACAA stated that the project site location is situated approximately 460m from a helipad on the adjacent property. Co-ordinates were provided for the project site as well as the adjacent property. It was further stated that any construction of high mast lighting or communication masts which may be planned, will need to be taken under review by the SACAA with regard to possible impact on the advised helipad.
4. During the PM which was undertaken on the 16th of May 2016, it was stated that there is subsistence (cattle) farming in the area around the project site / property and that some people might rely on the identified wetland within the project site.
5. One (1) of the registered I&APs (i.e. Dr. Paul Martin) expressed concern regarding the Wetland Offset Process and Plan. It was indicated that there are a number of important freshwater wetlands on the north side of the R367 (Swartkops - Uitenhage Rd), between the road and railway line. The wetlands are currently not protected or managed, although they are included in a proposed RAMSAR site that would include the entire Swartkops Estuary valley and the salt pans and freshwater wetlands within the valley. It was suggested that the Wetland Offset Process and Plan target one (1) or more of these above-mentioned wetlands.
6. One (1) of the registered I&APs (i.e. Dr. Paul Martin) expressed concern regarding community use of the wetlands. It was stated that local herders allow their cattle to drink

water at the wetlands and that duck traps laid by locals at the wetlands have been found in the past. It was further stated that many people admire the water birds on the “vlei” near the traffic lights and birders regularly visit the wetlands, especially the one near the traffic lights. It was however stated that stormwater systems also drain into the wetlands.

7. One (1) of the registered I&APs (i.e. Dr. Paul Martin) stated that the wetland closest to the proposed SPAR development (at 33 50.03'S;25 35.96'E) has suffered from reed encroachment in the past decade, probably due to nutrient rich "polluted" water from the Perseverance Industrial Area constantly draining into it. He recommended management actions that would improve the wetlands. Such actions range from on-going removal of the refuse and rubbish from in and around them (probably the most basic but most important management action). It was stated that SPAR has a very good name in the Swartkops Valley for sponsoring / co-sponsoring the Swartkops Conservancy litter picking project along the Swartkops estuary and adjacent areas in this regard. Other management actions were recommended and these included (for example at the wetland closest to the proposed development) reducing the nutrients and pollutants in the inlet stream that mainly originates from the industrial area.
8. One (1) of the registered I&APs (i.e. Dr. Paul Martin) stated that most of the wetlands in the area have the endemic fern *Marsilea schelpeana* which only appears after the pans have flooded.
9. During the PM which was undertaken on the 16th of May 2017 concern was expressed with regards to pest control when the new SPAR DC is operational (e.g. Snakes and rats moving into nearby residential community). It was stated that this has the potential to negatively affect the nearby local residential community as pests could move into this area.
10. During the PM which was undertaken on the 16th of May 2017, concern was expressed regarding the negative impacts of the construction activities on the nearby household. During construction there will be heavy machinery, vehicles, equipment etc. making a fair amount of noise and dust.
11. During the PM which was undertaken on the 16th of May 2017 concern was expressed about the high rate of unemployment in Ward 30. It was suggested that SPAR employ people from Ward 30. It was recommended that should SPAR advertise for future employment opportunities, this should be aimed at the youth of Ward 30 specifically.
12. During the PM which was undertaken on the 16th of May 2017 it was stated that from a business perspective, most of the local community members are self-employed or own SMME's. They are thus highly interested in SPAR's transparency during the procurement process with regards to SMME's taking part from the onset. The community would like to support a project in Ward 30, but want to make sure they benefit from it as entrepreneurs. It was requested that better transparency from SPAR in terms of what is going to happen is needed. This includes the professional services which will be required from general labourers / workers which will be hired / employed.

13. During the PM which was undertaken on the 16th of May 2017 it was recommended that it would be of the best interest to the residents of Ward 30 that members of the ward committees are given preference with regards to employment opportunities, as well as service and product procurement etc. This will have a positive spin-off for the SMME's. It was also stated that Ward 30 is one of the best wards when it comes to local expertise as there is a lot available.
14. During the PM which was undertaken on the 16th of May 2017, the Ward Councilor (i.e. Mr. Gidane) stated that he is in support of the proposed project.
15. During the PM which was undertaken on the 16th of May 2017, it was stated that the SMME's of Ward 30 are in support of the proposed project and also hope that the project will have positive benefits for the local community.
16. One (1) of the registered I&APs (i.e. Mr. Loyiso Makwela) suggested that the SPAR Group participates in the transformation of black business during the project development.
17. 16. One (1) of the registered I&APs (i.e. Mr. Loyiso Makwela) expressed concern regarding the absence of community inclusion in partaking in the development of the project. It was suggested that the SPAR Group include the nearby residents in the development of the project.

Response from the practitioner to the issues raised by the interested and affected parties as per each numerical point above is provided below (A full response must be given in the Comments and Response Report that is attached to this report (**Appendix E**):

3. **Harry Roberts (SACAA)** – Mr. Roberts' comments will be forwarded to SPAR for consideration and planning accordingly. It will ultimately be SPAR's responsibility to ensure that a review is undertaken by the SACAA with regards to the possible impact on the advised helipad, should they construct high mast lighting or communication masts.

Mr. Roberts' comments, as well as the subsequent response, have been captured in the C&RR which is included in **Appendix E**. Additionally, all correspondence undertaken with Mr. Roberts is included in **Appendix G6(f)**.

4. **Issue regarding subsistence farming in area around project site (PM: 16 May 2017)** - It was stated that SiVEST will be going through the process of finding out whether anyone relies on the identified wetland (for drinking water etc.). As far as it is understood, the water is quite salty and "brackish" and may not be suitable for drinking or any other purposes for subsistence farming. This is an issue that will be investigated further in the wetland offset plan currently being undertaken.

The above-mentioned response was captured in the C&RR which is included in **Appendix E**. Additionally, the meeting minutes which were captured with regards to the PM which was undertaken on the 16th of May is included in **Appendix G6(k)**.

5. **Dr. Paul Martin: Registered I&AP (Comments received regarding wetland offset process)** - It was enquired whether there is any official documentation or research which the Surface Water Specialist could use in informing the wetland offset plan for the nearby wetlands mentioned. It was stated that the client (i.e. SPAR) has contacts with the local municipality whom SiVEST believe manages the land associated with the Swartkops floodplain area. It was stated that it is SiVEST's intention to look at these wetlands for potential wetland offsets. It was however further stated that SiVEST are still in the process of identifying which ones specifically to look at and what needs to be offset. Hence, any additional information that could be passed on to us at this early stage would be highly appreciated.

The Surface Water Specialist tried to view the wetland at the co-ordinates Dr. Martin provided, however, it appeared to be located at an excavation area. A Google Earth image was provided with regards to this. The Surface Water Specialist stated that he presumes that the wetlands which Dr. Martin have referred to in his email are closer to the study site (north and eastwards). Google Earth images of these wetlands were provided by the Surface Water Specialist.

The Surface Water Specialist's above-mentioned response was captured in the C&RR which is included in **Appendix E**. Additionally, all correspondence undertaken with Dr. Martin is included in **Appendix G6(f)**.

6. **Dr. Paul Martin: Registered I&AP (Comments received regarding wetland offset process)** - Same response as (5) above.

The Surface Water Specialist's response was captured in the C&RR which is included in **Appendix E**. Additionally, all correspondence undertaken with Dr. Martin is included in **Appendix G6(f)**.

7. **Dr. Paul Martin: Registered I&AP (Comments received regarding wetland offset process)** - Same response as (5) above.

The Surface Water Specialist's response was captured in the C&RR which is included in **Appendix E**. Additionally, all correspondence undertaken with Dr. Martin is included in **Appendix G6(f)**.

8. **Dr. Paul Martin: Registered I&AP (Comments received regarding endemic fern which appears after pans have flooded)** - Dr. Martin was informed that SiVEST will be looking to organise a stakeholder meeting with all relevant stakeholders in order to present the wetland offset plans which SiVEST are busy putting together to propose. It was enquired whether Dr. Martin has any contacts from the local area in terms of local interest groups/NGOs etc. which

SiVEST could invite to the stakeholder meeting. No response was however received from Dr. Martin.

The Surface Water Specialist's above-mentioned response was captured in the C&RR which is included in **Appendix E**. Additionally, all correspondence undertaken with Dr. Martin is included in **Appendix G6(f)**.

9. **Issue regarding pest control when SPAR DC is operational (PM: 16 May 2017)** – It was stated that during construction, SPAR will only be concerned with pest control on site. It was elaborated that when SPAR start construction there will be displacement of animals to the surrounding areas. It was acknowledged that some animals may move to the nearby residential community. However, SPAR are only obliged to assess and relocate sensitive species / animals on the property that is owned or leased for the proposed development. In terms of the remaining species, it is assumed that once construction works begin they will move off into the surrounding natural area. While SPAR are undertaking bulk earthworks and clearing, SPAR are required to implement an Environmental Management Programme (EMPr) and an Environmental Control Officer (ECO) will also be appointed to monitor construction activities. The ECO will ensure that all mitigation measures that were recommended by the respective specialists (biodiversity, surface water, heritage and palaeontology) are upheld. In terms of mitigation measures against animals moving into surrounding areas and relocating animals, it will be the responsibility of the ECO to capture and move animals into other areas where these animals pose a threat (i.e. snakes) or are sensitive species. There is an obligation to keep animals in the same local areas so release of any animals captured will be in the local natural area. However, care will be taken not to release animals near residential areas. This issue was raised with the biodiversity specialist for consideration. SiVEST also enquired whether there are any specific mitigation measures in place for pest control during construction.

In addition, it was advised that SPAR do undertake pest control at all of their facilities and it is done in an ecologically friendly manner through a company by the name of “Urban Raptor”. They have a good reputation in the Port Elizabeth area and are well-known. No chemicals are used for pest control. Only natural methods are used.

Following correspondence with the biodiversity specialist regarding the matter of pest control, it was stated that little can be done in terms of snakes, besides catching them individually before/during construction. However, by controlling rats on the project site, it was stated that one can reduce the food source for snakes which may in turn reduce their numbers (if at all significant). It was further stated that in the opinion of the biodiversity specialist, should there be an issue with rats on the project site, this will most likely be as a result of the surrounding community dumping waste within the study area. This in turn has likely lead to the increase in snakes searching for rats within the project site. It was also stated that there is little one can do about animals moving away from disturbance into surrounding areas. In all likelihood, any form of movement into surrounding areas will be limited in duration. There are also natural areas surrounding the study area which the specialist assumes the animals will rather move to instead of into houses etc.

The above-mentioned response was captured in the C&RR which is included in **Appendix E**. Additionally, the meeting minutes which were captured with regards to the PM which was undertaken on the 16th of May is included in **Appendix G6(k)**.

10. **Issue regarding negative impacts of construction activities on nearby households (PM: 16 May 2017)** - It was stated that there will unfortunately be negative noise impacts during the construction phase as the nearby households / residential community are situated within relatively close proximity to the propose project site. These include impacts such as noise and dust generation as a result of the construction activities. It was further stated however that SPAR will need to construct in a manner which will not significantly impact the nearby households / residential communities. It was explained that an EMPr will however be implemented during the construction phase to ensure that construction is undertaken in an appropriate and legislated manner in terms of the construction activities and noise levels. Additionally, it was stated that measures will be proposed in the EMPr in order to deal with issues such as dust and noise generation during construction, as well as to reduce these impacts.

It was stated that part of the ECO's duties are to ensure that SPAR (and contractor) are adhering to the EMPr and are implementing the mitigation measures / recommendations which have been put in place to reduce the impacts associated with the construction phase. It was elaborated that if there are any complaints, the ECO will need to be made aware of this and this will be dealt with accordingly. The community are therefore have a right to complain if they have any issues concerning noise and dust during construction or should they feel that they are being impacted by the construction activities. The ECO will audit against the Environmental Authorisation (EA) to ensure that all of the mitigation measures / recommendations in the EMPr are adhered to. Moreover, it is a condition in most EMPrs that the employed contractor signs that they will adhere to these mitigation measures / recommendations. Overall, contractors will be held accountable. It was explained that the development can be stopped if the environmental department feel that SPAR (or the contractor) are not adhering to the mitigation measures / recommendations in the EMPr.

The above-mentioned response was captured in the C&RR which is included in **Appendix E**. Additionally, the meeting minutes which were captured with regards to the PM which was undertaken on the 16th of May is included in **Appendix G6(k)**.

12. **Recommendation regarding better transparency from SPAR in terms of what is going to happen during construction so that the community can take part (PM: 16 May 2017)** – It was advised that the SPAR Group Pty (Ltd) take pride in their community and regional involvement in the Nelson Mandela Bay Metropolitan Municipality (NMBMM). The proposed extension of the Regional Distribution Centre is aimed at increasing efficiency and capacity so as to better serve the local community. It was further stated that SPAR are aware of the role that skills development and participation plays in the betterment of local communities as well as emerging businesses. Once the initial conceptual planning process has been

completed, an assessment will be made which can determine the extent of opportunities available in the various building trades required. SPAR is committed to playing a role in the economic growth of Nelson Mandela Bay and all its communities.

The above-mentioned response was captured in the C&RR which is included in **Appendix E**. Additionally, the meeting minutes which were captured with regards to the PM which was undertaken on the 16th of May is included in **Appendix G6(k)**.

13. **Recommendation that members of the ward committees for Ward 30 are given preference with regards to employment opportunities, as well as service and product procurement etc. (PM: 16 May 2017)** – It was stated that the procurement process will be left to the discretion of SPAR should the project receive the necessary EA and water use license.

The above-mentioned response was captured in the C&RR which is included in **Appendix E**. Additionally, the meeting minutes which were captured with regards to the PM which was undertaken on the 16th of May is included in **Appendix G6(k)**.

16. **Mr. Loyiso Makwela: Registered I&AP (suggestion that SPAR participates in transformation of black business during project)** - Mr. Makwela's suggestion was duly noted and will be forwarded to SPAR for consideration.

The above-mentioned response was captured in the C&RR which is included in **Appendix E**. Additionally, Mr. Makwela's BID Registration and Comment Form is included in **Appendix G6(f)**.

17. **Mr. Loyiso Makwela: Registered I&AP (concern regarding absence of community inclusion in partaking in project)** - Mr. Makwela's comments and concerns were duly noted and will be forwarded to SPAR for consideration.

The above-mentioned response was captured in the C&RR which is included in **Appendix E**. Additionally, Mr. Makwela's BID Registration and Comment Form is included in **Appendix G6(f)**.

All comments / concerns / issues raised by registered I&APs, stakeholders, organs of state / authorities have been captured in the Comment and Response Report (C&RR). The C&RR is included in **Appendix E**.

2. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, construction phase,

operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed.

Alternative (preferred alternative)

Direct impacts:

▪ **Biodiversity Related Direct Impacts:**

Impact 1 – Impact on Floral Species of Conservation Concern

One floral Species of Conservation Concern (SCC), namely *Sideroxylon inerme* (milkwood) was observed during the site assessment. As the majority of the trees are relatively small and easy to transplant because the soil is sandy, it is recommended that the trees are incorporated as part of the landscaping of the proposed development, after obtaining the relevant permits. No other floral SCC were observed. The impact associated with the loss of habitat for these species is considered to be of medium-low significance during the construction phase and of low significance during the operational phase of the project prior to the implementation of mitigation measures. With the implementation of mitigation measures, the impact significance of the loss of important species may be reduced to low and very-low levels.

Impacts on floral species of conservation concern during the **construction** phase include:

- 1) Further site clearance and removal of remaining indigenous vegetation including floral SCC;
- 2) Increased anthropogenic activity within the study area and an increase in the collection of plant material for medicinal and other purposes; and
- 3) Potential uncontrolled fires due to increased human activity may impact on floral communities within the surrounding areas.

Impacts on floral species of conservation concern during the **operational** phase include:

- 1) An increase in alien floral species in the surrounding area and within open space areas, due to edge effects from the development within the study area; and
- 2) Loss of remaining indigenous plant species due to increased competition from alien invasive plants

Impact 2 – Impact on Faunal Species of Conservation Concern

No faunal SCC were identified within the study area and none are expected to occur permanently within this area due to the degraded state of faunal habitat and the constant predatory threat from domestic dogs and cats. The impact associated with the loss of habitat for these species is considered to be of low significance during both the construction and operational phase of the project prior to the implementation of mitigation measures. With the implementation of mitigation measures, the impact significance of the loss of important species may be further reduced to very-low levels.

Impacts on faunal species of conservation concern during the **construction** phase include:

- 1) Increased poaching risk of potential faunal SCC in the surrounding area due to increased human activity associated with the development;
- 2) Loss of potential faunal SCC due to habitat loss and a decrease in food supply;
- 3) Failure to implement a conservation strategy should any faunal SCC be encountered within the study area; and
- 4) Potential uncontrolled fires due to increased human activity may impact on faunal communities within the study area

Impacts on faunal species of conservation concern during the **operational** phase include:

- 1) Loss of potential biodiversity of SCC due to continued habitat loss within the study area and surrounding areas; and
- 2) Increased poaching risk, and hunting by domestic dogs of faunal SCC within the study area as a result of the increased human activity.

Mitigation measures for the above-mentioned biodiversity related impacts include the following:

- It is recommended that any infrastructure is planned away from the wetland. Some of the rescued species could be planted in the wetland buffer zone to re-establish Sundays Thicket as a further trade-off for development in the remaining Degraded Sundays Thicket. Rehabilitation and clean-up of the wetland can also be considered;
- If the Sundays Thicket habitat unit is to be developed, a suitable trade-off would be to conserve and rehabilitate a portion of the remaining habitat on site. Furthermore, the majority of the genera occurring naturally (*Crassula*, *Portulacaria*, *Carissa*, *Euphorbia*, *Aloe*, *Schotia* etc.) are excellent waterwise landscaping plants. Thus, plants sourced from the disturbance footprint can be used for landscaping purposes and the local floral genetic diversity can be conserved in-situ;
- Upon completion of construction activities, it must be ensured that no bare areas outside the development footprint remain and that indigenous grassland species endemic to the area are reintroduced as part of landscaping activities;
- *Sideroxylon inerme* (milkwood) was observed during the site assessment. This species is protected under the National Forest Act (1998). In terms of this act, protected tree species may not be cut, disturbed, damaged or destroyed and their products may not be possessed, collected, removed, transported, exported, donated, purchased or sold - except under licence granted by the Department of Water Affairs (DWA) (or a delegated authority). As the majority of the trees are relatively small and easy to transplant because the soil is sandy, it is recommended that the trees are incorporated as part of the landscaping of the proposed development, after obtaining the relevant permits;
- It is recommended that a rescue and relocation operation is implemented for *Chersina angulata* (Angulate Tortoise) prior to any site clearing activities taking place and that all tortoises be relocated to the nearby Zwartkops Valley Nature Reserve.

- Should any other floral or faunal SCC be encountered within the development footprint during the construction or operational phase, the following should be ensured:
 - o Effective conservation/relocation of individuals to suitable similar habitat in the vicinity of the area from where they have been removed must be ensured; and
 - o All rescue and relocation plans should be overseen by a suitably qualified specialist.
- No trapping or hunting of any faunal species is to take place;
- Prohibit the collection of any plant material for firewood or medicinal purposes;
- Informal fires by construction personnel should be prohibited;
- Keep the proposed development footprint as small as possible, managed all edge effects so as to not impact upon the surrounding more sensitive areas;
- Construction vehicles should be restricted to travelling on designated roadways only to limit the ecological footprint of the proposed development activities;
- Edge effect control needs to be implemented within construction areas, with specific consideration to erosion control and alien floral species management;
- Establishment of reintroduced vegetation must be monitored during the operational phase;
- Alien vegetation as listed in Appendix F of the biodiversity specialist report must be removed from the footprint area during the construction phase, with specific mention of Category 1b species in line with the NEMBA Alien and Invasive Species Regulations (2016); and
- Should maintenance or further infrastructure expansion activities be required during the operational phase, it should be ensured that these activities are kept strictly within the development footprint.

▪ **Surface Water Related Direct Impacts:**

Construction phase potential direct impacts include:

- 1) Impacts to the Geomorphology of the Wetland - During the construction phase, erosion, wetland soil removal and sedimentation potential impacts are expected with the preparation of bulk earthworks and construction of the proposed development. Initially, construction vehicles (heavy and light) will require access to the proposed components as per the layout. Physical degradation to the wetland by means of infill for roads and compaction are likely to take place within the temporary zone of wetland before infill of the wetland takes place. Thereafter, further compaction and movement directly within the entire wetland will be required once the wetland is totally infilled during the bulk earthworks phase. The bulk earthworks phase will include levelling and compacting of the construction areas as required in order for the various components to be constructed. With the levelling process, erosion impacts can take place on the wetland whilst construction is underway. Storm water drainage over flat surfaces may in all likelihood

drain into the wetland. Consequent water erosion can take place compromising and degrading the substrate of the wetland during this interim stage in the construction process. Duplex soil horizons (for example, sandy layer overlying a clay layer) are particularly vulnerable to erosion impacts given the different texture and composition of soils in the temporary zone leading to the permanent zone of the wetland. Underlying clay layers can erode away relatively easily if and where exposed. The structural integrity of the wetland will be compromised temporarily as long as erosion persists.

With the levelling process, infill of soil material can result in sedimentation of the wetland. In this instance, infill will need to take place over the full extent of the wetland. Prior to infill however, the substrate of the wetland may need to be removed in order for a suitable grade infill material to be substituted for better stability. Firm stability is required in order for solid foundations to be constructed for the various components of the proposed development. Removal of wetland soils initially may therefore be required. Should the substrate be removed and suitable material infilled within the entire wetland area, the sedimentation process will be complete and the wetland functionality will be lost in its entirety. Biogeochemical processing (of toxicants, phosphates and nitrates) associated with the wetland will therefore cease to take place, and drainage through the landscape shall follow.

Pre-mitigation significance rating is medium and negative. Only with the implementation of a wetland offset plan can the potential impact be offset. Some interim mitigation measures can be implemented until such time that the wetland is infilled and off setting is undertaken.

Mitigation measures for construction phase impacts to the geomorphology of the wetland include the following:

- **Preventing Temporary Increased Run-off, Sedimentation and Erosion Impacting on Surface Water Resources:** Vegetation clearing must take place in a phased manner, only clearing areas where construction will take place and not additional areas where construction will only take place in the future. Vegetation clearing must be limited to the construction areas and Right of Way (RoW) within surface water resources.

In general, adequate structures must be put into place (temporary or permanent where necessary in extreme cases) to deal with increased/accelerated run-off and sediment volumes. The use of silt fencing and potentially sandbags or hessian "sausage" nets can be used to prevent erosion in susceptible construction areas near the wetland before infill takes place. All impacted areas are to be adequately sloped to prevent the onset of erosion.

An appropriate construction storm water management plan formulated by a suitably qualified professional must accompany the proposed development to deal with increased run-off in the designated construction areas.

- **Offset Against Loss of Wetland Habitat:** As the wetland will be infilled for the proposed development, a wetland offset plan must be put in place and implemented such that

there is no “net-loss” of the wetlands in the local area. This will need to be compiled by a suitably qualified wetland specialist for approval by the relevant environmental and water authorities.

- 2) Impacts to Water Quality - During the construction process, potential contamination impacts as a result of stored oils, fuels, and other hazardous substances or materials being transported via stormwater run-off and / or direct leaks from construction vehicles and machinery entering the wetland can take place. Should this occur, contamination impacts to the wetland are likely to occur. Water quality impacts can also result from workers using the wetland for various purposes, such as for sanitation. Usage of sanitary substances (for example, soap) in or near the wetland can alter the chemical balance or water quality thereby causing pollution to the hydrological system. Additionally, usage of the wetlands for urine and faecal waste is another potential negative water quality impact. Use of water for building purposes can also lead to impaired water quality. Mixing cement and cleaning construction tools in the wetland can affect the water quality of the wetland. Impacts to the water quality may affect any organism inhabiting the wetlands. Although, no aquatic organisms were identified, the potential occurrence and subsequent health impact cannot be discounted. Contamination impacts to avi-fauna frequenting the wetland is also possibility, whereby the health of potential avi-fauna may be negatively affected. Moreover, contamination impacts may also extend to vegetation in the wetland, potentially resulting in plant death.

Pre-mitigation significance rating is medium and negative. Only with the implementation of a wetland offset plan can the potential impact be offset. Some interim mitigation measures can be implemented until such time that the wetland is infilled and off setting is undertaken.

Mitigation measures for construction phase impacts to water quality include the following:

- **Storage of Oils, Fuels and Hazardous Substances / Liquids:** All oils, fuels and hazardous substances or liquids must not be stored within 100m from surface water resources. Where these items are stored, the storage area must be adequately bunded to contain any spillage from containers. Emergency spill kits must be available to clean up and remove spills.
- **Preventing Soil and Surface Water Contamination:** All vehicles and machinery operating on the study site are to be checked for oil, fuel or any other fluid leaks before entering the construction areas. All vehicles and machinery must be regularly serviced and maintained before being allowed to enter the construction study site. No fuelling, re-fuelling, vehicle and machinery servicing or maintenance is to take place within 50m of the wetland.

The study site is to contain sufficient safety measures throughout the construction process. Safety measures include (but are not limited) oil spill kits and the availability of fire extinguishers. Additionally, fuel, oil or hazardous substances storage areas must be

bunded at 110% capacity to prevent oil or fuel contamination of the ground and/or nearby wetland, including the associated buffer zone.

No cement mixing is to take place in the wetland. In general, any cement mixing should take place over a bin lined (impermeable) surface or alternatively in the load bin of a vehicle to prevent the mixing of cement with the ground. Cement / concrete can also be trucked in readymix vehicles. Importantly, no mixing of cement or concrete directly on the surface is allowed in the wetland and associated buffer zone.

No "long drop" toilets are allowed on the study site. Suitable temporary chemical sanitation facilities are to be provided. Temporary chemical sanitation facilities must be placed at least 100 meters from any surface water resource(s) where required. Temporary chemical sanitation facilities must be checked regularly for maintenance purposes and cleaned often to prevent spills.

Operational phase potential direct impacts include:

- 1) Impacts Associated with the Loss of Wetland Regulating and Supporting Functions - As per the layout of the complete proposed development (all phases), the wetland will be totally infilled to accommodate portions of the foundations of the various components of the proposed development, and partially for the construction of the attenuation ponds. The drainage dynamics of the landscape will therefore be altered in that drainage on the study site will be directed to the attenuation ponds planned for the proposed development. The attenuation function performed by the wetland will be replaced by the attenuation ponds planned for the proposed development at a surface level. Any excess will be diverted via overland flow into the lower lying landscape mainly via stormwater management systems on adjacent properties. Sub-surface drainage will most likely flow through the landscape to lower lying areas, as opposed to a central location where filtration and biogeochemical cycling previously took place in the wetland. In addition to impacts on water retention and distribution, water quantity impacts will be associated with the proposed development. The amount water held in the landscape by the wetland will be reduced as the soil moisture retention ability of the wetland will be lost and replaced by impermeable surfaces. However, open water captured in the attenuation ponds may be present for variable periods following rainfall events. Overall, the hydrological dynamics and regime of the wetland will be lost and replaced by the attenuation pond facilities. Whilst water may be held temporarily in the attenuation ponds, much of the biological and biogeochemical functionality performed by the wetland will be lost since an artificial structure will replace the natural wetland ecosystem.

Pre-mitigation significance rating is medium and negative. Only with the implementation of a wetland offset plan can the potential impact be offset.

Mitigation measures for operational phase impacts associated with the loss of wetland hydrology include the following:

- **Offset Against Loss of Wetland Habitat:** As the wetland will be destroyed for the proposed development, a wetland offset plan must be put in place and implemented such that there is no “net-loss” of the wetlands in the local area. This will need to be compiled by a suitably qualified wetland specialist for approval by the relevant environmental and water authorities.

- 2) Impacts Associated with the Loss of Wetland Habitat - The loss of wetland habitat will detract from open water habitat for avi-fauna, aquatic habitat for potential aquatic organisms and impact on saturated soil availability for vegetation adapted to wetland conditions. Whilst water may be held temporarily in the attenuation ponds, the wetland habitat will be replaced by artificial structures. From a conservation perspective, the loss of wetland resources at a national (FEPA wetlands & Ecosystem Wetland Vegetation Type) and district level will occur. The loss will negatively affect conservation planning targets to conserve and protect wetlands in the country, as well as at a district (NMBMM conservation planning) level.

Pre-mitigation significance rating is medium and negative. Only with the implementation of a wetland offset plan can the potential impact be offset.

Mitigation measures for operational phase impacts associated with the loss of wetland habitat include the following:

- **Offset Against Loss of Wetland Habitat:** As the wetland will be destroyed for the proposed development, a wetland offset plan must be put in place and implemented such that there is no “net-loss” of the wetlands in the local area. This will need to be compiled by a suitably qualified wetland specialist for approval by the relevant environmental and water authorities.

▪ **Heritage Related Direct Impacts:**

Construction phase potential direct impacts include:

- 1) Impact on Palaeontological Heritage – This will take place should any fossils be disturbed, damaged, destroyed or permanently sealed-in at or below the ground surface and then no longer be available for scientific study. The entire development footprint of the study area is underlain by the Cretaceous aged Sundays River and Kirkwood Formations of the Uitenhage Group. The Palaeontological sensitivity of these areas is rated as very high.

Should the project progress without due care to the possibility of fossils being present at the proposed site within the Sundays River and Kirkwood Formation of the Uitenhage Group, the resultant damage, destruction or inadvertent relocation of any affected fossils will be permanent and irreversible. Thus, any fossils occurring within the site are potentially scientifically and culturally significant and any negative impact

on them would be of high significance (without the implementation of mitigation measures).

Mitigation measures for construction phase impacts on palaeontological heritage include the following:

- It is recommended that a full EIA level palaeontology report be conducted to assess the value and prominence of fossils in the development area and the effect of the proposed development on the palaeontological heritage.
- Depending on the results of the full PIA, it may be recommended that a Palaeontologist should apply for a SAHRA permit and field work would entail surveying, recording and describing fossil heritage, and obtaining relevant data concerning the surrounding sedimentary matrix) and the well preserved fossils must be excavated and sent to a permitted institution. All of the information regarding the process followed must be compiled into a report after fossils have been excavated.
- The recommendations must be included in the EMP of the project.

- 2) Impact on Archaeological Resources – Two (2) isolated Stone Age resources were identified during the fieldwork, having low archaeological significance. All the identified find spots could be impacted by construction activities, however the impact is seen as negligible.

The significance of the impact on archaeological resources during the construction phase is expected to be low negative before mitigation and low negative after mitigation.

No mitigation measure have been provided with regards to the impact on archaeological resources during the construction phase.

- 3) Impact on Unidentified Heritage / Archaeological Resources or Chance Finds - Due mainly to the dense vegetation occurring over the western portion of the area assessed, the possibility of encountering heritage resources in the un-surveyed areas does exist.

The significance of the impact on unidentified heritage / archaeological resources or chance finds during the construction phase is expected to be low negative before mitigation and low negative after mitigation.

Mitigation measures for construction phase impacts on unidentified heritage / archaeological resources or chance finds include the following:

- If any heritage resources are uncovered during construction, a heritage specialist should be contacted to undertake a specialist assessment and make recommendations.

▪ **Palaeontology Related Direct Impacts:**

Pre-construction phase potential direct impacts include:

- 1) Impacts on Palaeontological Heritage – During the pre-construction phase, actions without mitigation according to “Chance Find Protocol” will lead to destruction of and permanent loss of fossils. With mitigation Palaeontological Heritage will benefit by the fact that areas with no outcrop will become available for scientific investigation, albeit for a very limited time. The Phase 1 field assessment revealed the presence of possible vertebrate fossils and it is a known fact that excavation into the Sundays River Formation has a Very High likelihood of exposing significant marine invertebrate palaeo-fauna. Any excavation will either provide a unique opportunity to find new fossils if properly mitigated, or lead to permanent loss of information if not mitigated according to the “Chance Find Protocol”.

Without mitigation, the significant negative impact on Palaeontological Heritage will be Very High during the planning phase. There will be no impact on Palaeontological Heritage during operational and decommissioning phases.

Construction phase potential direct impacts include:

- 1) Impacts on Palaeontological Heritage - During the construction phase, actions without mitigation according to “Chance Find Protocol” will lead to destruction of and permanent loss of fossils. With mitigation Palaeontological Heritage will benefit by the fact that areas with no outcrop will become available for scientific investigation, albeit for a very limited time. The Phase 1 field assessment revealed the presence of possible vertebrate fossils and it is a known fact that excavation into the Sundays River Formation has a Very High likelihood of exposing significant marine invertebrate palaeo-fauna. Any excavation will either provide a unique opportunity to find new fossils if properly mitigated, or lead to permanent loss of information if not mitigated according to the “Chance Find Protocol”.

Without mitigation, the significant negative impact on Palaeontological Heritage will be Very High during the construction phases. There will be no impact on Palaeontological Heritage during operational and decommissioning phases.

Mitigation measures for the pre-construction and construction phase impacts on palaeontological heritage include the following:

- It is essential that the appointed palaeontologist, in consultation with the Project Manager of the Excavation works and SPAR Warehouse Team, develop a short-term strategy for the recovery of significant fossils during the excavation operation. As part of such a strategy, the palaeontologist will have to:
 - *Initially, and at least for the first week of excavation, visit the site at least once to ensure recording of all potentially significant fossil strata.*

- *Determine a short-term strategy and budget for the recording of significant fossils. This Strategy can simply be an oral agreement on when the site is to be inspected and what the finds are that might be recorded. The site visit must include an introduction session with all the managers of the Project Team, including training of the ECO by the appointed palaeontologist to basically know what to look out for in terms of fossil heritage on site.*
- *In the case of any unusual structures, the Palaeontologist must be notified, and a site visit must be arranged at the earliest possible time with the Palaeontologist. In the case of the ECO or the Site Manager becoming aware of suspicious looking material that might be a “Significant Find”, the construction must be halted in that specific area and the Palaeontologist must be given enough time to reach the site and remove the material before excavation continues.*

Mitigation measures normally encountered include:

- Mitigation of palaeontological material must begin as soon as possible and preferably when “trial excavation” takes place. The appointed specialists must acquaint themselves with the operation and determine feasible mitigation strategies.
- A plan for systematic sampling, recording, preliminary sorting and storage of palaeontological and sedimentological samples will be developed during the early stages of the project, in collaboration with the Evolutionary Studies Institute (ESI) at WITS University (or any other registered Institute proposed by ECPHRA which is the closest Institute to the site. If appropriate, the Nelson Mandela Metropolitan University might be asked for their involvement in this project.
- Mitigation will involve an attempt to capture all rare fossils and systematic collection of all fossils discovered. This will take place in conjunction with descriptive, diagrammatic and photographic recording of exposures, also involving sediment samples and samples of both representative and unusual sedimentary or biogenic features. The fossils and contextual samples will be processed (sorted, sub-sampled, labelled, boxed) and documentation consolidated, to create an archive collection from the excavated sites for future researchers.

Exposure of palaeontological material

In the event of construction exposing new palaeontological material, not regarded as normative/routine as outlined in the initial investigation, such as a major fossil find, the following procedure must be adhered to:

- The appointed specialist or alternates (ECPHRA, SAHRA, ESI, WITS University and/or other Institute as applicable) must be notified by the responsible officer (e.g. the ECO or contractor manager), of major or unusual discoveries during excavation, found by the Contractor Staff.

- Should a major in situ occurrence be exposed, excavation will immediately cease in that area so that the discovery is not disturbed or altered in any way until the appointed specialist or scientists from the appropriate Institute and Authority (e.g. ESI at WITS University), or its designated representatives, have had reasonable opportunity to investigate the find. Such work will be at the expense of the Developer.

Indirect impacts:

▪ **Surface Water Related Indirect Impacts:**

Construction phase potential indirect impacts include:

- 1) Impacts to Water Quality - During the construction process, potential contamination impacts as a result of stored oils, fuels, and other hazardous substances or materials being transported via stormwater run-off and / or direct leaks from construction vehicles and machinery entering the wetland can take place. Should this occur, contamination impacts to the wetland are likely to occur.

Some interim mitigation measures can be implemented until such time that the wetland is infilled and off setting is undertaken.

Mitigation measures for construction phase impacts to water quality include the following:

- **Storage of Oils, Fuels and Hazardous Substances / Liquids:** All oils, fuels and hazardous substances or liquids must not be stored within 100m from surface water resources. Where these items are stored, the storage area must be adequately bunded to contain any spillage from containers. Emergency spill kits must be available to clean up and remove spills.
- **Preventing Soil and Surface Water Contamination:** All vehicles and machinery operating on the study site are to be checked for oil, fuel or any other fluid leaks before entering the construction areas. All vehicles and machinery must be regularly serviced and maintained before being allowed to enter the construction study site. No fuelling, re-fuelling, vehicle and machinery servicing or maintenance is to take place within 50m of the wetland.

The study site is to contain sufficient safety measures throughout the construction process. Safety measures include (but are not limited) oil spill kits and the availability of fire extinguishers. Additionally, fuel, oil or hazardous substances storage areas must be bunded at 110% capacity to prevent oil or fuel contamination of the ground and/or nearby wetland, including the associated buffer zone.

No "long drop" toilets are allowed on the study site. Suitable temporary chemical sanitation facilities are to be provided. Temporary chemical sanitation facilities must be placed at least 100 meters from any surface water resource(s) where required.

Temporary chemical sanitation facilities must be checked regularly for maintenance purposes and cleaned often to prevent spills.

Cumulative impacts:

▪ **Heritage Related Cumulative Impacts:**

The Heritage Impact Assessment (HIA) evaluated the possible cumulative impacts (CI) on heritage resources with the addition of the SPAR Warehouse. The evaluation was based on available heritage studies. The evaluation could however not take the findings of outstanding studies on current on-going EIA's in consideration.

Since most of the previous heritage studies for the surrounding area noted that the landscape has been disturbed severely in the past, and most of them recorded only isolated archaeological resources, together with the study area itself being located within an industrial area, the CI on heritage resources for the general area is deemed to be low for archaeological resources. However, the CI for palaeontological resources would be medium-high due to the highly disturbed nature of the surrounding area and the very high sensitivity recorded for palaeontological resources.

Construction phase potential cumulative impacts include:

- 1) Cumulative Impact on Archaeological Resources – The addition of the proposed development is expected to contribute to the overall cumulative impacts in the region on heritage / archaeological resources as a number of other buildings, structures, warehouses, distribution centres etc. have been constructed within the surrounding area.

It is the heritage specialist's reserved but considered opinion that this additional load on the overall impact on heritage resources will be low. With a detailed and comprehensive regional dataset this rating could possibly be adjusted and more accurate.

The significance of the cumulative impact on archaeological resources will be negative low impact before mitigation and low negative after mitigation.

No mitigation have been provided with regards to the construction phase cumulative impacts on archaeological resources.

- 2) Cumulative impact on Palaeontological Resources – The addition of the proposed development is expected to contribute to the overall cumulative impacts in the region on heritage / palaeontological resources as a number of other buildings, structures, warehouses, distribution centres etc. have been constructed within the surrounding area.

It is the heritage specialist's reserved but considered opinion that the additional load on the overall impact on palaeontological resources will be medium to high. However, this

will depend on the results of the full PIA study. With a detailed and comprehensive regional dataset this rating could possibly be adjusted and more accurate.

The significance of the cumulative impact on palaeontological resources will be medium to high negative before mitigation. Appropriate mitigation measures could however adjust the significance rating to medium to low negative.

No mitigation have been provided with regards to the construction phase cumulative impacts on palaeontological resources.

▪ **Biodiversity Related Cumulative Impacts**

Should the mitigation measures as set out in the Biodiversity specialist report be adhered to and implemented, no significant latent and/or cumulative impacts on the receiving terrestrial ecological environment are deemed likely.

8 ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Alternative A (preferred alternative)

<p>Biodiversity</p>	<p>During the field assessment, three (3) habitat units were observed within the boundaries of the study area, namely Degraded Sundays Thicket, Transformed habitat and Wetland habitat. Limited areas of Sundays Thicket remain, and the habitat integrity has been degraded by land uses such as intensive livestock grazing and subsistence agriculture. The Wetland habitat unit has been severely degraded by dumping of rubble and discharge from urban storm water runoff. The Transformed habitat unit has been severely degraded by vegetation clearance, rubble dumping, edge effects associated with industrial activities, alien floral invasion and subsistence agriculture;</p> <p>One (1) floral Species of Conservation Concern (SCC), namely <i>Sideroxylon inerme</i> (milkwood) was observed during the site assessment. This species is protected under the National Forest Act (1998).</p>
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	<p>In terms of the faunal scan:</p> <ul style="list-style-type: none"> • The species observed comprised mainly of common faunal species, particularly those that are adept at living and inhabiting areas in close proximity to human developments. Species encountered during the field assessment included <i>Telophorus zeylonus</i> (Bokmakierie), <i>Numida meleagris</i> (Helmeted Guineafowl) and <i>Rattus rattus</i> (Common Rat). During the site investigation, no faunal SCC were observed. • Due to the degraded nature of the study area, specialized habitat requirements of most faunal SCC, distribution ranges and high levels of anthropogenic activity, it is deemed unlikely that any SCC will occur within the study area at present; • During the palaeontological site assessment, <i>Chersina angulata</i> (Angulate Tortoise), was encountered. This species is listed as Least Concern by the IUCN and is not threatened. It is however listed in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) which regulates the trade of this species. However, rescue and relocation of this species will not require any permits. <p>In terms of the Terrestrial Impact Assessment:</p> <ul style="list-style-type: none"> • Prior to mitigation, the impacts on floral and faunal SCC are low significance impacts. If effective mitigation takes place, all impacts may be reduced to very-low significance impacts. <p>In terms of Sensitivity:</p> <ul style="list-style-type: none"> • The wetland identified on site and the associated biodiversity was found to have moderate sensitivity, while the Degraded Sundays Thicket habitat unit was found to have an intermediate sensitivity. In addition, the transformed areas on site were deemed to have a low sensitivity. <p>Based on the findings of the ecological assessment, it is the opinion of the ecologists that the proposed project be considered favorably. However, all mitigation measures and recommendations presented in this report should be adhered to as to ensure the ecology within the proposed disturbance areas as well as surrounding zone of influence is protected or adequately rehabilitated in order to minimize the deviations from the Present Ecological State.</p>
Surface Water	<p>Ultimately, it was found that there is one (1) depression wetland on the study site and no other wetlands within a 500m radius of the study site. Following the delineation process, the depression</p>

wetland was measured to be 1.1 hectares in extent, with a perimeter of 482m. The wetland is considered ecological important at a desktop level due to the classification of the wetland as a Wetland FEPA and part of a wetland cluster according to the NFEPA (2011) database.

As the wetland will be lost, no buffer zone was implemented.

With regards to the Present Ecological Status (PES) of the wetland:

- Assessed to fall within a Class D with a score of 4.36 indicating that the wetland is largely modified (40-60% modification).
- Factors identified contributing to the degraded hydrological status at a catchment level included increased surface run-off from the surrounding catchment (most notably stormwater outlets from the Kwamagxaki residential area to the south, and reduced surface roughness).
- At site specific level, changes to water distribution and retention within the wetland were noted as a result of changes in surface roughness (including removal of vegetation, establishment of dirt roads and overgrazing) and dumping. Furthermore, excavation of furrows to divert water out of the wetland were also identified to reduce the retention ability of the wetland.
- From a vegetation perspective, contributing factors affecting the ecological state included the influx of sediment from the stormwater outlets, infilling of rubble material, deposition of litter and other substances in the wetland, as well as overgrazing from cattle due to subsistence agriculture in the area.

With regards to the wetland ecosystem services:

- The depression wetland scored highest in terms of sediment trapping and toxicant removal followed closely by phosphate trapping and nitrate removal.
- The scores, however, only scored to a moderate level.
- Overall, the wetland ecosystem services scored to a moderate level for those which scored highest.
- All other wetland ecosystem services scored fairly low. This was mainly due to the largely degraded present ecological state of the wetland.

With regards to the EISC for the depression wetland:

- The results showed that the depression wetland was categorised as a Class C (Moderate).

- The wetland is classified at a national level as a Wetland FEPA, identified within the NFEPA (2011) database.
- The wetland vegetation type is classed as Endangered at a National (Mucina & Rutherford, 2006) and District level (NMBMM, 2010).
- Therefore, whilst the main potential functions of the depression wetland is the ability of the wetland to perform a functional role in terms of sediment trapping, attenuation of storm water, energy dissipation and particulate removal for the study site, the importance in terms of conservation planning is the most significant factor of the wetland.
- This is due to the fact that the wetland is a wetland FEPA, and is considered nationally endangered and critically endangered locally.

In terms of potentially applicable environmental and water related legislation:

- Several listed activities and water uses have been identified that are likely to be applicable to the proposed development.
- Accordingly, in terms of NEMA (1998) and the EIA Regulations (2014), Activities 12 and 19 of Government Notice 983, were identified as being applicable.
- With respect to the National Water Act (NWA) (1998), water uses (c) and (i) were identified as being applicable.

Foreseen potential negative impacts in terms of the proposed development were identified and assessed. The potential construction related impacts related to geomorphological (-34 medium pre- and post-mitigation impact rating) and water quality impacts (-33 medium pre- and post-mitigation impact rating). The transitory potential construction impacts will eventually get overridden by the eventual loss of the wetland due to infill and transformation into the various proposed development components and attenuation ponds. The operational impacts identified included loss of wetland regulating and supporting functions (-36 medium pre- and post-mitigation impact rating) and loss of wetland habitat (-40 medium pre- and post-mitigation impact rating).

It is understood that due to limited space (based on the entire project and additional future phases to be constructed), the current layout and project components cannot be altered such that the proposed development can avoid the wetland. As a result, the proposed development will need to involve the infill of the wetland in order to facilitate construction.

<p>Heritage (including desktop Palaeontological Impact Assessment)</p>	<p>The archival research undertaken for the project indicated that there was not expected to be any significant archaeological or historical resources present on the study area.</p> <p>The subsequent field work completed for the HIA component has confirmed that two (2) heritage sites / find spots were identified within the project study area.</p> <p>In terms of heritage site / find spots:</p> <ul style="list-style-type: none"> • The identified heritage sites / find spots included two (2) lithic artefacts, both out of context. • The first was an Earlier Stone Age (ESA) chopper which was found on top of a recently backfilled excavation. • The second a Middle Stone Age (MSA) core which was a surface find. • None of these constitutes an archaeological site. • No other archaeological material or sites were identified during the field survey. <p>Since only two (2) isolated archaeological find spots were recorded, which are considered to be of low to negligible significance, no mitigation measures will be required.</p> <p>In terms of the Desktop Paleontological Impact Assessment (PIA):</p> <ul style="list-style-type: none"> • The desktop PIA indicated that the development footprint of the study area is underlain by the Cretaceous aged Sundays River and Kirkwood Formations of the Uitenhage Group. • The Palaeontological sensitivity of these areas is rated at a desktop level as very high and a full EIA level assessment was undertaken for further detail (information provided under Palaeontology below). <p>The Heritage specialist study revealed that majority of the identified impacts were rated as having low negative significance after the implementation of mitigation measures. It should however be noted that the cumulative impact on Palaeontological Resources was rated as having a medium to low negative significance after the implementation of mitigation measures.</p> <p>Despite the presence of the above-mentioned paleontologically sensitive areas, no fatal flaws have been identified from a palaeontology perspective and no significant legislative implications are therefore anticipated.</p>
<p>Palaeontology (full EIA level)</p>	<p>The full EIA level Palaeontological Impact Assessment (PIA) was undertaken as a separate study following the Heritage desktop</p>

<p>Palaeontological Impact Assessment)</p>	<p>assessment which identified the Cretaceous aged Sundays River and Kirkwood Formations of the Uitenhage Group which are regarded as very highly sensitive areas. As such, this PIA forms part of the Heritage Impact Assessment (HIA) and complies with the requirements of the South African National Heritage Resource Act No 25 of 1999.</p> <p>In terms of Palaeontological Sensitivity:</p> <ul style="list-style-type: none"> • The detailed fieldwork confirmed that the study area for the proposed study site is mainly underlain by Cretaceous aged sedimentary rocks of the Sundays River Formation, Uitenhage Group and Tertiary to Quaternary aged Intermediate and Low Level Fluvial Gravel of the Swartkops River. • These Cretaceous to Quaternary aged sedimentary rocks weather into very clay rich soils that characterize the study area, with very high groundwater levels in the gravel beds. <p>In terms of Palaeontological findings:</p> <ul style="list-style-type: none"> • Several possible mineralized (expected to be “fossilized”) bones may occur with hundreds of clearly defined much younger bones within the study site. • Although suspiciously fossilsiferous, the bone material found associated with Tertiary aged gravels might be related to recent (1968-69 flooding in the area and the HIA took note of this fact. • A Very High Palaeontological sensitivity is allocated to areas underlain by the Fossilsiferous Cretaceous aged marine deposits of the Sundays River Formation and a High Palaeontological sensitivity to areas underlain Low Level Gravels of Tertiary to Quaternary age. <p>The impact assessment for the EIA level PIA revealed that the impact on Palaeontological Heritage was rated as having a high positive significance after the implementation of mitigation measures.</p> <p>Despite the presence of the above-mentioned paleontologically sensitive areas, no fatal flaws have been identified from a palaeontology perspective and no significant legislative implications are therefore anticipated.</p>
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It is SiVEST’s opinion that the impacts associated with the proposed development are not significant enough to prevent the project from proceeding and that an EA should be granted. The existing industrial area which is located adjacent to the proposed project site, as well as the

nearby residential communities, have transformed and/or altered the natural character of the surrounding environment significantly and given it a more industrial and/or urban character. Additionally, due to the fact that the proposed project site is situated adjacent to other existing warehouses and/or distribution centres, the proposed development also fits in with the current activities taking place on site. The impacts anticipated as a result of the proposed development are thus likely to be similar to the current impacts taking place on site as a result of the other existing operations. The surrounding receptors are therefore not expected to be significantly affected as a result of the proposed development.

The respective specialist studies which were undertaken have indicated that no fatal flaws exist as a result of the proposed development. In addition, SiVEST is of the opinion that the impacts associated with the construction and operation phases can be mitigated to acceptable levels, provided the recommended mitigation measures and/or specialist recommendations are implemented.

No-go alternative (compulsory)

The “no-go” option is the option of not undertaking the proposed development. The proposed development is being proposed in order to house the increase in SPAR’s operational demands due to national and regional growth. SPAR Eastern Cape has outgrown their current Distribution Centre in Perseverance and therefore need to find a new site to establish a new distribution centre. The new site has to accommodate SPAR’s 20 year expansion plan and must also be in close proximity to the existing Distribution Centre. The proposed project site identified is an undeveloped erf that is located in the same street as SPAR’s existing Distribution Centre, thus fulfilling their need of having a large site to accommodate their expansion plans as well as being close to the existing Distribution Centre. The proposed development will increase the extent of SPAR’s operations within the area, as well as bolster the business development within the area. The proposed development can be considered to be in the best interest of both SPAR, as well as the surrounding local communities, as it has the potential to increase profits for SPAR and contribute to employment opportunities for members of the local communities. Should the “no-go” option be selected, the above mentioned socio-economic benefits would not be realised.

SECTION E: RECOMMENDATIONS OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?

YES ✓

Is an EMPr attached?

YES ✓

The EMPr must be attached as Appendix F.

An Environmental Management Programme (EMPr) in attached as **Appendix F**.

If “NO”, indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment):

If “YES”, please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

The following Biodiversity related recommendations / mitigation measures should be considered for inclusion in the authorisation that may be granted by the competent authority in respect of the application:

- *Sideroxylon inerme* (milkwood) was observed during the site assessment. This species is protected under the National Forest Act (1998). In terms of this act, protected tree species may not be cut, disturbed, damaged or destroyed and their products may not be possessed, collected, removed, transported, exported, donated, purchased or sold - except under licence granted by the Department of Water and Sanitation (DWS) (or a delegated authority). As the majority of the trees are relatively small and easy to transplant because the soil is sandy, it is recommended that the trees are incorporated as part of the landscaping of the proposed development, after obtaining the relevant permits;
- It is recommended that a rescue and relocation operation is implemented for *Chersina angulata* (Angulate Tortoise) prior to any site clearing activities taking place and that all tortoises be relocated to the nearby Zwartkops Valley Nature Reserve;
- Should any other floral or faunal SCC be encountered within the development footprint during the construction or operational phase, the following should be ensured:
 - Effective conservation/relocation of individuals to suitable similar habitat in the vicinity of the area from where they have been removed must be ensured; and\
 - All rescue and relocation plans should be overseen by a suitably qualified specialist.
- Alien vegetation as listed in Appendix F of the biodiversity specialist report must be removed from the footprint area during the construction phase, with specific mention of

Category 1b species in line with the NEMBA Alien and Invasive Species Regulations (2016).

The following Surface Water related recommendations / mitigation measures should be considered for inclusion in the authorisation that may be granted by the competent authority in respect of the application:

- A suitable wetland offset plan that is acceptable and approved by the DWS and DEDEA must be compiled and implemented. The wetland offset plan must be put in place and implemented in order to ensure that there is no “net-loss” of the wetlands in the local area. This will need to be compiled by a suitably qualified wetland specialist for approval by the relevant environmental and water authorities. The wetland offset plan must be undertaken in accordance with the Wetland Offset Guidelines (Macfarlane et al., 2016).
- A WULA process will need to be undertaken in accordance with Chapter 4 Part 1 Section 21 of the National Water Act, 1998 (Act No. 36 of 1998) whereby the following water uses will be applied for:
 - c) Impeding or diverting the flow of water in a watercourse;
 - i) Altering the bed, banks, course or characteristics of a watercourse.

The following Heritage related recommendations / mitigation measures should be considered for inclusion in the authorisation that may be granted by the competent authority in respect of the application:

- If any heritage resources are uncovered during construction, a heritage specialist should be contacted to undertake a specialist assessment and make recommendations.

The following Palaeontology related recommendations / mitigation measures should be considered for inclusion in the authorisation that may be granted by the competent authority in respect of the application:

- The EAP and ECO must be informed of the fact that a Very High Palaeontological Sensitivity was allocated to the greater part of the development. The discovery of “suspiciously heavy bones” and other material, significant fossil finds are expected at the start of excavations for foundations;
- The entire team at the construction site must be introduced to Palaeontological material that is likely to be found on site. It is best to pre-arrange a once-off information session with the Palaeontological specialist, to present a simple and understandable (preferably audio-visual presentation in an “interpreted voice”) of the majority of the contractual workers on site during the initial site visit that must form part of the EMPr for the project;
- The “Chance Find Protocol” needs to be included in the EMPr of the project and a reasonable budget need to be allocated, to ensure compliance with the legal

responsibility of the developer in terms of the proper conservation of and storage of Palaeontological Heritage.

- The ECPHRA and SAHRA must be informed of the content of the “Chance Find Protocol” and EMPr arrangements by the EAP or the developer, for final approval of the ROD documentation during the EIA process;
- It is essential that the appointed palaeontologist, in consultation with the Project Manager of the excavation works and SPAR Warehouse Team, develop a short-term strategy for the recovery of significant fossils during the excavation operation. As part of such a strategy, the palaeontologist will have to:
 - Initially, and at least for the first week of excavation, visit the site at least once to ensure recording of all potentially significant fossil strata;
 - Determine a short-term strategy and budget for the recording of significant fossils. This Strategy can simply be an oral agreement on when the site is to be inspected and what the finds are that might be recorded. The site visit must include an introduction session with all the managers of the Project Team, including training of the ECO by the appointed palaeontologist to basically know what to look out for in terms of fossil heritage on site; and
 - In the case of any unusual structures, the Palaeontologist must be notified, and a site visit must be arranged at the earliest possible time with the Palaeontologist. In the case of the ECO or the Site Manager becoming aware of suspicious looking material that might be a “Significant Find”, the construction must be halted in that specific area and the Palaeontologist must be given enough time to reach the site and remove the material before excavation continues.

SECTION F: APPENDICES

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

Appendix E: Comments and responses report

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Other information

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