



BASIC ASSESSMENT REPORT

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

NOVEMBER 2019

[Report Submitted in February 2024]

| (For official use only) | |
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| Pre-application Reference Number (if applicable): | |
| EIA Application Reference Number: | |
| NEAS Reference Number: | |
| Exemption Reference Number (if applicable): | |
| Date BAR received by Department: | |
| Date BAR received by Directorate: | |
| Date BAR received by Case Officer: | |

GENERAL PROJECT DESCRIPTION

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

**Proposed Phase 2 IRT Wynberg Bus Depot and Associated Infrastructure on
portions of Erf 91191, Erf 90470 and Erf 90475-RE, Wynberg, City of Cape Town,
Western Province.**

Post-Application Draft Basic Assessment Report (BAR)
for Public Review

DEA&DP Pre - Application Reference Number: 16/3/3/6/7/1/A6/96/2034/21

DEA&DP Application Reference Number: 16/3/3/1/A6/96/2008/24

Heritage Western Cape Case Number: 21040905SB0409E

Department of Water and Sanitation (DWS) Reference Number: 01/G22D/CI/12144

February 2024

Please Note: This is the post-application Draft Basic Assessment Report (BAR). The pre-application Draft BAR has been subject to previous public review. Where changes have been made to the draft BAR following the pre-application public review, these have been underlined for ease of reference.

EXECUTIVE SUMMARY

INTRODUCTION

This is the post-application Draft Basic Assessment Report (BAR) (which has all specialist reports appended to it) which is being circulated for a third round of public review and comment for 30 days from 23rd of February 2024 to 25 March 2024. The previous 2 versions of this Draft BAR underwent public review for a period of 60 days in 2021 (pre-application draft BAR), and 30 days in 2023 (post application Draft BAR) after which comments received were considered, responded to and changes/updates made to the most recent iteration of the DBAR.

The Pre-application draft BAR underwent public review for a period of sixty days due to One Environment System. During this period, the Department of Water and Sanitation had confirmed that a Water Use License Application (WULA) applied to the proposed development and that Sections 21 (c) and (i) of the NWA were triggered. As such, in line with the NWA, a sixty-day commenting period was provided.

This report has been compiled as part of the integrated Basic Assessment process for the application for Environmental Authorisation in terms of the National Environmental Management Act (No. 107 of 1999), as amended (NEMA) and the associated Environmental Impact Assessment (EIA) Regulations, 2014 (as amended) for a proposed bus depot and associated infrastructure on a portion of Erf 91191, Erf 90470 & Erf 90475-RE, Wynberg. It provides information on the proposed development, Listed Activities triggered (which determines the need for an Environmental Authorisation), the site and various natural, built, cultural, and social environmental considerations, as well as specialist studies undertaken, their findings and recommendations.

Following this public review period, the BAR will again be updated with comments received, finalised, and then submitted to the Competent Authority, the Department of Environmental Affairs & Development Planning (DEA&DP) for decision-making.

PREVIOUS APPLICATION PROCESS

As noted above, this is the third version of the Draft BAR which has previously undergone public review via a pre-application process in 2021 and a withdrawn application process in 2023. The details thereof are noted below:

- The Pre-Application Draft Basic Assessment Report (BAR) for the proposed development was released on 21st July 2021 to 20th September 2021. Proof of Public Participation, I&AP registrations, Stakeholder and Authority engagements, as well as comments and responses have been recorded within this BAR.
- The Post Application Draft BAR and Application for the proposed development was submitted on 2nd May 2023 and public participation ran until 3rd June 2023. Proof of public participation, I&AP registrations, Stakeholder and Authority engagements, as well as comments and responses from the first iteration of the Draft BAR have been recorded within this BAR.
- On 10th of July 2023, a meeting was held with DEA&DP: Development Management and Pollutions and Chemicals, where the applicant, City of Cape Town, via Chand Consultants, were instructed to withdraw the application for Environmental Authorisation pending further testing and conclusion of the Part 8 Land Contamination from the DEA&DP.
- On the 21st of December 2023, a Remediation Order was issued by DEA&DP under Section 38(3) of the National Environmental Management: Waste Act (Act 59 of 2008) for the contamination of the Wynberg waste dumping site on Erven 90475/RE, 90470 and 91191, Wetton Road, Wynberg (Reference number: 19/3/5/39), thus concluding the Part 8 Land Contamination process.

As such, a new application for Environmental Authorisation and Draft BAR has been submitted to the DEA&DP and released for public review and comment.

PROJECT DESCRIPTION

The City of Cape Town (CCT) intends to develop a network of routes in which public transport bus services can operate (referred to as the Integrated Rapid Transport (IRT) System). As part of its Integrated Rapid Transport (IRT) project, the CCT proposes the construction of a bus depot and associated infrastructure in Wynberg, Cape Town (refer to **Figure i** for location of the study area). Chand Consultants was appointed for the application for Environmental Authorisation required in terms of the NEMA EIA Regulations (2014, as amended) and the Water Use License in terms of the National Water Act.

The proposed development, shown above in **Figure ii**, is for a bus depot, within the limits of the development footprint Alternative 2, noting that the proposed site plan is depicted below.

The proposed development would comprise a large, paved staging area where buses would be stored overnight (up to about 61 buses in the long-term) or until use, administrative and maintenance buildings/structures, and access routes. The assessment scope includes the realignment and formalisation of the Bonnytown access road. The depot would provide for up to approximately 202 buses (noting that there would be capacity for up to 202-day time staging and for up to 61 overnight staging buses). The detailed design of the proposed depot is yet to be determined and will be included in the Final Basic Assessment Report, however, the final layout and design has been submitted with this report and it is important to note the following basic components will likely apply:

- Re-alignment of the Bonnytown access road to the west of the proposed depot.
- Refueling area (2 x underground diesel storage tank with capacity of 14m³ each) which would include a refueling office and an additional AdBlue Store area (to hold an approximately 280 litre tank- i.e., 1% of fuel storage capacity);
- Wash bay (manual wash only), including support buildings (potentially with automated wash bays as well as deep clean wash bays and all water used in the wash bay would be recycled);
- Parking area (staff and visitors);
- Workshops (where vehicle maintenance and repairs would occur);
- Possible spray booth with the following typical components for a closed system;
- Spray Booth Structure, manufactured from insulated panels (Rock Wool or EPS);
 - Air Intake Systems;
 - Air Intake Filtration System;
 - Air Extraction Systems;
 - Entrance and Exit Doors at opposing ends of spray booth;
 - Heating Systems which automatically regulate the internal temperature during spray painting mode;
 - Ceiling and Side Wall Lights; and
 - Electrical Control System.
- Admin buildings for drivers and staff (e.g., driver dispatch facility, driver mess and recreational facilities);
- Security buildings at the main entrance;
- Double-fencing around perimeter;
- Landscaped areas around the depot;
- Stormwater drainage and attenuation infrastructure; and
- Emergency Exit Road.

Access would be off Wetton Road and there would be two embayments for drop-off/pick-up purposes. Note that the Wetton Road/Racecourse Access Road intersection would be upgraded and signalised if it is not already done by the time the development of the proposed development commences.

Stormwater management on site would occur within the limits of the proposed development footprint. The intention is to capture the stormwater generated on site in permeable pavers and run these to a stormwater pond in the north-east corner of the site. The pond would treat the stormwater to acceptable quality standards for discharge into the wetlands to the east of the site.

Connection would be made to existing electrical, water and sanitation services in the area, all of which have been confirmed to have capacity by the City of Cape Town. Refuse removal would be provided by private contractor.

Boreholes would also be located throughout the site for groundwater quality monitoring during the pre-construction and operational phase. These would not be used for water abstraction purposes, and only monitoring.

The depot would also be landscaped with key wetland species around the stormwater pond, and CFSF representative species for the remainder of the site.

LEGAL TRIGGERS:

National Environmental Management Act (No. 107 of 1998), as amended (NEMA)

With respect to the **National Environmental Management Act** (No. 107 of 1998), as amended (NEMA) and associated Environmental Impact Assessment (EIA) Regulations, 2014 (as amended) and associated **Listed Activities**, the following aspects of the proposed development, preferred alternative (i.e., Alternative 2) are important:

- Much of the site is located within a wetland, albeit a degraded wetland. Infilling of this wetland would be required in order to achieve the proposed development.
- The emergency road as well as the relocated Bonnytown access road to the west of the site would be constructed in an area which is confirmed to be an "Other Ecological Support Area" (OESA) as well as Public Open Space and a buffer zone, therefore this listed activity is included given that exact measurements would be confirmed in detail design, noting that they would both be relatively short roads.
- The site is mapped as a critically endangered ecosystem and is located within City of Cape Town's EMF as wetlands and buffer areas. The site is also zoned as Public Open Space. The site has been assessed by a botanist and the assessment indicates that it is highly transformed with limited indigenous vegetation. However, it is likely that 300m² in total (although sporadically spread throughout the site) may need to be cleared.
- The site is zoned Public Open Space and is located within wetland and buffer zones denoted in terms of the City of Cape Town EMF. The proposed development would also be larger than 1000m².

Therefore, Listed Activity 19 of Listing Notice 1 as well as Activities 4, 12, and 15 of Listing Notice 3 would be triggered.

National Water Act (No. 36 of 1998) (NWA)

The Department of Water and Sanitation (DWS) has also confirmed that the proposed development must be authorised under a Water Use License for Section 21 (c) and (l) of the National Water Act (No. 36 of 1998) (NWA). A Water Use License has been issued and can be found under **Appendix E**.

National Environmental Management: Waste Act (No. 59 of 2008) (NEM:WA)

The site has also been used as an illegal dumping site for decades, and engagement with DEA&DP: Pollution and Chemicals Management has been initiated in terms of Part 8 of the National Environmental Management: Waste Act (No. 59 of 2008) (NEM:WA) who has identified the site as an Investigation Area. On the 21st of December 2023, a Remediation Order was issued by DEA&DP under Section 38(3) of the National Environmental Management: Waste Act (Act 59 of 2008) for the contamination of the Wynberg waste dumping site on Erven 90475/RE, 90470 and 91191, Wetton Road, Wynberg (Reference number: 19/3/5/39) (refer to **Appendix P8**). Within the Remediation Order the Department decided that the investigation area is deemed contaminated, presents an immediate risk, and that measures are required to monitor and manage the risk. Several pre-construction and ongoing monitoring measures to be undertaken manage the risk were conditioned within the Remediation Order. These measures have been included within **Section I2** below of this report and the EMPr.

DEA&DP Waste Management have confirmed that a Waste Management License will not be necessary in this regard. A set of pre-construction, construction and operational tests for groundwater, soil and freshwater quality will be conducted for monitoring and record keeping purposes.

ALTERNATIVES:

Alternatives have been assessed in the form of the preferred development footprint alternative (i.e. Alternative 2), an alternative development footprint (i.e. Alternative 1) and the no-go or no-development alternative. In addition, alternatives within preferred development alternative have also been considered in terms of stormwater management, as well as the best practicable remediation/ground stabilisation approach. In terms of the development alternatives assessed, many of the impact would be the same across both (e.g. socio-economic, traffic, freshwater, faunal, botanical, MHI risk, groundwater, heritage and agricultural), but there has been a clear preference from a faunal perspective for the preferred alternative (Alternative 2) and the footprint has been devised in order to avoid the less degraded wetland areas and moderate SEI faunal habitat, and to provide a slightly comparatively wider faunal movement corridor for the Western Leopard Toad (WLT) (noting this is potential as no WLT were identified during the faunal assessment, but it has still been assumed that they use the site for movement and foraging). It is also comparatively narrower in the south-west corner in order to avoid any Bonnytoun informal settlement structures. Therefore, Alternative 2 is preferred. The no-go alternative has also been assessed as the *status quo* of the site would continue as is. The no-go alternative is not preferred as it in itself holds negative impacts from an ecological perspective which are largely similar to the proposed development (except for the medium negative faunal impact associated with the reduction in WLT corridor and low to medium negative groundwater impacts) and so the conditions on site do not preclude development of the proposed depot as indicated in the preferred alternative, with implementation of mitigation as these impacts can be mitigated to acceptable levels (noting that the Medium negative faunal impact is acceptable in terms of the SEI for the SCC of the site). There are positive socio-economic impacts that would be foregone, and the provision of the bus services would be hampered.

BASELINE ENVIRONMENT

Geology/Soils/Geotechnical:

Soil is largely described as "slightly clayey sand", the soils classify as SM-SC or SC (Brown & Engelsman, 2020). The published geological map of the area indicates that the site is underlain by recent Quaternary deposits, underlain by clayey decomposed granite and granite at depth below the site (Brown & Engelsman, 2020). The soil profile at the site is characterised by variable fill material overlying naturally transported in situ soils. The layers of refuse in the overlying fill make the founding conditions potentially problematic in terms of settlement/differential settlement and remedial measures will have to be undertaken to reduce the amount of potential settlement/differential settlement (Brown & Engelsman, 2020). The old refuse layer beneath the more recent fill material is the layer which is more prone to settlement, and it will be very difficult to improve the compaction within this layer (due to the depth and the saturated conditions) (Brown & Engelsman, 2020). The refuse layer was found to vary in thickness between about 0.3 m and about 1.2 m, with a probable average thickness in the order of about 0.8 m (although some thicker refuse layers are likely to be present) (Brown & Engelsman, 2020).

Topography:

The proposed Wynberg Depot site has an existing moderate overland slope of 0.60%, draining in a north-easterly direction toward the existing low-lying area adjacent to Kromboom Parkway (M5) (Saunders *et al*, 2021).

Botany:

The site is completely (+99%) covered with exotic grass and invasive alien plants (IAP's), there is almost no indigenous species present (let alone cover) thus no species of conservation concern and being a non-ecologically managed open space within an urban environment there is no natural fire regime (NCC, 2021). The soil and water profiles are also highly transformed and therefore, as highly sensitive factors for the survival CFSF, this renders the site irreversibly modified and completely unsuitable for CFSF to persist (NCC, 2021).

Freshwater:

The impermeable nature of the dumped material seems to have formed wetland conditions across large parts of this raised area (where wetlands would not ordinarily be expected) allowing establishment of wetland obligate¹ vegetation (Steytler & Mugabe, 2021). Whereas the entire study area is highly impacted and transformed, distinction is drawn between more sensitive (less degraded) and less sensitive

¹ Plants that occur almost always (estimated probability >99%) in wetlands under natural conditions, but which may also occur rarely (estimated probability <1%) in non-wetlands.

(degraded) portions on the basis of remnant natural habitat and degree of soil disturbance (i.e., dumped waste and infilling) (Steytler & Mugabe, 2021). These two markedly differing portions of the wetland have been categorised as 'less degraded' and 'degraded' (Steytler & Mugabe, 2021). The development footprint for the preferred alternative for the proposed bus depot has been devised to remain solely within the "less degraded" wetland identified by Steytler & Mugabe (2021). The degraded wetland (which is where the limits of the preferred alternative would be located) provides moderately low WET-Ecoservices, has a category E PES and low/marginal EIS. The less degraded wetland (which is not within the limits of the preferred alternative development footprint but lies adjacent to the east) provides moderately low WET-Ecoservices, has a category D PES and moderate EIS.

Faunal:

Both the less degraded and the degraded depression wetlands on site are considered to have a very low SEI at habitat level (Jackson & Martin, 2021). Under this rating, development activities of 'Medium' to 'High' impact are acceptable but with minimisation and restoration mitigation (Jackson & Martin, 2021). The project area has a High RR and thus a Medium SEI (Jackson & Martin, 2021).

In terms of the value of the site as a corridor, it is worth noting that the intact and important pockets of Cape Flats Sand Fynbos at neighbouring sites at the Kenilworth Racecourse Conservation Area and Youngsfield Military Base are of ecological importance (Jackson & Martin, 2021). These areas may form part of the corridor that provides a refugia for important species and facilitates the movement of species within an urban area (refer to Figure n) (Jackson & Martin, 2021). However, **the project area occurs just outside of the formalised biodiversity corridors in the City of Cape Town** (Jackson & Martin, 2021). Notwithstanding the above, the precautionary principal is applied, and it has been found that the WLT may use the site and adjacent area to access non-breeding sites (or for foraging grounds) as individuals have been found north of the project area while the breeding site is south of the project area (Jackson & Martin, 2021). Note also that this is the only terrestrial vertebrate species of conservation concern (SCCC), that may be impacted by the proposed development.

The impact is assessed as moderate (-)/ Medium (-) with mitigation (Jackson & Martin, 2021). This aligns with impacts considered acceptable in terms of the SEI ascribed to this SCC through the faunal impact assessment. It is important to note that the proposed development would only remove a portion of the corridor leaving a width of 65m at its narrowest point in the south and 325m at its widest on Wetton Road (Jackson & Martin, 2021). Disturbance to faunal species during operation is also assessed by the faunal specialist and the impacts are found to be Low (-) with mitigation, noting that the degraded area offers little ecological function, and the less degraded area maintains some functionality albeit very low (Jackson & Martin, 2021). It may function as a corridor but if the portion of degraded wetland were to be lost, this would have little impact on the function of the corridor (Jackson & Martin, 2021).

In terms of impacts on fauna, four faunal groupings were looked at by a faunal specialist; amphibians, reptiles, mammals, and avifauna. Overall, an SEI of Medium is applied to the WLT on site and for this rating, medium impacts for development are acceptable provided that restoration occurs (Jackson & Martin, 2021). 'Low to Medium' SEI considers 'Medium' impacts acceptable for development activities provided that restoration activities are implemented (Jackson & Martin, 2021).

Although not likely to be found on site, as species of conservation concern, assessments were also completed for the Cape Platanna, Micro Frog, and Black Harrier, all of which were found to have 'Very Low' SEI which means that 'Medium to High' impacts would be considered acceptable with no need for restoration (Jackson & Martin, 2021).

The project area may be used to access nonbreeding sites or act as a non-breeding site (Jackson & Martin, 2021). **No WLT were found breeding in the inundated wetland areas within the project area** (Jackson & Martin, 2021), noting that the specialist specifically carried out a field survey during the breeding season of 2020.

Agricultural:

There are no agricultural resources on or near the site that would be affected by the proposed development.

Groundwater:

The site is located within the Table Mountain Strategic Water Source Area (SWSA) for surface water and the Cape Peninsula and Cape Flats SWSA for groundwater. The underlying aquifer is classified as an intergranular and fractured with an average yield potential 0.0 – 0.1L/s (Naicker & Muller, 2021). The aquifer vulnerability to contamination is mapped as being "high". This rating is likely associated with the mapped, flat-lying, unconsolidated alluvial material which is highly susceptible to point and non-point sources contamination (Naicker & Muller, 2021). The average depth to groundwater is confirmed approximately 2.5 mbgl on average across the site (Naicker & Muller, 2021).

Heritage/cultural/archaeological aspects:

There are no heritage resources on or nearby the site that would be affected by the proposed development.

Noise:

No sensitive noise receptors were identified near the site, other than the Bonnytoun informal settlement.

MHI Risk:

There are no nearby hazardous installations that would pose a risk to the proposed development.

Traffic/Transport:

Analyses indicates that the Wetton Road / Rosmead Avenue intersection currently operate well, with the exception of the right-turn movement on the southern Rosmead Avenue approach, but constraints at the Wetton Road / Rosmead Avenue intersection preclude any feasible upgrades from being proposed (Clark & Liebenberg, 2021).

Contamination:

Soil samples were analysed for metals and metalloids, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and TPH (O'Brien & Engelsman, 2020). The concentrations of all determinants in the recent fill disposed of at the site (i.e., upper surface layer) are all below their respective soil screening values for commercial industrial land use (proposed future use) (O'Brien & Engelsman, 2020).

O'Brien & Engelsman (2020) confirm that no complete S-P-R linkage is identified for site workers (construction or operational phase) due to the absence of any contamination sources in the surface fill layer at the site, but that a potentially complete S-P-R linkage exists via the leaching of Cu and Pb from the surface fill to groundwater and ecological receptors. However, in this regard, the covering of the recent fill with hardstanding materials and resultant reduction in infiltration is considered sufficient to mitigate these risks (O'Brien & Engelsman, 2020). The upper fill layer is not considered to be contaminated and does not pose an unacceptable risk to human health in an industrial / commercial land use (O'Brien & Engelsman, 2020).

SUMMARY OF IMPACTS

In terms of impacts on the natural environment, there would be a combination of positive and negative impacts from a freshwater, botanical and faunal perspective. Most negative impacts in this regard are anticipated to be low or very low, with the exception of the faunal aspect in terms of a reduced corridor for the WLT, which is ranked as Medium (-), noting that this is acceptable in terms of the confirmed SEI of the site (as assessed by Jackson & Martin, 2021). Positive impacts in this regard are limited to two impacts, namely a single Medium (+) freshwater impact for potential improvements in water quality and a low (+) botanical impact regarding a reduction in pollution leachate.

Overall, Construction phase impacts would mostly be short-term, with the exception of the transformation of the site (which involved clearing vegetation, wetland habitat, faunal habitat, and removal of some faunal movement corridor) which would hold permanent impacts. Construction phase impacts for changes to the surface drainage regime would be neutral. The positive impacts during this phase largely relate to the socio-economic impact of job creation and site safety and security (which are both rated as medium (+), Very low (-) impacts are anticipated to be associated with typical construction-related aspects such as noise, dust, visual (aesthetics), and use of natural resources. Traffic impacts would also be low (-). Similarly, freshwater impacts are anticipated to be low (-) or very low (-) during construction, with the exception of a single Medium (+) impact for potential improvements in water quality. There would be no botanical impact, given the transformed nature of the site and faunal and groundwater impacts would be low (-), with the exception of the faunal aspect in terms of a reduced corridor for the WLT, which is ranked as medium (-), noting that this acceptable in terms of the confirmed SEI of the site (as assessed by Jackson & Martin, 2021).

No impacts are anticipated with regard to heritage, noise and agricultural production.

Operational impacts are anticipated to be Medium (+) in terms socio-economic aspects such as employment opportunity and improved accessibility with high (+) impacts to improvements in safety and security of the site. There are also positive potential impacts associated with the reduction in greenhouse gas emissions There would also be one low (+) botanical impact regarding a reduction in pollution leachate. Traffic impacts are anticipated to be low (-) with limited difference in current congestion experienced. Negative impacts are also anticipated as a result of the proposed development. There would be low (-) impacts associated with resource use and the impacts associated with freshwater and faunal aspects would be low (-) or very low (-) with no negative. Impacts on groundwater are anticipated to be low (-) to medium (-) (with the specialist confirming that these can be mitigated to acceptable levels) and MHI risk is very low (-).

Two key adverse environmental impacts have emerged through this assessment, which the impact would be medium (-) and low to medium (-) and these are the impact of the loss of the faunal corridor on the WLT and the potential for contamination of groundwater. However, these impacts are acceptable in terms of the SCC SEI for the WLT as assessed by Jackson & Martin (2021) and confirmed that they can be mitigated to acceptable levels (Naicker & Muller, 2021) respectively. Furthermore, specialist assessment has confirmed that the proposed development would not impact on nearby sensitive areas, namely the Kenilworth Conservation Area and the Youngsfield Military Base.

| PLANNING, DESIGN AND CONSTRUCTION PHASE IMPACTS: | | | | | | |
|---|--|---------------------------------------|--|---------------------------------------|---|--|
| ALTERNATIVES | Alternative 1 | | Alternative 2 (Preferred) | | No Go Alternative | |
| Impact: | Significance before mitigation: | Significance after mitigation: | Significance before mitigation: | Significance after mitigation: | Significance before mitigation: | Significance after mitigation: |
| ALTERING THE SURFACE DRAINAGE REGIME: The cut and fill activities and other earthworks that would be required to support development on the site would result in changes to the surface water flow pattern. | Medium (-) | Neutral | Medium (-) | Neutral | None | Not Applicable |
| SOCIO-ECONOMIC ASPECTS - ECONOMIC STIMULUS: Generation of local economic stimulus | Medium (+) | Medium (+) | Medium (+) | Medium (+) | Neutral and foregone positive impacts of alternative | Not applicable |
| SOCIO-ECONOMIC ASPECTS - SAFETY AND SECURITY: Generation of continuous activities and presence on the site which would reduce the likelihood of illegal occupation of the site as well as the use of the site for illegal activities and suspicious behaviour. | Medium (+) | Medium (+) | Medium (+) | Medium (+) | Medium (-) and foregone positive impacts of alternative | Not applicable |
| NUISANCE IMPACTS DUST AND NOISE: The land clearing and other construction activities will result in the generation of dust and noise which may be a nuisance to surrounding land users whilst construction is ongoing. | Low (-) | Very Low (-) | Low (-) | Very Low (-) | Zero | Not applicable |
| VISUAL ASPECTS: Visual impacts associated with construction activities (machinery, vehicle movement, site camp, signage, lighting and temporary services, wind-blown litter, erosion, and exposed surfaces) | Low (-) | Very Low (-) | Low (-) | Very Low (-) | Zero | Not applicable as there would be no impacts to mitigate. |
| USE OF NATURAL RESOURCES: Construction of the proposed development and the associated use of natural resources, such as water, resources for the generation of energy, construction materials etc. | Low (-) | Very low (-) | Low (-) | Very low (-) | Zero | Not applicable as there would be no impacts to mitigate. |
| TRAFFIC: Disturbance to local traffic conditions and safety for road users as a result of construction vehicles accessing the sites during the construction activities. | Medium (-) | Low (-) | Medium (-) | Low (-) | None | Not Applicable |
| HERITAGE ASPECTS: Destruction of significant heritage resources | Low | None | Low | None | None | Not Applicable |
| FRESHWATER ASPECTS: Loss of wetland habitat and function | Medium (-) | Low (-) | Medium (-) | Low (-) | None | Not Applicable |
| FRESHWATER ASPECTS: Disturbance of remaining wetland habitat | Low (-) | Very Low (-) | Low (-) | Very Low (-) | None | Not Applicable |
| FRESHWATER ASPECTS: Alteration of the natural flow regime | Low (-) | Very low (-) | Low (-) | Very low (-) | None | Not Applicable |
| FRESHWATER ASPECTS: Increased erosion and sedimentation | Low (-) | Very Low (-) | Low (-) | Very Low (-) | None | Not Applicable |
| FRESHWATER ASPECTS: Water quality impairment | Medium (-) | Very Low (-) | Medium (-) | Very Low (-) | None | Not Applicable |
| FRESHWATER ASPECTS: Loss of biota | Medium (-) | Very Low (-) | Medium (-) | Very Low (-) | None | Not Applicable |
| FRESHWATER ASPECTS: Improvement in water quality | Low (+) | Medium (+) | Low (+) | Medium (+) | None | Not Applicable |
| BOTANICAL ASPECTS: Potential loss of critically endangered CFSF 'vegetation type' (including stormwater pond area) for the IRT Wynberg bus depot (partial loss for preferred alternative- approx 48327m ²) | None/ no impact | No impact | None/ no impact | No impact | Low (-) | Low (-) |

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|--|----------------------|-------------------------|----------------------|-------------------------|----------------|------|
| FAUNAL ASPECTS: Loss of extent of degraded depression wetland fauna habitat | Low (-) | Low (+) | Low (-) | Low (-) | | |
| FAUNAL ASPECTS: Loss of extent of less degraded depression wetland fauna habitat | Low (-) | Low (-) | NA | NA | Not applicable | None |
| FAUNAL ASPECTS: Reduced <i>S. Pantherina</i> foraging ground/corridor | High (-) | Moderate/ Medium (-) | High (-) | Moderate/ Medium (-) | Not applicable | None |
| GROUNDWATER ASPECTS: Contamination as a result from dewatering machinery and activities | Low to Medium (-) | Low (-) | Low to Medium (-) | Low (-) | | |

| OPERATIONAL PHASE IMPACTS: | | | | | | |
|---|--|---------------------------------------|--|---------------------------------------|--|---------------------------------------|
| ALTERNATIVES | Alternative 1 | | Alternative 2 (Preferred) | | No Go Alternative | |
| Impact: | Significance before mitigation: | Significance after mitigation: | Significance before mitigation: | Significance after mitigation: | Significance before mitigation: | Significance after mitigation: |
| SOCIO-ECONOMIC ASPECTS - Creation of employment opportunities as a result of the operation of development. Additional indirect economic impacts (stimulus) will also be experienced. | Medium (+) | Medium (+) | Medium (+) | Medium (+) | Neutral and foregone positive impacts of alternative | Not applicable |
| SOCIO-ECONOMIC ASPECTS: Provision of improved accessibility for previously disadvantaged communities with respect to employment, economic centres and places of education and recreation. | Medium (+) | Medium (+) | Medium (+) | Medium (+) | Zero and positive impacts would be foregone. | None |
| SOCIO-ECONOMIC ASPECTS: Improvements to safety and security for all those accessing the area via vehicles or on foot. | High (+) | High (+) | High (+) | High (+) | Zero and positive impacts would be foregone. | None |
| POTENTIAL IMPACTS ASSOCIATED WITH REDUCTION IN EMISSION OF GREENHOUSE GASES: Operation of the proposed bus depot would result in an increasing number of people making use of public transport over private transport. This would reduce the per capita emission of greenhouse gases in the community. | Medium (+) | Not applicable | Medium (+) | Not applicable | Zero and positive impacts would be foregone. | Not applicable |
| NUISANCE IMPACTS- NOISE: Impact of noise on nearest noise sensitive receptors (i.e., the Bonny town informal settlement) | Negligible | Not Applicable | Negligible | Not Applicable | Not applicable | Not Applicable |
| RESOURCE-USE ASPECT: Depletion of resources through use of resources such as energy and water and production of waste as a result of operational activities at the proposed bus depot | Low (-) | Low (-) | Low (-) | Low (-) | Not Applicable | Not Applicable |
| TRAFFIC ASPECT: | Low (-) | Low (-) | Low (-) | Low (-) | Negligible | Not Applicable |
| HERITAGE ASPECTS: Impacts to significant heritage resources | Low (-) | None | Low (-) | None | None | Not Applicable |
| FRESHWATER ASPECTS: Disturbance of wetland habitat | Low (-) | Very Low (-) | Low (-) | Very Low (-) | Medium (-) | Medium (-) |
| FRESHWATER ASPECTS: Alteration of flow regime | Low (-) | Very low (-) | Low (-) | Very low (-) | Medium (-) | Medium (-) |
| FRESHWATER ASPECTS: Loss of biota | Medium (-) | Low (-) | Medium (-) | Low (-) | Medium (-) | Medium (-) |
| BOTANICAL ASPECTS: Destruction of (clearing) irreversibly degraded former CFSF site for the IRT Wynberg bus depot. Impact on broader area (corridor/patch effect), noting that the preferred alternative is partial destruction. | No impact | No impact | No impact | No impact | Not applicable | Not applicable |
| BOTANICAL ASPECTS: Botanical impact associated with the change in local hydrology effecting nearby indirect and critical CFSF areas through surface hardening | Low (-) | No impact | Low (-) | No impact | Not applicable | Not applicable |

| | | | | | | |
|--|----------------|-------------------|----------------|-------------------|--------------------|----------------|
| BOTANICAL ASPECTS: Botanical impact on areas of CFSF resulting from spillage and pollution runoff | No impact | No impact | No impact | No impact | Not applicable | Not applicable |
| BOTANICAL ASPECTS: Botanical impacts resulting from a reduction in polluted leachate emanating from the site | Low (+) | Not applicable | Low (+) | Not applicable | Medium to high (-) | Low (-) |
| FAUNAL ASPECTS: Disturbance of faunal species due to operation of the IRT depot. | Low (-) | Low (-) | Low (-) | Low (-) | Not Applicable | Not Applicable |
| FAUNAL ASPECTS: No-go alternative and provision of ecological function and a corridor to fauna | Not applicable | Not applicable | Not applicable | Not applicable | Low (-) | Not applicable |
| GROUNDWATER ASPECT: Fuel dispensing operations and the refilling of underground storage tanks | High (-) | Medium – Low (-) | High (-) | Medium – Low (-) | None | None |
| GROUNDWATER ASPECT: Drainage of onsite chemicals off the depot surface and into the primary aquifer via stormwater | High (-) | Low to Medium (-) | High (-) | Low to Medium (-) | None | None |
| GROUNDWATER ASPECT: Groundwater contamination from leakage associated with the spray booth and workshops | High (-) | Low to Medium (-) | High (-) | Low to Medium (-) | None | None |
| GROUNDWATER ASPECT: Groundwater contamination from drainage of contaminants from buses such as oil during washing, into shallow subsurface- long term risk | High (-) | Low to Medium (-) | High (-) | Low to Medium (-) | None | None |
| GROUNDWATER ASPECT: Groundwater contamination from drainage of contaminants from the bus parking area, into the shallow subsurface | High (-) | Low to Medium (-) | High (-) | Low to Medium (-) | None | None |
| GROUNDWATER ASPECT: Reduced groundwater recharge into the aquifer due to developed surface | Medium (-) | Low to Medium (-) | Medium (-) | Low to Medium (-) | None | None |
| MHI RISK ASPECT: Risk of pool fires on site (at refuelling area) (i.e., through diesel tank failure, loading hose rupture of diesel road tanker, loading hose leak at diesel road tanker, tank failure of diesel road tanker, hose rupture at curb-side pump) | Low (-) | Very Low (-) | Low (-) | Very Low (-) | None | None |

It is not the intention of the Applicant to decommission the proposed development as it would provide a permanent supporting facility within the greater IRT system.

MITIGATION AND RESPONSE

Heritage

None of the design alternatives under consideration would fall within any areas of heritage sensitivity (Lavin, March 2021) and so there are no further constraints to that must be considered in that regard. The same applies to agricultural areas (Lanz, 2021). There are no mitigation measures or further findings that require consideration in this regard.

Noise

In terms of noise, the nature and scale of the proposed development is already such that impacts would be negligible and therefore no future mitigation is necessary. Traffic/transport impacts are also considered to be low and there are no infrastructure upgrades for the local road network recommended in the Transport impact assessment. The assessment does, however, confirm that the proposed design is appropriate.

Terrestrial and Aquatic Biodiversity

Specialist assessment in terms of terrestrial and aquatic biodiversity, as well as fauna, align on finding that the site is heavily transformed, but that it may provide some function as a movement or foraging corridor for the WLT. Specifically in terms of the impacts on the WLT, the movement through the area would be accommodated through design such as including a stormwater pond, planted to mimic wetland conditions, located in the northeast corner of the site (nearest to the remaining corridor). The WLT Design Guideline measures have also been included in the design specifications of the EMPr. Aside from this, the site plays no other supporting or buffering functions to the nearby Kenilworth Racecourse Conservation area or Youngsfield military base (NCC, 2021). Alternative 2 would not encroach into the less degraded wetland areas and would also not encroach into the moderate SEI faunal habitat. The entire site is also located in a very transformed botanical area and so there would be no impact on CFSF in that regard, given that there is none present on site (NCC, 2021). The intention to remove some of the waste and "cap" it (through development of the depot layer works) would provide positive freshwater and botanical impacts and would also be sufficient from contamination perspective, given that it would close off/block the S-P-R linkages.

Groundwater

The contamination assessment does, however, confirm that the proposed end-use (i.e., a depot) is aligned with the SSV 2 limits and so the levels of certain contaminants detected on site do not legally preclude development of the proposed depot thereon.

The groundwater, botanical and contamination assessments align, and all reports align and address the contaminants found on site and potential for future contamination. There are several mitigation measures included in the design specifications of the EMPr (as per the groundwater and contamination assessment recommendations) in order to mitigate potential groundwater impacts/ water quality impacts to acceptable levels, and they are supported by the botanical impact assessment findings as well.

Stormwater

The stormwater management plan and landscaping proposed take cognisance of the findings of the freshwater impact assessment and the system has been designed to manage water quality and quantity on site, and to recharge the wetlands to the east with clean (i.e., treated/polished) run-off at appropriate volumes/flow rates. Planting of the lined stormwater pond would mimic wetland conditions, with a different strategy applied to the wet zones and drier zones of the pond so that plants do not perish. Planting for the remainder of the area would make use of CFSF plants in response to the botanical findings, as well as some trees, to maintain some of the current landscape character (i.e., there are a few large exotic trees on site).

Monitoring for groundwater, both in terms of recharge trends as well as early detection for contaminants is also included in the proposed development scope and the operational specifications of the EMPr.

Furthermore, given that there are several impacts associated with the construction phase, the EMPr contains many specifications in order to control, manage and mitigate these impacts as recommended by all specialists where construction phase impacts were identified.

Geotechnical

The geotechnical findings are supported through the proposed development and the proposed ground stabilisation/remedial measures would be implemented, noting that this has been confirmed as adequate in the contamination assessment.

Major Hazardous Installation

The potential impacts in terms of MHI risk are acceptable and the risks would not be present off-site, however there are several mitigation measures included in the design specifications of the EMPr to manage these risks (largely related to pool fires). The measures provided in Thackwray (2021) would also, to some degree, provide for protection against possible groundwater contamination in terms of leak prevention and maintenance.

The proposed landscaping design would be incorporated into the stormwater management system where needed and would also make use of appropriate plant species as recommended by the botanist and freshwater ecologist. It also provides for screening from the M5, Wetton Road and Bonnytown.

Management measures for design, planning, construction, and operation phase of the proposed development have also been integrated into the specifications contained in the EMPr, which would also be conditions of Environmental Authorisation (if granted).

Anticipated impacts of the two development footprint alternatives are similar for most aspects, however there is a clear preference for the preferred alternative (i.e., Alternative 2) from a freshwater and faunal perspective. The preferred alternative is intentionally comparatively smaller/narrower along the eastern edge in order to remain out of the less degraded wetland and the moderate SEI faunal habitat area, and to thus provide a comparatively wider WKT movement corridor off-site to the east. Furthermore, the south-west corner is narrower in the preferred alternative in order to remain beyond any structures associated with the Bonnytown informal settlement. Hence, the proposed preferred alternative in this application for environmental authorisation.

NEED AND DESIRABILITY

Overall, all development must, in terms of Section 24 of the Constitution, be ecologically sustainable, and economic and social development must be justifiable. The freshwater impact assessment, faunal impact assessment and botanical impact assessment have considered the sustainability of the ecological aspects on site and nearby (particularly because there are sensitive conservation areas nearby) and impacts have been found to be low (-) or Very Low (-), with mitigation and so the proposed expansion can occur sustainably from an environmental perspective. There are two exceptions with the faunal impact on the WLT movement corridor being medium (-), with mitigation, but this impact is considered acceptable in terms of the SCC SEI (Jackson & Martin, 2021). The other exception is that of potential impacts on groundwater (i.e., contamination of groundwater) which are ranked as medium to Low (-), but Naicker & Muller (2021) confirm that these can be adequately mitigated. The mitigation measures are important and must be implemented. That is why they are included as specifications in the EMPr and are strongly recommended as conditions of authorisation in this Basic Assessment Report.

The economic and social aspects of the project are expected to be medium to high positive and would serve to provide connectivity, opportunity, and economic stimulus, as well as improvements to safety and security of site to surrounding communities (including previously disadvantaged communities), which are believed to be justifiable in the context of historic prejudice, intergenerational sustainability, and equity. Financial sustainability would be provided by the City of Cape Town through their various contracts for operations. In addition, the unconstitutional actions of a previous regime as well as historically poor/unjust spatial planning that did not cater for provision of public transport for all, would be rectified while ensuring that society as a whole can still benefit from the improved connectivity and access provided by the proposed development for generations to come. Noting also that no unacceptable loss (within the context of the ecological function and value of the site) of sensitive natural systems or areas would be experienced by the proposed development, which would result in some loss of completely transformed vegetation and highly degraded wetland/ habitat, but that this would be compensated for through design and management mitigation measures, particularly where movement of fauna (including the WLT), and groundwater contamination prevention are concerned. The sensitive natural assets nearby, namely the Kenilworth Racecourse Conservation Area/ Reserve and the Youngsfield Conservation Area would not be adversely affected by the proposed development.

PUBLIC PARTICIPATION

The public participation process (PPP) to-date has far exceeded the minimum legislative requirements prescribed in regulation 41 of the EIA Regulations, 2014 (as amended).

Pre-Application:

The pre-application PPP included the following activities (noting that while no alternative sites were considered in this impact assessment process, alternative layouts were assessed):

- Compilation of a preliminary Interested and Affected Party (I&AP) database which is informed by research conducted by Chand on contemporary officials and stakeholder groups which may have an interest in the area or project. The I&AP database has been maintained throughout the Basic Assessment process as meetings with key stakeholders have been held. Therefore, the I&AP database includes parties required in terms of Regulation 41 (2) (b) of the EIA Regulations, 2014 (as amended).
- Compilation of a Background Information Document (BID) and distribution of the associated Notification Letter on **30 April 2021 for a 30-day comment period from 1 May 2021 to 1 June 2021**. The notification of the BID was distributed via email to those I&APs with email addresses and via post to those who did not. The BID was available for download from Chand's website and delivered to surrounding owners via a knock-and-drop exercise.
- The BID was also distributed to the Bonnytown informal settlement, however, an additional Frequently Asked Questions (FAQ) document was compiled specifically for the residents of the informal settlement pertaining to issues that would be more likely to directly affect them. This FAQ document was provided in English, Afrikaans and isiXhosa.
- A combined pre-application meeting was held with the Department of Water and Sanitation (DWS), DEA&DP: Development Management and DEA&DP: Pollution and Chemicals Management was held on 17 March 2021; and
- A Focus Group Meeting with City of Cape Town: Transport Management, City of Cape Town: Informal Settlements and City of Cape Town: Planning and Development on 27 May 2021

The PPP undertaken for the public review of the pre-application Draft BAR included the following:

- A **60-day** public comment period for the pre-application Draft BAR was provided from **20th July 2021 to 21st September 2021**.
- Knock and Drop delivery of a notification of the availability of the pre-application draft BAR to adjacent landowners;
- Notification of the availability of the pre-application draft BAR was emailed to the preliminary I&AP database and post was sent to those who do not have email addresses.
- The pre-application draft BAR was made available for download from Chand's website for the duration of the comment period.
- A separate executive summary of the pre-application draft BAR was made available for download from Chand's website for the duration of the comment period.
- Attempts were made to leave a hardcopy of the pre-application draft BAR at the Wynberg Public Library, however the library was closed due to the Covid-19 lockdown levels at the time.
- No hardcopies of the pre-application Basic Assessment Report were issued to I&APs, as no requests were received.

Evidence for the above has been included in **Appendix F** of the Draft BAR, noting that contact information for I&APs have not been made public. However, as a registered I&AP, the registrations made are also in terms of the Protection of Personal Information Act and this information will be released to the Applicant, DEA&DP, as well as any appellants at the end of the process, and this information will become part of the public record.

An application for Environmental Authorisation and post application Draft BAR was submitted on 2nd May 2023 and public participation ran until 3rd June 2023. Proof of public participation, I&AP registrations, Stakeholder and Authority engagements, as well as comments and responses from the first iteration of the Draft BAR have been recorded within this BAR.

On 10th July 2023, a meeting was held with DEA&DP: Development Management and Pollutions and Chemicals, where the applicant, City of Cape Town, via Chand Environmental, were requested to withdraw the application for Environmental Authorisation pending further testing required regarding the Part 8 Land Contamination from the DEA&DP. Testing required included soil, groundwater and freshwater sampling and analysis. These results and findings can be found under **Appendix P** of the report. As a result of this the application for Environmental Authorisation was withdrawn on the 8th of August 2023 and correspondence and acknowledgment received on the 14th of August 2023. On the 21st of December 2023, a Remediation Order was issued by DEA&DP under Section 38(3) of the National Environmental Management: Waste Act (Act 59 of 2008) for the contamination of the Wynberg waste dumping site on Erven 90475/RE, 90470 and 91191, Wetton Road, Wynberg (Reference number: 19/3/5/39), thus concluding the Part 8 Land Contamination process.

As such, a new application for Environmental Authorisation has since been submitted, and public review of the post-application Draft BAR is currently underway. PPP activities during this phase include the following:

- A public comment period of a minimum 30 days for the post-application Draft BAR will be from 23rd of February to the 25th of March 2024.
- Placement of two notice boards on the site where the proposed activities are to be undertaken on the site boundary. One board will be placed facing Wetton Road (noting that contents and size would adhere to requirements of Regulations 41 (3) and (4) of the EIA Regulations, 2014 (as amended)). Notice boards will remain erected throughout the public review period.
- Knock and Drop delivery of a notification of the availability of the post-application draft BAR to adjacent landowners will occur on the 22nd of February 2024.
- Notification of the availability of the pre-application draft BAR to the registered I&AP database and post to those who do not have email addresses will occur on the 22nd and 23rd of February 2024.
- The pre-application draft BAR has been made available for download from the EAP's website for the duration of the comment period from the 23rd of February 2024.
- A separate executive summary of the post-application draft BAR has been made available for download from the EAP's website for the duration of the comment period.
- A hardcopy of Executive Summaries of the post-application draft BAR has been left at the Wynberg Public Library and the local Subcouncil offices, including comment sheets and a comment box for the duration of the public review period.
- Where possible, notices of the project and availability of information for review have been put up at key public places in the community such as libraries and shops. These notices would encourage I&APs to visit the Wynberg Public Library and Local Subcouncil office to collect an executive summary and deposit a comment in the comment box for the duration of the public review period.
- Compilation and placement of one advertisement (in English) in a local newspaper on the 20th of February 2024 (noting that contents would adhere to requirements of Regulation 41 (3) of the EIA Regulations, 2014 (as amended)).

Once the DEA&DP has reviewed the FBAR and issued their decision, the decision, date, reasons for decision, means to access the decision, and an explanation regarding the way the decision may be appealed, as well as any further requirements stipulated therein would be distributed to the registered I&AP database via email for those who have email addresses and post for those who have only postal addresses. It would also be uploaded onto the EAP's website so it would be accessible for download. The applicable appeal period would be explained in accordance with that included in the decision.

Issues have been raised by various state departments, both prior to this process, as well as provided as part of the Basic Assessment process. These issues have been largely procedural or related to pointing out potential aspects for further consideration (such as the Western Leopard Toad possibly making use of the site, the wetlands on site, potential traffic issues, etc).

The issues raised have been addressed in this Basic Assessment Report through a number of ways such as providing a preferred development alternative footprint that avoids certain sensitivities, specialist assessments carried out, details included in the scope of specialist assessments, measures for control in the environmental specifications have been included in the EMPr, and certain points of clarity have been included in the Basic Assessment Report.

CONCLUSIONS

Through Chand's investigation, which entailed inputs from the design team, the environmental specialists and key I&APs (i.e., State Departments), a number of environmental impacts have been identified and considered.

Those aspects that influenced the EAP's opinion on this question are primarily related to the following points:

- The various considerations which were applied to the selection of the site in terms of technical, legal, and contextual considerations prior to initiation of this Basic Assessment process as well as the environmental and biophysical sensitivities (and avoidance thereof) associated with both development footprint alternatives, noting that the preferred alternative (Alternative 2) deliberately avoids the more sensitive areas;
- The need and desirability of the proposal with regard to its contribution to the establishment of an efficient and safe public transport system as well as increased connectivity and economic access for previously disadvantaged communities, and improvements to safety and security on site;

- The positive impact on the local community in terms of job creation as well as improvements to public transport and economic access;
- The adverse environmental impacts anticipated and the degree to which these can be mitigated to acceptable levels (which, it has been found through specialist assessment, would be possible, given the context and function of the site)
- The manner in which the proposed development responds to the various specialist assessments and findings; and
- The limited risk associated with the site in terms of incidents pertaining to the fuel storage tanks.

In addition, the following aims of the proposal as well as the greater network with which it is associated have also been considered, noting that the proposed depot would play a supporting role in this, particularly for the Phase 2 trunk routes which provides connectivity between the Southern Suburbs, Wynberg and Claremont, across to the Cape Flats extremities of Mitchells Plain and Khayelitsha

- Development of vibrant areas by removing barriers to access;
- Improvement of connectivity throughout the Metropolitan areas;
- Increased efficiency of people's movement and as an aid to the movement of commuters and development activities.
- Improved access and transportation routes to encourage future development and intensification of use;
- Decrease in walking distances from residential and places of work to public transport facilities; and
- Reinforced convergence on core routes and access points.

Independent specialist assessment has culminated in recommendations to approve the proposed development and to indicate that the impacts of the proposed development would be acceptable, with implementation of mitigation measures. With the implementation of mitigation measures, any impact in this regard (noting that there are none anticipated from a heritage, noise, or agricultural perspective) can be mitigated to low, or very low negative levels of significance. There are two exceptions with the faunal impact on the WLT movement corridor being medium (-), with mitigation, but this impact is considered acceptable in terms of the SCC SEI (Jackson & Martin, 2021). The other exception is that of potential impacts on groundwater (i.e., contamination of groundwater) which are ranked as medium to Low (-), but Naicker & Muller (2021) confirm that these can be adequately mitigated. The mitigation measures are important and must be implemented. That is why they are included as specifications in the EMPr and are strongly recommended as conditions of authorisation in this Basic Assessment Report. The site also holds capacity in terms of the availability of essential services and the stormwater management plan is aligned with the requirements of the City of Cape Town and freshwater ecologist. The proposal would also provide accessibility and safe public movement through the area as well as support the greater MyCiti transport infrastructure. There are no significant adverse environmental impacts anticipated whereby impacts would be unacceptable, and so there is, with the information available at present, no reason why the preferred alternative of the proposed development should not be granted Environmental Authorisation in that regard.

It is believed that the alternatives and impacts that have been identified have been adequately addressed through changes in the proposed footprint proposed (e.g., devising a preferred alternative which avoid more sensitive wetland and faunal habitat areas and avoids Bonnytoun, while providing a relatively wider faunal movement corridor to the east), or would be mitigated to acceptable levels through the final design and/or the strict implementation of the EMPr. A number of specialists have been involved in order to inform the investigation which provided both independence and transparency in the process as well as appropriate skills and expertise.

The design for the preferred alternative has been a co-operative and iterative process between all parties concerned.

The decision for the authorisation lies with the competent authority and should be taken based on the information provided. While this report contains clarity on issues raised during the pre-application public participation, it is believed that there is, however, not yet sufficient information contained in this report to make the decision because the report still requires the incorporation of comments from I&APs on the post-application draft Basic Assessment Report (i.e., this report). The responses to comments raised during the public review of this report will be delivered in the next iteration of the report i.e., the Final BAR.

The decision should be taken by considering all impacts and the way they weigh up against one another, as well as the I&AP comments and the responses provided thereto. Notwithstanding, a comprehensive pre-application public participation process has already been undertaken and all issues raised to-date have been addressed in this report and in the proposed development where appropriate.

In conclusion, it is believed that the preferred alternative represents responsible development and would be an asset to the community and greater City of Cape Town, which is aligned with spatial planning goals, while not compromising the ecological integrity or function of the site (when considered against the extent to which it currently provides for such services) and that of the nearby sensitive areas of Kenilworth Racecourse Conservation Area and Youngsfield Military base, and having no impact on heritage/cultural areas of value to the communities and in terms of the NHRA. It is therefore believed that the preferred alternative (i.e., Alternative 2)/ the preferred development footprint could be authorised (noting that a specific plan should not be authorised as the details thereof may be further amended), subject to the implementation of the mitigation measures included in this report and the EMPr, and also subject to resolution of any potential issues that may emerge through the current public review of this post-application draft BAR.

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

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

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

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

DEPARTMENTAL DETAILS

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

MAPS

| Provide a location map (see below) as Appendix A1 to this BAR that shows the location of the proposed development and associated structures and infrastructure on the property. | |
|--|---|
| <p>Locality Map:</p> | <p>The scale of the locality map must be at least 1:50 000. For linear activities or development proposals of more than 25 kilometres, a smaller scale e.g., 1:250 000 can be used. The scale must be indicated on the map. The map must indicate the following:</p> <ul style="list-style-type: none"> • an accurate indication of the project site position as well as the positions of the alternative sites, if any; • road names or numbers of all the major roads as well as the roads that provide access to the site(s) • a north arrow; • a legend; and • a linear scale. <p>For ocean based or aquatic activity, the coordinates must be provided within which the activity is to be undertaken and a map at an appropriate scale clearly indicating the area within which the activity is to be undertaken.</p> <p>Where comment from the Western Cape Government: Transport and Public Works is required, a map illustrating the properties (owned by the Western Cape Government: Transport and Public Works) that will be affected by the proposed development must be included in the Report.</p> |
| Provide a detailed site development plan / site map (see below) as Appendix B1 to this BAR; and if applicable, all alternative properties and locations. | |

| | |
|--|--|
| Site Plan: | <p>Detailed site development plan(s) must be prepared for each alternative site or alternative activity. The site plans must contain or conform to the following:</p> <ul style="list-style-type: none"> • The detailed site plan must preferably be at a scale of 1:500 or at an appropriate scale. The scale must be clearly indicated on the plan, preferably together with a linear scale. • The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan. • On land where the property has not been defined, the co-ordinates of the area in which the proposed activity or development is proposed must be provided. • The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be clearly indicated on the site plan. • The position of each component of the proposed activity or development as well as any other structures on the site must be indicated on the site plan. • Services, including electricity supply cables (indicate aboveground or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the proposed development must be clearly indicated on the site plan. • Servitudes and an indication of the purpose of each servitude must be indicated on the site plan. • Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to): <ul style="list-style-type: none"> o Watercourses / Rivers / Wetlands o Flood lines (i.e., 1:100 year, 1:50 year and 1:10 year where applicable); o Coastal Risk Zones as delineated for the Western Cape by the Department of Environmental Affairs and Development Planning ("DEA&DP"); o Ridges; o Cultural and historical features/landscapes; o Areas with indigenous vegetation (even if degraded or infested with alien species). • Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted. • North arrow <p>A map/site plan must also be provided at an appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred and alternative sites indicating any areas that should be avoided, including buffer areas.</p> |
| Site photographs | <p>Colour photographs of the site that shows the overall condition of the site and its surroundings (taken on the site and taken from outside the site) with a description of each photograph. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide a recent aerial photograph. Photographs must be attached to this BAR as Appendix C. The aerial photograph(s) should be supplemented with additional photographs of relevant features on the site. Date of photographs must be included. Please note that the above requirements must be duplicated for all alternative sites.</p> |
| Biodiversity Overlay Map: | <p>A map of the relevant biodiversity information and conditions must be provided as an overlay map on the property/site plan. The Map must be attached to this BAR as Appendix D.</p> |
| Linear activities or development and multiple properties | <p>GPS co-ordinates must be provided in degrees, minutes and seconds using the Hartebeeshoek 94 WGS84 co-ordinate system.</p> <p>Where numerous properties/sites are involved (linear activities) you must attach a list of the Farm Name(s)/Portion(s)/Erf number(s) to this BAR as an Appendix.</p> <p>For linear activities that are longer than 500m, please provide a map with the co-ordinates taken every 100m along the route to this BAR as Appendix A3.</p> |

ACRONYMS

| | |
|---------------|---|
| BAR | Basic Assessment Report |
| BID | Background Information Document |
| BRT | Bus Rapid Transit |
| CBA | Critical Biodiversity Area |
| CCT | City of Cape Town |
| CFSF | Cape Flats Sand Fynbos |
| CI | Conservation Importance |
| CITP | Comprehensive Integrated Transport Plan |
| CoCT | City of Cape Town |
| CR | Critically Endangered |
| CSHIP | Community Services and Health Directorate |
| CTMSDF | City of Cape Town Municipal Spatial Development Framework |
| CTSDF | Cape Town Spatial Development Framework |

| | |
|---------------------|---|
| Cu | Copper |
| CWC | Carriage-way crossing |
| DAFF | Department of Forestry and Fisheries |
| DEA | Department of Environmental Affairs |
| DEA | National of Environmental Affairs |
| DEA&DP | Western Cape Government: Environmental Affairs and Development Planning |
| DHS | Department of Human Settlement |
| DoA | Department of Agriculture |
| DoH | Department of Health |
| DPL | Dynamic Probe Light Plot |
| DWS | National of Water and Sanitation |
| EAP | Environmental Assessment Practitioner |
| ED | Existing Development |
| EIA | Environmental Impact Assessment |
| EIS | Ecological Importance and Sensitivity |
| EMF | Environmental Management Framework |
| EMPr | Environmental Management Programme |
| EPS | Expanded polystyrene |
| ERM | Environmental Resources Management |
| ESA Ecologic | Area |
| FD | Future Development |
| FGM | Focus Group Meeting |
| FI | Functional Integrity |
| GA | General Authorisation |
| Hg | Mercury |
| HWC | Heritage Western Cape |
| I&APs | Interested and Affected Parties |
| IAP | Invasive Alien Plants |
| IBA | Important Bird Area |
| IPTN | Integrated Public Transport Networks |
| IRPTN | Integrated Rapid Public Transport Networks |
| IRT | Integrated Rapid Transit |
| LED | Light-emitting Diode |
| MEC | Member of the Executive Council |
| MHI | Major Hazard Installation |
| MSDF | Municipal Spatial Development Framework |
| MURP | Mayoral Urban Renewal Programme |
| NCR | Noise Control Regulations |
| NDP | National Development Plan |
| NDP | National Development Programme |
| NEM: AQA | National environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) |
| NEM: ICMA | National environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) |
| NEM: WA | National environmental Management: Waste Act, 2008 (Act No. 59 of 2008) |
| NEM:BA | National Environmental Management: Biodiversity Act (No. 10 of 2004) |
| NEMA | National Environmental Management Act, 1998 (Act No. 107 of 1998) |
| NFEPA | National Freshwater Ecosystem Protection Assessment |
| NHRA | National Heritage Resources Act, 1999 (Act No. 25 of 1999) |
| NID | Notice of Intent to Develop |
| NMT | Non-Motorised Transport |
| NOI | Notification of Intent |

| | |
|--------------------|--|
| NSBA | National Spatial Biodiversity Assessment |
| NWA | National Water Act, 1998 (Act No. 36 of 1998) |
| OESA | Other Ecological Support Area |
| OHS | Occupational Health and Safety |
| ONA | Other Natural Area |
| ONV | Other Natural Vegetation |
| P | Pathway |
| Pb | Lead |
| PES | Present Ecological State |
| PLTF | Provincial Land Transport Framework |
| PPP | Public Participation Process |
| PPP | Public Participation Process |
| PSDF | Provincial Spatial Development Framework |
| R | Receptor |
| RIC | Rapid Impact Compaction |
| RR | Receptor Resilience |
| S | Source |
| SANBI | South African National Biodiversity Institute |
| SCC | Species of Conservation Concern |
| SDF | Spatial Development Framework |
| SDI&GIS | Strategic Development Information and GIS Department |
| SEI | Site Ecological Importance |
| SPLUMA | Spatial Planning and Land Use Management Act (No.16 of 2014) |
| SPUD | Spatial Planning and Urban Design |
| SSV | Soil Screening Values |
| STA | Spatial Transformation Area |
| STR | Screening Tool Report |
| SUDS | Sustainable Urban Drainage System |
| SVOC | Semi-Volatile Organic Compounds |
| SWSA | Strategic Water Source Area |
| TDM | Travel demand management |
| TIA | Transport Impact Assessment |
| TOD | Transit-Orientated Development |
| TOR | Terms of Reference |
| TP | Total Phosphorous |
| TPH | Total Petroleum Hydrocarbons |
| TSS | Total Suspended Solids |
| VOC | Volatile Organic Compound |
| WCBSP | Western Cape Biodiversity Spatial Plan |
| WCG | Western Cape Government |
| WCG: DoH | Western Cape Government: Department of Health |
| WLT | Western Leopard Toad |
| WLTCC | Western Leopard Toad Conservation Committee |
| WUL | Water Use License |
| WULA | Water Use Licence Application |
| WWF | World Wildlife Fund |
| Zn | Zinc |

ATTACHMENTS

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

The following checklist of attachments must be completed.

| APPENDIX | | | ✓ (Tick) or x (cross) |
|-------------|--|--|-----------------------|
| Appendix A: | Maps | | |
| | Appendix A1: | Locality Map | ✓ |
| | Appendix A2: | Coastal Risk Zones as delineated in terms of ICMA for the Western Cape by the Department of Environmental Affairs and Development Planning Not applicable. The proposed development is not located along the coastline or in close proximity to the sea/ocean. | Not applicable |
| | Appendix A3: | Map with the GPS co-ordinates for linear activities | NA |
| Appendix B: | Appendix B1: | Site development plan(s) | ✓ |
| | Appendix B2: | A map of appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffer areas; | ✓ |
| Appendix C: | Photographs | | ✓ |
| Appendix D: | Biodiversity overlay map | | ✓ |
| Appendix E: | Permit(s) / license(s) / exemption notice, agreements, comments from State Department/Organs of state and service letters from the municipality. | | |
| | Appendix E1: | Final comment/ROD from HWC Please note: HWC has been included as a commenting party within the public review of the post-application draft BAR. | ✓ |
| | Appendix E2: | Copy of comment from Cape Nature Please note: HWC has been included as a commenting party within the public review of the post-application draft BAR. | ✓ |
| | Appendix E3: | Final Comment from the DWS Includes Water Use License Issued by DWS 01/G22D/CI/12144 | ✓ |
| | Appendix E4: | Comment from the DEA: Oceans and Coast | NA |
| | Appendix E5: | Comment from the DAFF Please note: DFFE has been notified of the public review of the post-application draft BAR for comment. | NA |
| | Appendix E6: | Comment from WCG: Transport and Public Works | x |

| | | | |
|--|----------------------|---|---|
| | | Please note: WCG: Transport and Public Works has been notified of the public review of the post-application draft BAR for comment. | |
| | Appendix E7: | Comment from WCG: DoA Please note: WCG: DoA has been notified of the public review of the post-application draft BAR for comment. | X |
| | Appendix E8: | Comment from WCG: DHS Please note: WCG: DHS has been notified of the public review of the post-application draft BAR for comment. | X |
| | Appendix E9: | Comment from WCG: DoH Please note: WCG: DoH has been notified of the public review of the post-application draft BAR for comment. | NA |
| | Appendix E10: | Comment from DEA&DP: Pollution Management | ✓ |
| | Appendix E11: | Comment from DEA&DP: Waste Management | ✓ |
| | Appendix E12: | Comment from DEA&DP: Biodiversity Please note: DEA&DP: Biodiversity has been notified of the public review of the post-application draft BAR for comment. | X |
| | Appendix E13: | Comment from DEA&DP: Air Quality | ✓ |
| | Appendix E14: | Comment from DEA&DP: Coastal Management | NA |
| | Appendix E15: | Comment from the local authority | ✓ |
| | Appendix E16: | Confirmation of all services (water, electricity, sewage, solid waste management) Please note: The latest capacity letters to be included in the Final BAR | ✓ |
| | Appendix E17: | Comment from the District Municipality Please note: The City of Cape Town is a Metropolitan so they are the only municipality | NA |
| | Appendix E18: | Copy of an exemption notice | NA |
| | Appendix E19: | Pre-approval for the reclamation of land | NA |
| | Appendix E20: | Proof of agreement/TOR of the specialist studies conducted. | Within the body of each specialist report in Appendix G |
| | Appendix E21: | Proof of land use rights | ✓ |

| | | | |
|-------------|--|---|-------------------------------|
| | Appendix E22: | Proof of public participation agreement for linear activities | NA |
| Appendix F: | Public participation information: including a copy of the register of I&APs, the comments and responses Report, proof of notices, advertisements, and any other public participation information as is required. Includes Pre- app DBAR Comments as well as initial DBAR Comments (refer to cover letter for clarity) | | ✓ |
| Appendix G: | Specialist Report(s) <ol style="list-style-type: none"> Freshwater report and risk Matrix Assessment Botanical Impact Assessment Report Stormwater Management Plan Agricultural Compliance Statement Traffic Assessment Geotechnical Assessment Groundwater Impact Assessment Faunal Impact Assessment RNID MHI Risk Assessment Noise Impact Assessment Report Soil Contamination Report | | ✓ |
| Appendix H: | EMPr | | ✓ |
| Appendix I: | Screening Tool Report | | ✓ |
| Appendix J: | The impact and risk assessment for each alternative | | Within the body of the report |
| Appendix K: | Need and desirability for the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013)/DEA Integrated Environmental Management Guideline | | Within the body of the report |
| Appendix L: | Application Form and DEA&DP Acknowledgement | | ✓ |
| Appendix M: | NOI and DEA&DP Acknowledgement & DEADP Comment on NOI | | ✓ |
| Appendix N: | Landscape Plan | | ✓ |
| Appendix O: | Site Sensitivity Verification Report | | ✓ |
| Appendix P: | <u>NEM: WA Part 8 Land Contamination Process</u> <ol style="list-style-type: none"> <u>Notification of the potential contamination of the site to DEA&DP Pollution and Chemicals Management 4 May 2021</u> <u>Notice of Investigation Area 20 January 2023</u> <u>Response to Notice of Investigation Area 17 February 2023</u> <u>Soil and Groundwater Tests Results from GEOSS SA (Pty) Ltd and Comment from DEA&DP September 2023</u> <u>Freshwater Results from Liz Day Consulting (Pty) Ltd</u> <u>DEA&DP:PCM Response to Freshwater Results</u> <u>Order Issued Under Section 38(3) Of NEMWA: Contamination Of The Wynberg Waste Dumping Site On Erven 90475/Re, 90470 And 91191, Wetton Road, Wynberg</u> | | ✓ |
| Appendix Q: | Site Reservation Confirmation | | ✓ |

| | | |
|-------------|---|---|
| Appendix R: | City Approval of Stormwater Management Plan | ✓ |
| Appendix S: | Site Selection Report | ✓ |
| Appendix T: | No Go Area Map | ✓ |
| Appendix U: | Services Report | ✓ |
| Appendix V: | Property Information | ✓ |

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SECTION A: ADMINISTRATIVE DETAILS

| | CAPE TOWN OFFICE: | | GEORGE OFFICE: |
|---|--|---|--|
| Highlight the Departmental Region in which the intended application will fall | REGION 1 (City of Cape Town, West Coast District) | REGION 2 (Cape Winelands District & Overberg District) | REGION 3 (Central Karoo District & Garden Route District) |
| Duplicate this section where there is more than one Proponent | | | |
| Name of Applicant/Proponent: | City of Cape Town: Urban Mobility Directorate | | |
| Name of contact person for Applicant/Proponent (if other): | Represented by Ms. Natalie Billings | | |
| Company/ Trading name/State Department/Organ of State: | City of Cape Town: Urban Mobility Directorate | | |
| Company Registration Number: | NA | | |
| Postal address: | 18th Floor, Civic Centre, Cape Town City Centre | | |
| | Cape Town | Postal code: 8001 | |
| Telephone: | 0800 65 64 63 | Cell: NA | |
| E-mail: | Natalie.Billings@capetown.gov.za | Fax: NA | |
| Company of EAP: | Chand Consultants | | |
| EAP name: | <p>Pre-Application Phase</p> <ul style="list-style-type: none"> • Ms. Marielle Penwarden - (lead EAP during pre-application phase) • Ms. Claudette Muller: <p>Post-Application Phase</p> <ul style="list-style-type: none"> • Ms. Claudette Muller: • Ms. Serina Pillay • Mr. Fabio Venturi • Ms. Michelle Lee <p>The pre-application Draft BAR was compiled by Ms. Marielle Penwarden (EAPASA Registration: 2019/1988) and Ms. Claudette Muller before the EAPASA registration deadline of 08 August 2022. The Draft BAR was updated during the post-application phase by Ms. Claudette Muller. The post-application Draft BAR was reviewed and approved and signed off by Mr Fabio Venturi (EAPASA Registration 2021/4088). Ms Michelle Lee worked in support of the updating process.</p> | | |
| Postal address: | Suite 1.2A Richmond Centre, Main Road, 174 – 206, PO Box 238 | | |
| | Plumstead | Postal code: 7801 | |
| Telephone: | (021) 762 3050 | Cell: NA | |
| E-mail: | info@chand.co.za | Fax: 086 665 7430 | |
| Qualifications: | <p>Pre-Application Phase</p> <ul style="list-style-type: none"> • Ms. Marielle Penwarden - (lead EAP during pre-application phase); BSc Environmental Management/ Zoology (UNISA) and BSc Honours- Environmental Management (UNISA) • Ms. Claudette Muller; BSc Hon Environmental Management (Rhodes) and MPhil Environment, Society & Sustainability (UCT) <p>Post-Application Phase</p> <ul style="list-style-type: none"> • Ms. Claudette Muller; BSc Hon Environmental Management (Rhodes) and MPhil Environment, Society & Sustainability (UCT) • Ms. Serina Pillay; BSc Environmental Science (UKZN) and BSc Hons – Environmental Monitoring and Modelling. • Mr. Fabio Venturi; BSc Chemistry and Zoology (RU) and BSc Hons – Zoology (UP) • Ms. Michelle Lee; BSc Biological Sciences (UCT) and BSc Hons – Marine Sciences (UCT) | | |
| EAPASA registration no: | <p>Pre-Application Phase</p> <ul style="list-style-type: none"> • Ms. Marielle Penwarden - SACNASP Candidate Natural Scientist (600001/15); • EAPASA Registration: 2019/1988 | | |

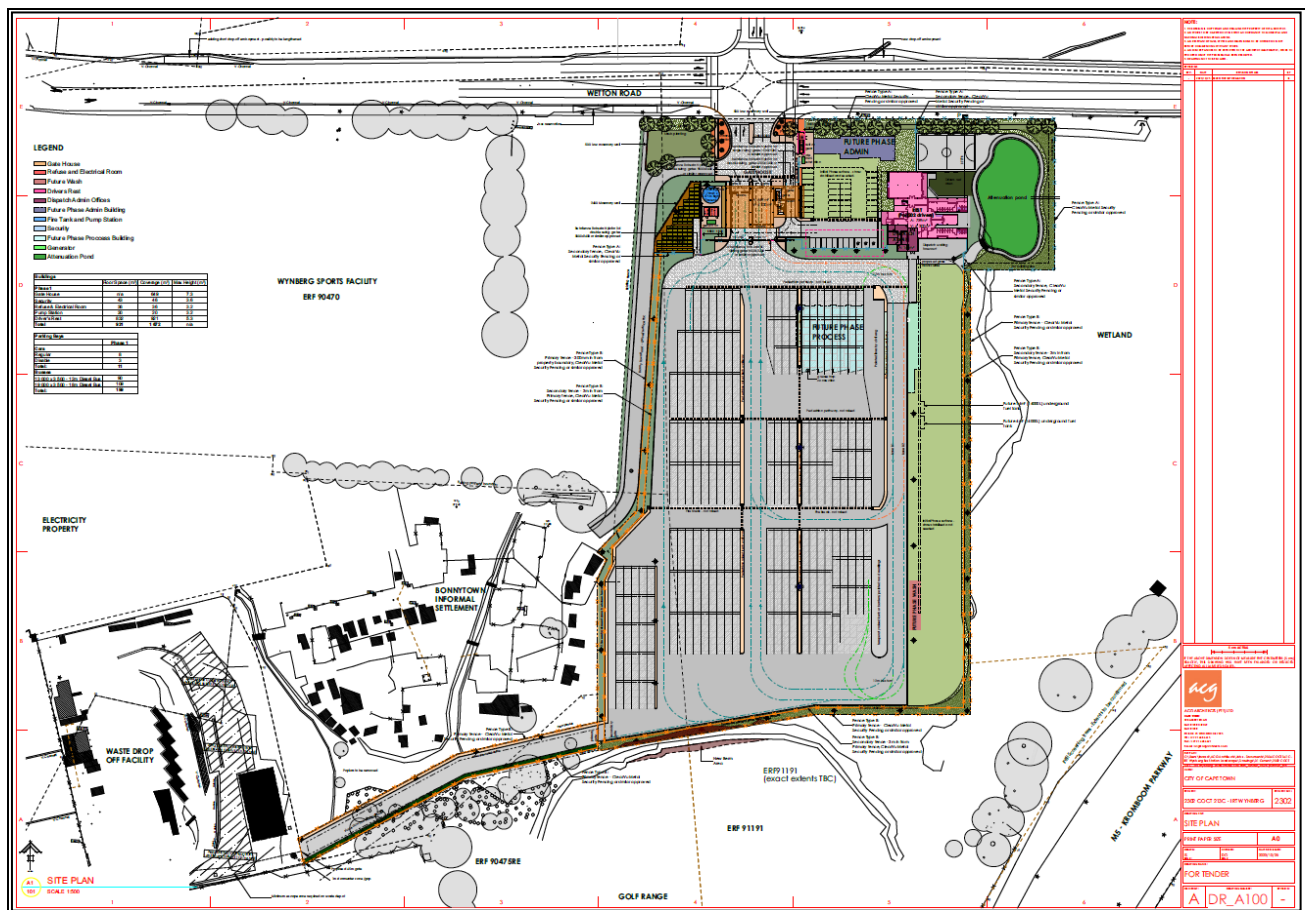
| | | |
|--|--|-------------------|
| | <ul style="list-style-type: none"> • Ms. Claudette Muller - pending | |
| | <u>Post-Application Phase</u> <ul style="list-style-type: none"> • Ms. Claudette Muller – pending • Ms. Serina Pillay - pending • Mr. Fabio Venturi – 2021/4088 • Ms. Michelle Lee – 2021/4150 | |
| Name of contact person for landowner (if other): Postal address: Telephone: E-mail: | City of Cape Town | |
| | Ms. Natalie Billings | |
| | 18th Floor, Civic Centre, Cape Town City Centre | |
| | Cape Town | Postal code: 8001 |
| | 08600 656 463 | Cell: NA |
| | Natalie.Billings@capetown.gov.za | |
| | Fax: NA | |
| Name of Person in control of the land: Name of contact person for person in control of the land: Postal address: | City of Cape Town: Urban Mobility Directorate | |
| | Ms. Natalie Billings | |
| | 18th Floor, Civic Centre, Cape Town City Centre | |
| | Cape Town | Postal code: 8001 |
| Telephone: | 08600 656 463 | Cell: NA |
| E-mail: | Natalie.Billings@capetown.gov.za | Fax: NA |

| | | |
|---|--|----------------------|
| Duplicate this section where there is more than one Municipal Jurisdiction Municipality in whose area of jurisdiction the proposed activity will fall: Contact person: Postal address: Telephone: E-mail: | City of Cape Town: Southern District | |
| | Environmental Management: Mr. Andy Greenwood (Regional Manager) | |
| | Plessey Building, c/o Main and Victoria Road | |
| | Plumstead | Postal code: 7801 |
| | 021 444 2612 | Cell: NA |
| | andrew.greenwood@capetown.gov.za | Fax: +27 21 886 6899 |
| | | |

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

| | | | | | |
|------|--|------------|---------------------------------------|------------------------------------|--|
| 1. | Is the proposed development (please tick): | New | <input checked="" type="checkbox"/> X | <input type="checkbox"/> Expansion | |
| 2. | Is the proposed site(s) a brownfield of greenfield site? Please explain. | | | | |
| | The site is a greenfields site in the sense that there has been no development thereon, other than the dirt road which presently exists on site. However, the site has been subject to significant illegal dumping in the past (and apparently the present) and so is not in pristine condition and is highly transformed. | | | | |
| 3. | For Linear activities or developments Not Applicable- proposed development is not linear, and although there may be linear components (i.e., in the case of service lines <u>and roadways</u>), these would be within the site footprint and under the linear thresholds. | | | | |
| 3.1 | Provide the Farm(s)/Farm Portion(s)/Erf number(s) for all routes: | | | | |
| | | | | | |
| 3.2 | Development footprint of the proposed development for all alternatives. | | | | |
| | | | | | |
| 3.3 | Provide a description of the proposed development (e.g., for roads the length, width, and width of the road reserve in the case of pipelines indicate the length and diameter) for all alternatives. | | | | |
| | | | | | |
| 3.4. | Indicate how access to the proposed routes will be obtained for all alternatives. | | | | |
| | | | | | |
| 3.5 | SG codes of the Farms/Farm Portions/Erf | | | | |

| | | | |
|--|---|---|---|
| | numbers for all alternatives | | |
| 3.6 | Starting point co-ordinates for all alternatives | | |
| | Latitude (S) | ° | ' " |
| | Longitude (E) | ° | ' " |
| | Middle point co-ordinates for all alternatives | | |
| | Latitude (S) | ° | ' " |
| | Longitude (E) | ° | ' " |
| | End point co-ordinates for all alternatives | | |
| | Latitude (S) | ° | ' " |
| | Longitude (E) | ° | ' " |
| Note: For Linear activities or developments longer than 500m, a map indicating the co-ordinates for every 100m along the route must be attached to this BAR as Appendix A3. | | | |
| 4. | Other developments | | |
| 4.1 | Property size(s) of all proposed site(s): <ul style="list-style-type: none"> • Erf 90475-RE: 21,2409 ha (212409 m2) • Erf 90470: 5,7512 ha (57512 m2) • Erf 91191: 20,9219 ha (209219 m2) <p>Please note: the site for the proposed development does not cover the full extent of the erven listed above. Please refer to Figure 1 below to view the site locality map.</p> | | Total Development Footprint for proposed bus depot 4.83 Ha= 48,328 m² |
| 4.2 | Developed footprint of the existing facility and associated infrastructure (if applicable): There are no existing structures on the site, however the extent of the waste dumped on the site can be considered to cover the entire development footprint, as described above. | | NA |
| 4.3 | Development footprint of the proposed development and associated infrastructure size(s) for all alternatives: | Alternative 1: 49,977 m² Alternative 2 (Preferred): 48,324 m² (which includes a site area of approx. 42,932 m², emergency exit road of 1746 m², and the access road to Bonnytoun at approx. 3646 m²) | |
| 4.4 | Provide a detailed description of the proposed development and its associated infrastructure (This must include details of e.g., buildings, structures, infrastructure, storage facilities, sewage/effluent treatment and holding facilities). | | |
| Note that the below project description is for the Preferred Alternative | | | |
| The preferred site layout/ plan is indicated in Figure a and Figure b below (and Appendix A and Appendix B1) and the proposed development is for a bus depot for the Integrated Rapid Transit (IRT)/ "MyCiti" system that the City of Cape Town is rolling out throughout the metropole. Note that the construction of the proposed development as well as the landscaping would be done in phases. <u>However</u> , this application is for the entire proposed development. | | | |



The proposed bus depot would comprise a large, paved staging area where a portion of the bus fleet would be stored overnight (about up to 61 buses, in the long-term) or until use, administrative and maintenance buildings/structures, and access routes. The proposed development would require an area of approximately 4.83 ha, noting that the footprint considered would be larger to incorporate access and the land between the road and proposed site boundary.

The initial footprint (Alternative 1) considered is about 49,977 m², with the reconfigured layout alternative (Alternative 2) at about 48,324 m² (which includes a site area of approx. 42,932 m², emergency exit road of 1746 m², and the access road to Bonnytown at approx. 3646 m²) as the proposed site has been reconfigured to further avoid environmental sensitivities. Note that the proposed access road to Bonnytown would not be included in the depot site limits (i.e., the depot would be fenced off), but its impacts and approval for the road are contemplated in this application, given that their current access road would have to be moved.

Differences noted between the two development alternatives include the size of the development footprint and the site sensitivities identified. Therefore, the project description is the same for both alternatives. An image of the initial Site Plan for Alternative 1 is provided in **Figure ee**.

Comment from the DEA&DP requesting more detail is acknowledged, it must be noted that the detailed design has not been finalised and will likely be submitted in the Final Basic Assessment Report. Adjustments being made to the detailed design do not include changes in the footprint of the development or a change in the scope of works and/or operation of the development.

Further detailed response was requested by the DEA&DP regarding the wastewater management from the bus washing facility: Response from the technical team was as follows:

- The wastewater will be channelled through an oil separator before flowing into the water storage tanks.
- There will be a recycling plant treating/filtering the 'recycled' water.
- The recycled water will only be used for washing activities.
- Approximately 80% of the water used in the wash process will be recycled.
- Approximately 31.500m³ of material is anticipated to be imported as infill material.
- Approximately 32710m³ of material (rubble, sand, soil, gravity materials) will be excavated from site during the construction phase.

As mentioned above, the detailed designs are still being finalised and may be provided in the submission of the Final Basic Assessment Report. As the design currently stands, volumes that are available can be found below as noted in **Appendix B** – SDP showing volumes.

As per the preferred site development plan provided by ACG architects, the following building dimensions are noted:

| <u>Item</u> | <u>Area coverage (m²)</u> | <u>Max Height (m²)</u> | <u>Comments</u> |
|-----------------------------------|--------------------------------------|-----------------------------------|---|
| <u>Gate House</u> | <u>649</u> | <u>7.3</u> | |
| <u>Security House</u> | <u>46</u> | <u>3.6</u> | |
| <u>Refuse and Electrical Room</u> | <u>36</u> | <u>3.2</u> | |
| <u>Drivers Rest</u> | <u>921</u> | <u>5.3</u> | |
| <u>Water Storage Area</u> | | | <u>4 x tanks proposed</u> |
| <u>Pump Station</u> | <u>20</u> | <u>3.2</u> | |
| <u>Dispatch Area</u> | | | |
| <u>Primary Fencing</u> | | | <u>300mm from boundary; perimeter TBC</u> |
| <u>Secondary Fencing</u> | | | <u>3m from Primary Fence; perimeter TBC</u> |

It is anticipated that the following number of parking bays will be located on site:

- Regular Car – 8 bays
- Disabled Car – 3 bays
- 13 000 x 3500 – 12m Diesel Bus – 90 bays
- 19 000 x 3500 – 18m Diesel Bus – 109 bays.

Project Scope

The current proposal is for the bus depot to be able to provide staging facilities for ~202 busses (noting that there would be capacity for up to ~202-day time staging and for up to ~61 overnight staging buses). While the detailed design of the proposed depot would still be determined, the following basic components would likely apply:

- Re-alignment of the Bonnytown access road to the west of the proposed depot.
- Refueling area (2 x underground diesel storage tank with capacity of 14m³ each) which would include a refueling office and an additional AdBlue Store area (to hold an approximately 280 litre tank- i.e., 1% of fuel storage capacity);
- Wash bay (manual wash only), including support buildings (potentially with automated wash bays as well as deep clean wash bays and all water used in the wash bay would be recycled);
- Parking area (staff and visitors);
- Workshops (where vehicle maintenance and repairs would occur);
- Possible spray booth with the following typical components for a closed system;
- Spray Booth Structure, manufactured from insulated panels (Rock Wool or EPS);
 - Air Intake Systems;
 - Air Intake Filtration System;
 - Air Extraction Systems;
 - Entrance and Exit Doors at opposing ends of spray booth;

- Heating Systems which automatically regulate the internal temperature during spray painting mode;
- Ceiling and Side Wall Lights; and
- Electrical Control System.
- Admin buildings for drivers and staff (e.g., driver dispatch facility, driver mess and recreational facilities);
- Security buildings at the main entrance;
- Double fencing around perimeter;
- Solar farm with ~77 panels;
- Landscaped areas around the depot; and
- Stormwater drainage and attenuation infrastructure.

Access

Access would be off Wetton Road and there would be two embayments for drop-off/pick-up purposes (refer to **Figure ii**. Note that the Wetton Road/ Racecourse Access Road intersection would be upgraded and signalised if it is not already done by the time the development of the proposed development commences.

Services

Water: The proposed depot would require approx. 67.8kl per day at a peak flow of 5.49 l/s with a flow for fire at 100l/s (GIBB, 2018). There is a 110m diameter water main to the west of the proposed development and there is apparently no draw-off from this main at present (GIBB, 2018). The City of Cape Town has provided confirmation of capacity for the required water supply for the proposed development (refer to **Appendix E16**).

Sewer/Sanitation: The site falls within the catchment of the Cape Flats Wastewater Treatment Works (WWTW) and there is confirmation of sufficient capacity to treat the sewerage contribution of the proposed development (GIBB, 2018). Connection would be made to an existing 300mm diameter sewer main nearby (i.e., at the intersection of Prince George Drive and Wetton Road) (GIBB, 2018). This would require the inclusion of a rising main and sewer pump station within the road reserve of Wetton Road, along the northern boundary of the site (GIBB, 2018). The anticipated sewer demand would be 61 kl/day at a peak flow of 1.76l/s (GIBB, 2018). The City of Cape Town has confirmed available capacity for this (refer to **Appendix E16**).

Electricity: Existing infrastructure in this regard exists nearby the site and the City of Cape Town has confirmed sufficient spare capacity to supply the proposed development (refer to Appendix E16).

Refuse: A private contractor would be appointed to remove the refuse/waste from the site (refer to Appendix E16).

Stormwater Management: The overall intention is to manage stormwater on site, within the limits of the proposed development footprint. The intention is to capture the stormwater generated on site in permeable pavers and run these to a lined stormwater pond in the north-east corner of the site. The pond would treat the stormwater to acceptable quality standards for discharge into the wetlands to the east of the site.

While the lining of the pond is to be confirmed during the detailed design phase, preliminary specialist recommendations have indicated the options available for lining of retention ponds include either lining the pond with naturally occurring materials creating a soil liner, or a synthetic liner. When selecting an appropriate liner, the following will be considered:

- The selected material must be durable enough to withstand the installation process.
- The material must have the characteristics to resist punctures.
- The material must be able to withstand multi axial elongation stress and strains associated with any settlements and/or imposed load due to permanent and/or temporary water storage within the retention pond.

The stormwater management system on site would also be designed to accommodate the loss of function that infilling the wetlands for the proposed development would cause. In term of the details, a total area of approximately 12 113 m² of permeable paving would be provided within the bus parking bay areas (Saunders et al, 2021). Sub-areas of permeable paving would be linked to either other permeable paving areas, or to an underground stormwater pipe system of two 375 mm diameter concrete stormwater pipes which would form a spine along the proposed surfaced roadway, which would then be routed between the proposed driver shelter and the Administration block, before discharging into the proposed detention pond (Saunders et al, 2021). The two 375 mm diameter concrete stormwater pipe configuration has been chosen rather than a single, larger pipe diameter due to likely cover issues and it is considered likely that the pipeline would require concrete encasing for the majority of its length to ensure that the axle loads do not damage the pipelines (Saunders et al, 2021). The detention pond would be constructed on a raised platform, which would form part of the bulk earthworks to the Wynberg Depot and is required to allow the outlet pipe of the detention pond to discharge above natural ground level (Saunders et al, 2021). The detention pond would cover a minimum area of approximately 870 m² (inclusive of a proposed 1m gabion edging) and would have an effective maximum storage area of approximately 750 m² and be constructed with 1 in 8 side slopes for the majority of its internal shaping to allow suitable aquatic growth to be planted and maintained and have a water quality "wet-pool" provided below detention storage invert level (Saunders et al, 2021). The detention pond, for Local Stormwater Management Planning purposes, would be served by a single 450 mm diameter stormwater pipe (Saunders et al, 2021). Should, during the detailed design stage, it be found that the configuration cannot meet all pre-development targets (i.e., 1 in 1 year, 1 in 10 year and 1 in 50 year return periods), an outlet box would be designed to suitably attenuation these peak flows, as per Figure hh (Saunders et al, 2021).

Water Quality Monitoring

Boreholes would also be located throughout the site for groundwater quality monitoring during the pre-construction and operational phase, as prescribed by the Groundwater Impact Assessment. These would not be used for water abstraction purposes, and only monitoring.

Landscaping

Given the nature of the proposed development, much of the site is required to be a flat hard surface. The depots are essentially where the buses would be maintained, processed and house and therefore need to be designed to meet the functionality aspects to deal with these large, heavy, vehicles (i.e., the buses). The proposed bus depot would accommodate approximately 202 buses and so the site limits have been devised in response to the need to provide sufficient space for the buses as well as to avoid the less degraded wetlands and botanically sensitive area on the greater property. These considerations have resulted in there being limited space available for landscaping.

Notwithstanding the above, the implementation of soft landscaping has been considered as far as possible and would include aspects such as tree planting, appropriate edge treatment, as well as making use of appropriate planting in support of stormwater management on the site. Landscaping would be divided into three areas, namely the Wetton Road entrance and support building, the staging area, and the exit road. Note that there would also be trees planted along the M5 (i.e., off-site) to provide screening from the M5.

The following key considerations/ design informants apply to the landscape plan, as confirmed by TKLA (2021):

- The site is shaped to drain into a lined attenuation pond on the Northeast corner, this informed the location and character of the lined attenuation pond and the detail resolution of the boundary landscapes. The overflow from this will run into the natural wetland area to the east.
- The fill conditions on the site require the removal of 1.5 to 2 m of existing material which will be replaced with a material as per the engineering specification. Consideration needs to be made in respect of the replacement material within the planting areas to ensure it is conducive to plant growth.
- The requirement to ameliorate the visual impact of the bus depot from the M5 and Bonny Town, is achieved through infill tree and shrub planting along the M5 and the Bonny Town service road.
- Endemic and indigenous water-wise plant materials are specified apart from some of the trees that have been selected because of their resilience within exposed windy environments.
- As there is a concern that the ground water is contaminated due to the existing fill material, the use of borehole water is not permitted. Waterwise plant material is specified. Potable water will be required for the establishment period of the plant material; it is therefore recommended that planting occurs at the commencement of the rainy season. A water bowser will be required for the irrigation of the tree planting outside of the site. In addition, the use of the down pipe rainwater is employed as a strategy where possible.

The landscaping approach to the Wetton Road entrance and support area building is as follows (TKLA, 2021):

- Strategic planting of trees to act as a screen along Wetton Road and provide shading along the Administration buildings Northern façade.
- Where possible, trees are located in close proximity to the buildings down pipes to enable the use of the rainwater as supplementary irrigation.
- Endemic Cape Flats Sand Fynbos vegetation is specified for the ground covers and shrubs.
- The lined attenuation pond presents an opportunity to add to the biodiversity on the site through the planting of seasonal wetland plants.
- As well as providing an environment for passive recreation.
- A walking/jogging track is proposed around the pond.
- A play court and braai area adjacent to the drivers rest area facilitates recreational opportunities.

The landscaping approach to the staging area is as follows (TKLA, 2021):

- Landscaping in the staging area is restricted to the periphery.
- With additional planting within the double fence system.

Refer to Figure c as well as to Appendix N for the draft landscape plan. A plant palette is also provided and is included in the landscape plan included in Appendix N.



Figure c. Landscape Plan (source: ACG Architects, 2024)

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

The site is currently accessible via Wetton Road, and this is where the proposed depot would be accessed from. A Transport Impact Assessment has been conducted by GIBB (referenced as "Clark & Liebenberg, 2021" throughout this report). There would be two embayments for drop-off/pick-up purposes (refer to Figure ii).

Clark & Liebenberg (2021) confirm that the current road network in the vicinity of the site includes:

- The M5 Kromboom Parkway is a four-lane divided roadway and is classified as a Class 1 Principal Arterial
- Wetton Road (M9) is a four-lane divided roadway and is classified as a Class 3 Minor Arterial
- Rosmead Avenue (M28) is a two-way, two-lane roadway and is classified as a Class 3 Minor Arterial

In the short-term access to the site is proposed via a two-way carriage-way crossing (CWC) on Wetton Road opposite the existing Kenilworth Racecourse Access Road, this would be signalised as part of the Kenilworth Racecourse development and is, therefore, not considered in this scope of assessment (Clark & Liebenberg, 2021). The proposed depot is expected to serve the future trunk and feeder routes that originate from the Claremont Public Transport Interchange and the Wynberg Public Transport Interchange, which are both located to the west of the proposed depot (Clark & Liebenberg, 2021). The predominant bus movements at the Wetton Road access will, therefore, be the outgoing left-turn (westbound) and the incoming right-turn (eastbound) (Clark & Liebenberg, 2021). While the outgoing left-turn will be accommodated, the incoming right-turning movement will not be possible at the access point if the depot signalised access is converted to a LIFO access (Clark & Liebenberg, 2021). It is, therefore, proposed that the right turn movements at the Kenilworth Racecourse access road intersection be accommodated at the proposed M5 / Wetton Road interchange by linking the two intersections with a C-D road north of Wetton Road (Clark & Liebenberg, 2021).

The access and spacing proposed, as well as the shoulder site distance, are considered appropriate (Clark & Liebenberg, 2021). The analyses indicate that the 90th percentile queue for inbound traffic will be one vehicle long at the access (Clark & Liebenberg, 2021). No access spacing requirement of carriage way crossing width applies to the emergency escape road (Clark & Liebenberg, 2021).

Note that no alternative site is being considered (a full motivation in this regard will be included in this report).

| | | |
|-----|--|---|
| 4.6 | SG Digit code(s) of the proposed site(s) for all alternatives: Please refer to Appendix V to view the property information | Erf 91191: C01600070009119100000 Erf RE/90475: C01600070009047500000 Erf 90470: C01600070009047000000 |
|-----|--|---|

| | |
|-----|---|
| 4.7 | Coordinates of the proposed site(s) for all alternatives: |
|-----|---|

| Alternative 1 – Not Preferred | | | | |
|-------------------------------|---------------|-----|-----|--------|
| A | Latitude (S) | 34° | 0' | 9.95" |
| | Longitude (E) | 18° | 28' | 55.55" |

| | | | | |
|---|---------------|-----|-----|--------|
| B | Latitude (S) | 34° | 0' | 9.58" |
| | Longitude (E) | 18° | 29' | 3.67" |
| C | Latitude (S) | 34° | 0' | 11.51" |
| | Longitude (E) | 18° | 29' | 3.84" |
| D | Latitude (S) | 34° | 0' | 11.57" |
| | Longitude (E) | 18° | 29' | 2.00" |
| E | Latitude (S) | 34° | 0' | 18.41" |
| | Longitude (E) | 18° | 29' | 2.00" |
| F | Latitude (S) | 34° | 0' | 19.30" |
| | Longitude (E) | 18° | 28' | 54.83" |
| G | Latitude (S) | 34° | 0' | 15.70" |
| | Longitude (E) | 18° | 28' | 54.74" |
| H | Latitude (S) | 34° | 0' | 15.60" |
| | Longitude (E) | 18° | 28' | 55.22" |

Alternative 2 – Preferred

| | | | | |
|---|---------------|-----|-----|--------|
| A | Latitude (S) | 34° | 0' | 20.47" |
| | Longitude (E) | 18° | 28' | 50.19" |
| B | Latitude (S) | 34° | 0' | 18.40" |
| | Longitude (E) | 18° | 28' | 55.35" |
| C | Latitude (S) | 34° | 0' | 15.95" |
| | Longitude (E) | 18° | 28' | 55.19" |
| D | Latitude (S) | 34° | 0' | 15.27" |
| | Longitude (E) | 18° | 28' | 55.83" |
| E | Latitude (S) | 34° | 0' | 11.22" |
| | Longitude (E) | 18° | 28' | 55.84" |
| F | Latitude (S) | 34° | 0' | 10.44" |
| | Longitude (E) | 18° | 28' | 56.41" |
| G | Latitude (S) | 34° | 0' | 10.28" |
| | Longitude (E) | 18° | 28' | 58.07" |

| | | | | |
|---|---------------|-----|-----|--------|
| H | Latitude (S) | 34° | 0' | 9.38" |
| | Longitude (E) | 18° | 28' | 58.01" |
| I | Latitude (S) | 34° | 0' | 9.17" |
| | Longitude (E) | 18° | 29' | 2.71" |
| J | Latitude (S) | 34° | 0' | 11.34" |
| | Longitude (E) | 18° | 29' | 2.91" |
| K | Latitude (S) | 34° | 0' | 11.46" |
| | Longitude (E) | 18° | 29' | 1.44" |
| L | Latitude (S) | 34° | 0' | 18.00" |
| | Longitude (E) | 18° | 29' | 1.92" |
| M | Latitude (S) | 34° | 0' | 20.79" |
| | Longitude (E) | 18° | 28' | 50.37" |

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

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

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

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

| | | |
|---|-----|----|
| The National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) ("ICMA"). If yes, attach a copy of the comment from the relevant competent authority as Appendix E4 and the pre-approval for the reclamation of land as Appendix E19. | YES | NO |
| <p>The National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA"). If yes, attach a copy of the comment from Heritage Western Cape as Appendix E1.</p> <p>A Notice of Intent to Develop (NID) has been compiled and submitted to HWC who have provided their response thereon. HWC have confirmed that there is no reason to believe that the proposed development would impact on heritage resources and so no further assessment in this regard is needed (please refer to Appendix E1).</p> <p>Note that an initial NID was submitted on 30 November 2018 on the initial boarder property considered and a second NID was submitted in March 2021 for the preferred alternative site limits, and both were responded to by HWC with the same sentiments. More information is included in the NIDs in Appendix G(i) as well as the HWC responses to the NIDs in Appendix E1.</p> | YES | NO |
| <p>The National Water Act, 1998 (Act No. 36 of 1998) ("NWA"). If yes, attach a copy of the comment from the DWS as Appendix E3.</p> <p>The proposed development would require infilling of a wetland, which constitutes a Section 21 (c) and (i) trigger under the NWA. A Water Use License (WUL) applies to the proposed development, and this has been confirmed by the DWS.</p> <p>The freshwater Impact Assessment (refer to Appendix G(a)) includes a Risk Assessment Matrix which states that most of the activities potentially generating negative impacts were found to be associated with a LOW-risk class (Steytler, 2021). The exception to this was the loss of wetland habitat and function associated with site clearing and infilling which was found to be associated with a MODERATE risk class (Steytler, 2021). Also, the positive effect of the removal of decades of dumped solid waste during the development phase is associated with a MODERATE positive rating (Steytler, 2021).</p> <p>The DWS have been consulted during the Basic Assessment process. A pre-application meeting was held with DWS (as well as DEA&DP: Development Management, and DEA&DP: Pollution and</p> | YES | NO |

| | | |
|---|-----|----|
| Chemicals Management) on 17 March 2021 (refer to Appendix F) and the project was discussed. <u>A WUL Application was been submitted to the DWS for consideration. Comment was received from the DWS on the Draft BAR who confirmed section 21 (c) & (i) water uses in terms of the NWA. The DWS also commented on the relevance of Section 21 (f). This is contradictory to discussions held during the pre-application meeting and is taken as an error on the part of the DWS. Application has not been made or this water-use as the treated stormwater which will be discharged to the wetland at the site does not constitute wastewater. The previously contemplated dewatering trigger (Section 21 (j)) has not been confirmed and no wetland offsets have been instructed.</u> <u>Within the site, several boreholes are required for groundwater monitoring as per the remediation order issued by the DEA&DP: Pollutions and Chemical Management. DWS have previously confirmed that section 21 (a) would not be applicable should water not be abstracted (which is not the intention and prohibited through the EMP).</u> <u>At the time of submission of the application, a Water Use Licence had been received for the project and is include in Appendix E3.). The reference number is 01/G22D/CI/121441</u> | | |
| The National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEM: AQA"). If yes, attach a copy of the comment from the relevant authorities as Appendix E13. <u>Not applicable. The NEM:AQA is not triggered by the proposed development activities.</u> | YES | NO |
| The National Environmental Management Waste Act (Act No. 59 of 2008) ("NEM: WA") <u>Not applicable. The NEM:WA is not triggered by the proposed development activities</u> | YES | NO |
| The National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004 ("NEMBA"). The biodiversity along and within the site has been assessed, as well as recommendations made, in accordance with this Act. While the NEM:BA does not apply to the proposed development in terms of triggering the need for permits under Section 87 of the NEM:BA, the underlying approach to protection of sensitive biodiversity resources, the avoidance of sensitive areas in development, as well as the use and management of indigenous and listed invasive species respectively are applied in the proposed development, both in the conceptual design and determination of the proposed development footprint, as well as in the Environmental Management Programme (EMPr). Part of the site falls within a Critically Endangered (CR) Ecosystem type, namely Cape Flats Sand Fynbos (CFSF) and therefore, the necessary consideration has been applied by the botanist in this process and the assessment of impacts (refer to Appendix G(b) for the botanical impact assessment report). <u>No permits in terms of the Act will be required for the proposed development activities.</u> | YES | NO |
| The National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) ("NEMPAA"). The Site is not located in a Protected Area; however, it is located about 180m to the south of a protected area, namely the Kenilworth Racecourse Conservation Area/Reserve, and therefore a botanical impact assessment has been undertaken. This assessment considers the cumulative impact of the proposed development, ultimately concluding that the proposed development is not likely to have any negative indirect impacts on the Kenilworth Racecourse Conservation Area/Reserve (NCC, 2021). | YES | NO |
| The Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983). If yes, attach comment from the relevant competent authority as Appendix E5. <u>Not applicable. No agricultural land or resources will be impacted upon given that there are no agricultural land or activities on or in close proximity to the site which can be impacted upon.</u> | YES | NO |

3. Other legislation

| |
|---|
| List any other legislation that is applicable to the proposed activity or development. |
| <ol style="list-style-type: none"> 1. City of Cape Town Municipal Planning Amendment By-law, 2016 (as amended) (Section 42(a) and (d)) 2. The Constitution (RSA 1996) 3. Western Cape Provincial Spatial Development Framework ("PSDF") 4. City of Cape Town Southern District Spatial Development Framework and Environmental Management Framework (2012) 5. City of Cape Town Municipal Spatial Development Framework ("CTMSDF") (<u>January 2023</u>) 6. City of Cape Town Integrated Development Plan 7. Occupational Health and Safety Act (OHS Act) and Major Hazard Installation Regulations (MHI Regulations)- used in conducting the MHI Risk Assessment and compiling the associated report. 8. Western Cape Noise Control Regulations (2013)- used in conducting the Noise Impact Assessment and compilation of the associated report. 9. Nature Conservation Ordinance (1974, as amended 2000) Schedule 1: Endangered Wild Animals and Schedule 2: Protected Wild Animals- applied in the faunal impact assessment |

4. Policies

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

1. Integrated Metropolitan Environmental Policy (June 2003)- Used to guide the footprint of the proposed development and assessment of impacts related to the sensitivities located nearby. The preferred alternative for the proposed development avoids the more sensitive areas from a freshwater, fauna and botanica perspective.
2. City of Cape Town. (2009a). Management of Urban Stormwater Impacts Policy Version 1.1, April 2009. This policy sets out the requirements for proposed developments in terms of both stormwater quality improvement and stormwater quantity control (CoCT, 2009)- This policy was used in the stormwater study and in the creation of the stormwater management plan and consideration of the Freshwater Risk Assessment Matrix (refer to **Appendix G(b)(c)**).
3. City of Cape Town Road Network: Public Right of Way- This document was used in the conceptualization of the proposal to confirm that no future road development has been planned in the immediate vicinity of the site.
4. Management of Urban Stormwater Impacts Policy", City of Cape Town- This policy was used in the stormwater study and in the creation of the stormwater management plan and consideration of the Freshwater Risk Assessment Matrix (refer to **Appendix G(b)(c)**).
5. CCT Management of Urban Stormwater Impacts Policy (2009).

5. Guidelines

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

1. Guidelines on EIA Regulations 2012- These guideline documents guided the Basic Assessment process, noting that where relevant, allowance has been made to align with the 2014 EIA regulations.
2. Guidelines on Public Participation 2012- These guideline documents guided the Basic Assessment process, noting that where relevant, allowance was made to align with the 2014 EIA regulations as well as necessary State of Disaster procedural requirements.
3. Guideline for the Review of Specialist Input into the EIA process (June 2005)- this guideline has been applied in the compilation of this report and review and assimilation of specialist findings in that regard.
4. Guideline for Environmental Management Plans (June 2005)- this guideline was considered when compiling the EMPr included in **Appendix H**.
5. Guidelines on Alternatives (March 2013)- These guideline documents guided the Basic Assessment process, noting that where relevant, allowance was made to align with the 2014 EIA regulations.
6. Guideline on Need and Desirability (March 2013). These guideline documents guided the Basic Assessment process, specifically in the information provided in this report pertaining to need and desirability, noting that where relevant, allowance was made to align with the 2014 EIA regulations.
7. Brownlie, S. 2005. Guideline for involving biodiversity specialists in EIA processes: Edition 1 CSIR Report No. ENV-S-C 2005-053 C. Provincial Government of the Western Cape: Department of Environmental Affairs and Development Planning. - Applied and considered in compilation of the Botanical Impact Assessment Report (refer to **Appendix G(b)**).
8. Cadman, M., de Villiers, C., Holmes, P., Rebelo, T., Helme, N., Euston Brown, D., Clark, B., Milton, S., Dean, R., Brownlie, S., Snaddon, K., Day, L., Ollis, D., Job, N., Dorse, C., Wood, J., Harrison, J., Palmer, G., Maree, K., Manuel, J., Holness, S., Ralston, S. and Driver, A. 2016. Fynbos Forum Ecosystem Guidelines for Environmental Assessment in the Western Cape Fynbos Forum, Edition 2.- Applied and considered in compilation of the Botanical Impact Assessment Report (refer to **Appendix G(b)**).
9. Standard Operating Procedure: Guidelines for new developments adjacent to conservation areas (April 2013)
10. City of Cape Town Biodiversity Network (2017) and National Freshwater Ecosystem Priority Areas (NFEPA)- used to guide identification of environmental sensitivities in this Basic Assessment process as well as the need for certain specialist studies and the nature and siting of the proposed development.
11. Department of Water Affairs and Forestry. (1999). Resource Directed Measures for Protection of Water Resources. Volume 3: River Ecosystems Version 1.0. Resource Directed Measures for Protection of Water Resources, Pretoria, South Africa. - These guidelines were used by the freshwater ecologist when identifying and assessing the nature of freshwater resources along the proposed route as well as in the recommendation of mitigation measures. The full freshwater report can be found in **Appendix G(a)**.
12. Kleynhans, C.J., Thirion, C. and Moolman, J. 2005. A Level I Drainage line Ecoregion Classification System for South Africa, Lesotho, and Swaziland. Report No. N/0000/00/REQ0104. Resource Quality Services, Department of Water Affairs and Forestry, Pretoria, South Africa. These guidelines were used by the freshwater ecologist when identifying and assessing the nature of freshwater resources on site as well as in the recommendation of mitigation measures. The full freshwater report can be found in **Appendix G(a)**.
13. Macfarlane, D.M. and Bredin, I.P. 2016. Buffer zone guidelines for drainage lines, wetlands, and estuaries. Part 1: Technical Manual. WRC Report No (tbc), Water Research Commission, Pretoria. These guidelines were used by the freshwater ecologist when identifying and assessing the nature of freshwater resources on site as well as in consideration of buffer areas. The full freshwater report can be found in **Appendix G(a)**.
14. Macfarlane, D.M. and Bredin, I.P. 2016. Buffer zone guidelines for drainage lines, wetlands, and estuaries. Part 2: Practical Guide. WRC Report No (tbc), Water Research Commission, Pretoria. These guidelines were used by the freshwater ecologist when identifying and assessing the nature of freshwater resources on site as well as in consideration of buffer areas. The full freshwater report can be found in **Appendix G(a)**.

15. Macfarlane, D.M., Kotze, D.C., Ellery, W.N., Walters, D., Koopman, V., Goodman, P. and Goge, C. 2007. WET-Health: A technique for rapidly assessing wetland health. WRC Report No TT 340/09, Water Research Commission, Pretoria- These guidelines were used by the freshwater ecologist when identifying and assessing the health of wetlands on site. The full freshwater report can be found in **Appendix G(a)**.
16. Ollis, D.J., Snaddon, C.D., Job, N.M. and Mbona, N. 2013 Classification System for Wetlands and other Aquatic Ecosystems in South Africa. User Manual: Inland Systems. SANBI Biodiversity Series 22. South African National Biodiversity Institute, Pretoria. These guidelines were used by the freshwater ecologist when classifying aquatic systems on site. The full freshwater report can be found in **Appendix G(a)**.
17. Rountree, M.W., Malan, H.L., Weston, B.C. 2013. Manual for the Rapid Ecological Reserve Determination of Inland Wetlands (Version 2.0). WRC Report No. 1788/1/12. These guidelines were used by the freshwater ecologist when identifying and assessing the nature of freshwater resources on site as well as in the recommendation of mitigation measures. The full freshwater report can be found in **Appendix G(a)**.
18. Department of Water Affairs and Forestry. 2008. A practical field procedure of identification and delineation of wetlands and riparian areas. - These guidelines were used by the freshwater ecologist when identifying the extent of wetlands on site. The full freshwater report can be found in **Appendix G(a)**.
19. Department of Water Affairs and Forestry. 2008. Wetland Delineation Method to Wetland Soils of Western Cape. - These guidelines were used by the freshwater ecologist when identifying the extent of wetlands on site. The full freshwater report can be found in **Appendix G(a)**.
20. Department of Water Affairs and Forestry. 2008. Updated Manual for Identification and Delineation of Wetland and Riparian Areas. - These guidelines were used by the freshwater ecologist when identifying and assessing the nature of freshwater resources on site as well as in the recommendation of mitigation measures. The full freshwater report can be found in **Appendix G(a)**.
21. Macfarlane, D., Holness, S.D., von Hase, A., Brownlie, S. & Dini, J., 2014. Wetland offsets: a best-practice guideline for South Africa. South African National Biodiversity Institute and the Department of Water Affairs. Pretoria. 69 pages. And Wetland Offset Calculator- These guidelines were used by the freshwater ecologist when identifying and assessing the nature of freshwater resources along the proposed route as well as in the recommendation of mitigation measures and consideration of the recommendation for no offsets. The full freshwater report can be found in **Appendix G(a)**.
22. Kotze, D., Marneweck, G.C., Batchelor, A.L., Lindley, D.S. And Collins, N.B. (2005). WET-EcoServices: A technique for rapidly assessing ecosystem services supplied by wetlands. Dept. Tourism, Environmental and Economic Affairs, Free State. - These guidelines were used by the freshwater ecologist when identifying and assessing the nature of freshwater resources along the proposed route as well as in the recommendation of mitigation measures. The full freshwater report can be found in **Appendix G(a)**.
23. Stormwater Management Planning and Design Guidelines for the New Developments, 2002 - used in development of stormwater management plan in **Appendix G(c)**.
24. City of Cape Town Stormwater By-Law (2005)- used in development of stormwater management plan in Appendix G(c).
25. CSIR (2011), Guidelines for Human Settlement Planning and Design, Chapter 6- used in development of stormwater management plan in **Appendix G(c)**.
26. Department of Transport's Manual for Traffic Impact Studies (1995)- used to determine that a Transport impact assessment is required.
27. *Committee of Transport Officials Trip Data Manual (September 2013)*- These guidelines were used in the conceptualization and draft design of the project proposal.
28. *Western Cape Government Road Access Guidelines (March 2001)*- These guidelines were used in the conceptualization and draft design of the project proposal.
29. Geometric Design of Urban Arterial Roads (UTG1- 1986)- These guidelines were used in the conceptualization and draft design of the project proposal.
30. South African Road Traffic Signs Manual (May 2012)- These guidelines were used in the conceptualization and draft design of the project proposal.
31. Guidelines for Human Settlement Planning & Design (Red Book) - This guideline was used in the conceptualization of the project proposal.
32. SANS 1461:2018 Codes of Practice- used in conducting the MHI Risk Assessment and compiling the associated report.
33. SANS 10328:2008- procedures to be followed to predict the impact of noise of proposed development based on objective, scientific principles- applied in the Noise Impact Assessment in **Appendix G(k)**.
34. 10103:2008- applied in the Noise Impact Assessment in **Appendix G(k)**.
35. National Framework for the Management of Contaminated Land (DEA, May 2010)- guided the soil contamination assessment.
36. DRASTIC methodology (Conrad and Munch, 2007)- base of information used to assess groundwater vulnerability.
37. SANS241-1: 2015 standards for domestic water- applied in analysis of groundwater quality.
38. Atlas and Red List of Frogs of South African, Lesotho and Swaziland- used to determine Species of Conservation Concern (SCC) in the faunal impact assessment in **Appendix G(h)**.
39. Atlas and Red List of Reptiles of South African, Lesotho and Swaziland- used to determine Species of Conservation Concern (SCC) in the faunal impact assessment in **Appendix G(h)**.
40. Red List of Mammals of South Africa, Lesotho, and Swaziland- used to determine Species of Conservation Concern (SCC) in the faunal impact assessment in **Appendix G(h)**.
41. Red Data book of Birds of South African, Lesotho and Swaziland- used to determine Species of Conservation Concern (SCC) in the faunal impact assessment in **Appendix G(h)**.

42. International Union for Conservation of Nature (IUCN) an- used to determine Species of Conservation Concern (SCC) in the faunal impact assessment [in Appendix G\(h\).](#)
43. Convention of International Trade in Endangered Species (CITES) - used to determine Species of Conservation Concern (SCC) in the faunal impact assessment [in Appendix G\(h\).](#)
44. Threatened and Protected Species (Section 56(1) of the NEM:BA, 2004) - used to determine Species of Conservation Concern (SCC) in the faunal impact assessment [in Appendix G\(h\).](#)
45. South African National Biodiversity Institute (SANBI). 2020. Draft Species Environmental Assessment Guideline. Guidelines for the implementation of the Terrestrial Flora (3c) & Terrestrial Fauna (3d) Species Protocols for environmental impact assessments in South Africa. South African National Biodiversity Institute, Pretoria. Version 1.0. - used to guide the faunal impact assessment [in Appendix G\(h\).](#)
46. [Department of Transport: Pedestrian and Bicycle Facility Guidelines \(2003\)](#) – used within the traddic assessment in [Appendix G\(e\)](#)

6. Protocols

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

The following assessments/sensitivities were raised in the Screening Tool Reports:

- Agricultural Impact Assessment
- Landscape/ Visual Assessment ([raised in the 2021 and 2024 STR's](#))
- Archaeological and Cultural Heritage Impact Assessment ([raised in the 2021 and 2024 STR's](#))
- Palaeontology Impact Assessment ([raised in the 2021 and 2024 STR's](#))
- Terrestrial Biodiversity Impact Assessment ([raised in the 2021 and 2024 STR's](#))
- Aquatic Biodiversity Impact Assessment ([raised in the 2021 and 2024 STR's](#))
- Noise Impact Assessment
- Traffic Impact Assessment
- Geotechnical Assessment
- Hydrology Assessment
- Socio-Economic Assessment ([raised in the 2021 and 2024 STR's](#))
- Ambient Air Quality Impact Assessment
- Plant Species Assessment ([raised in the 2021 and 2024 STR's](#))
- Animal Species Assessment ([raised in the 2021 and 2024 STR's](#))
- Avian Assessment ([raised in the 2021 STR](#))

The way each of the above has been addressed in response to the applicable protocols is indicated in Table 1 [below](#), noting that sensitivity of each has been verified in the Site Sensitivity Report (refer to **Appendix O**) and agreed to by the DEA&DP in their comment on the NOI (refer to **Appendix M**).

Table 1. Applicable Assessment Protocols and Approach in this Assessment

| No. | Assessment | Applicable Protocol | Response |
|-----|---------------------------------------|--|--|
| 1 | Agricultural Impact Assessment | 1(a) Protocol for the assessment and reporting of environmental impacts on agricultural resources (GG 45421 of 10/05/2019) _ DRAFT | <p>2021 STR Sensitivity: High 2024 STR Sensitivity: High</p> <p>Actual Sensitivity: Low</p> <p>The agricultural sensitivity, as identified by the screening tool, is disputed (Lanz, 2021). The motivation for disputing the sensitivity is that the screening tool does not take zoning or any urban land use or designation into account when classifying agricultural sensitivity (Lanz, 2021). Even land occupied by buildings, in the middle of a city, can still be classified as high agricultural sensitivity by the screening tool, which obviously makes no sense. In reality, such land has zero potential for agricultural production and therefore for being high agricultural sensitivity (Lanz, 2021).</p> <p>Likewise, the classification of high agricultural sensitivity in this case does not take account of the fact that the different erven on the site are zoned for a combination of Public Open Space (OS2), Public Road and Public Parking (T2), and Community 1: Utility and Public Open Space (Lanz, 2021). This zoning negates any agricultural production potential on the site. The site cannot, therefore, be considered to be of anything but low agricultural sensitivity, in terms of the available sensitivity categories, which are: low; medium; high; and very high (Lanz, 2021).</p> |

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| | | | <p>These findings have been confirmed within an updated verification letter.</p> <p>An Agricultural Compliance Statement and verification letter detailing the above explanation is included in Appendix G(d).</p> |
| 2 | Landscape/ Visual Assessment | No specific protocol-consider general requirements (GG 45421 of 10/05/2019) _DRAFT | <p>STRs Sensitivity: Does not mention anything. Actual Sensitivity: Low</p> <p>A Heritage Practitioner conducted a screening assessment on the site and proposed development and completed a Notification of Intent to Develop (NID) in terms of Section 38(1) & (8) of the National Heritage Resources Act (NHRA). Among other aspects, the NID contemplates landscapes and natural features of cultural significance and the NID concluded that there are no heritage resources on the site. HWC also confirmed their agreement in this regard (refer to Appendix E1 for the HWC response to the NID).</p> <p>These findings have been confirmed within an updated verification letter (refer to Appendix Gi).</p> |
| 3 | Archaeological and Cultural Heritage Impact Assessment | No specific protocol-consider general requirements (GG 45421 of 10/05/2019) _DRAFT | <p>2021 STR Sensitivity: High 2024 STR Sensitivity: Very High</p> <p>Actual Sensitivity: Low</p> <p>A Heritage Practitioner conducted a screening assessment on the site and proposed development and completed a Notification of Intent to Develop (NID) in terms of Section 38(1) & (8) of the National Heritage Resources Act (NHRA). Among other aspects, the NID contemplates archaeological resources and areas of cultural significance.</p> <p>The NID concluded that there are no heritage resources on the site. HWC also confirmed their agreement in this regard (refer to Appendix E1 for the HWC response to the NID).</p> <p>The Heritage Specialist, CTS Heritage has confirmed that the findings, impacts and mitigations measures identified in the 2018 and 2021 report are still applicable in 2024. These findings have been confirmed within an updated verification letter (refer to Appendix Gi).</p> |
| 4 | Palaeontology Impact Assessment | No specific protocol-consider general requirements (GG 43110 of 20/03/2020) | <p>2021 STR Sensitivity: High 2024 STR Sensitivity: Low</p> <p>Actual Sensitivity: Low</p> <p>A Heritage Practitioner conducted a screening assessment on the site and proposed development and completed a Notification of Intent to Develop (NID) in terms of Section 38(1) & (8) of the National Heritage Resources Act (NHRA). Among other aspects, the NID contemplates palaeontological resources. This was not marked as a potential sensitivity on the site.</p> <p>In response to the NID, HWC confirmation is implicit in that no further assessment of palaeontological resources would be required. Therefore, this potential issue has been scoped out.</p> <p>The Heritage Specialist, CTS Heritage has confirmed that the findings, impacts and mitigations measures identified in the 2018 and 2021 report are still applicable in 2024. These findings have been confirmed within an updated verification letter (refer to Appendix Gi).</p> |
| 5 | Terrestrial Biodiversity Impact Assessment | 3(a) Protocol for the assessment and reporting of environmental impacts on terrestrial biodiversity (GG 45421 of 10/05/2019) _DRAFT | <p>2021 STR Sensitivity: Very High 2024 STR Sensitivity: Very High</p> <p>Actual Sensitivity: Low</p> <p>A botanical impact assessment has been undertaken (refer to Appendix G(b)) and on the 2017 City of Cape Town Biodiversity Network (BioNet) the area is listed as an OESA</p> |

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| | | | <p>(Other Ecological Support Area, Buffer 2) (NCC, 2021). This listing is ascribed to transformed sites of conservation significance. These listed sites are described according to the SANBI BGIS as, 'an open space transformed by agriculture or other activities, essential for protected sites' (NCC, 2021). The significance of this site is that of 'local significance' in that it is required for long-term ecological functioning of natural ecosystems. The OESA significance is listed as, 'Animal Movement' (likely amphibian) (NCC, 2021). Loss would result in degradation of ecological processes & potential loss of biodiversity elements (NCC, 2021).</p> <p>The prescribed objective according to the City of Cape Towns 'BioNet' is to maintain the area as open space & where appropriate restore degraded land to natural or near natural for improved ecological functioning (NCC, 2021). The action needed is recorded as, 'to ensure agricultural activity is compatible with ecosystem processes' (NCC, 2021). Where possible, acquire, rezone & rehabilitate. High priority, but low urgency (15-year horizon). The long-term vision for these types of listed areas is to restore natural ecosystem structure to some of the area to improve ecological processes'. The area is listed as not being ground-truthed, nor is it managed or proclaimed (in terms of a reserve) (NCC, 2021).</p> <p>The site is irreversibly modified and completely unsuitable for Cape Flats Sand Fynbos to persist (NCC, 2021).</p> <p><u>The specialist has since confirmed that there has been no increase or repositioning of infrastructure into sensitive areas (CBAs, wetlands, CR Vegetation remnants etc) since the original 2021 assessment. Nor have any changes to listed status or protection level of environmental features occurred which would be impacted upon by the development. The site itself has not changed in any significant or improved manner. As such all impacts and mitigations remain valid. NCC have confirmed the report findings, impacts and mitigations measures are still valid and applicable in 2024 (please refer to verification letter and updated site sensitivity verification in Appendix G(b))</u></p> |
| 6 | Aquatic Biodiversity Impact Assessment | 3(b) Protocol for the assessment and reporting of environmental impacts on aquatic biodiversity (GG 45421 of 10/05/2019) _ DRAFT | <p>2021 STR Sensitivity: Very High 2024 STR Sensitivity: Very High</p> <p>Actual Sensitivity: Low, but loss of wetland would occur.</p> <p>The development footprint for the preferred alternative for the proposed bus depot has been devised to remain solely within the "less degraded" wetland identified by Steytler & Mugabe (2021), which is also found to have a low/marginal Ecological Importance and Sensitivity (EIS) rating (Steytler & Mugabe, 2021).</p> <p>A Freshwater Impact Assessment has been conducted by Steytler and Mugabe (2021) in Appendix G(a). <u>The specialist has confirmed that the findings of the Freshwater Ecological Specialist Report prepared by Steytler and Mugabe (2021) dated 14.06.21 remains applicable for the purposes of meeting the information requirements for freshwater specialist assessments in terms of the NEMA EIA Regulations (2014, as amended) and the National Water Act, Act 36 of 1998 without necessitating any updates or revisions. Please refer to verification letter in Appendix G(a))</u></p> |
| 7 | Noise Impact Assessment | Noise Protocol for specialist assessment and minimum report content requirements for noise impacts (GG 43110 of 20 March 2020) | <p><u>STRs Sensitivity: Does not mention anything.</u> Actual sensitivity: Low</p> <p>The proposed development would provide staging facilities for 202 buses (noting that there would be capacity for up to 202 day time staging and for up to 61 overnight staging buses), noting that movement of buses to and from the site may not likely be during peak hour traffic. There are also no sensitive</p> |

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| | | | <p>noise receptors adjacent to the proposed development, other than the illegal Bonnytoun settlement.</p> <p><u>Jongens Keet and Associates</u> conducted an assessment in terms of the sensitivity of the site and the potential impacts of the proposed development to confirm sensitivity and the results indicate anticipated noise impacts to be negligible (Jongens, 2021). The Noise Assessment is included in Appendix G(k).</p> <p><u>Subsequent to the submission of Jongens (2021) report, dated 10 July 2021, the specialist has confirmed that no new information is at hand to alter the findings, impacts and noise mitigation measures contained in that report. The report is therefore still applicable. Please refer to verification letter in Appendix G(k)</u></p> |
| 8 | Traffic Impact Assessment | No specific protocol-consider general requirements (GG 45421 of 10/05/2019) _DRAFT | <p><u>STRs Sensitivity: Does not mention anything.</u></p> <p>A Traffic Assessment has been conducted by GIBB and included in Appendix G(e).</p> <p>Recommendations made in this regard are minor and directly related to the site plan (e.g., access point, etc.) as impacts on transport would be low no road upgrades would be required to the local network as a result of the proposed development.</p> <p><u>The specialist has confirmed on the 02nd of February 2024 that with the findings and recommendations of the Transport Impact Assessment prepared by GIBB, and dated 13 July 2021, remains applicable in 2024. Please refer to verification letter in Appendix G(e)</u></p> <p>These have and have been included in the EMPr.</p> |
| 9 | Geotechnical Assessment | No specific protocol-consider general requirements (GG 45421 of 10/05/2019) _DRAFT | <p><u>STRs Sensitivity: Does not mention anything.</u></p> <p>A geotechnical assessment is included in Appendix G(f) which confirms that founding conditions are not suitable as they stand, but that some removal of waste, compaction and infill would be suitable (Brown & Engelsman, 2020).</p> <p><u>The specialist has confirmed that the findings of the Geotechnical Investigation prepared by SRK Consulting, dated October 2020 remains applicable in 2024 for the proposed development in light of the time difference, site layout changes and remediation order issued by the Department of Environmental Affairs and Development Planning (DEA&DP). As such, no changes to the report are necessitated. Please refer to verification letter in Appendix G(f)</u></p> |
| 10 | Hydrology Assessment | No specific protocol-consider general requirements (GG 45421 of 10/05/2019) _DRAFT | <p><u>STRs Sensitivity: Does not mention anything.</u></p> <p>The site is located in an area with a shallow water table, linked with the upper primary aquifer (Naicker & Muller, 2020). Soil is largely described as "slightly clayey sand", the soils classify as SM-SC or SC (Brown & Engelsman, 2020). Note that although Steytler & Mugabe (2021) note that an extremely high clay content was <u>observed</u> within dumped fill material, particularly in the raised portion of the north-western corner of the site, this is within the context of that seen in wetlands and formal data in this regard will defer to the findings of the geotechnical investigation. This also implies that there are certain sections of the site that would have higher clay content than others.</p> <p>A groundwater impact assessment is included in Appendix G(g).</p> <p><u>The specialist has confirmed that upon review of the updated site plans and the existing groundwater specialist reports, GEOSS is of the opinion that the findings of the original impact assessment are still valid. Please refer to verification letter in Appendix G(g)</u></p> |
| 11 | Socio-Economic Assessment | No specific protocol-consider general | <p><u>STRs Sensitivity: Does not mention anything.</u></p> |

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| | | requirements (GG 45421 of 10/05/2019) _DRAFT | <p>The socio-economic aspects of the site and proposal have been considered and addressed in the Basic Assessment Report through inclusion of the following:</p> <ul style="list-style-type: none"> • Socio-economic profile of the communities around the site; and • Detailing the financial contribution of the project to the economy as well as to previously disadvantaged individuals. |
| 12 | Ambient Air Quality Impact Assessment | No specific protocol-consider general requirements (GG 45421 of 10/05/2019) _DRAFT | <p><u>STRs Sensitivity: Does not mention anything.</u> Actual sensitivity: Low</p> <p>The proposed development would not entail any industrial process or production activities and would not trigger any Listed Activities in terms of NEM: AQA. The proposed development would also be located within an urban area. Therefore, it is not believed that an ambient air quality assessment would be applicable to the proposed development.</p> |
| 13 | Plant Species Assessment | 3(d) Protocol for the assessment and reporting of environmental impacts on terrestrial plant species (GG No. 43855 of 30/10/2020) | <p><u>2021 STR Sensitivity: High</u> <u>2024 STR Sensitivity: Very High</u> <u>Actual Sensitivity: Low</u></p> <p><u>The STR indicates a Very High sensitivity in this regard, which is in contrast to the botanical assessment completed for the site (NCC, 2021 and NCC, 2024).</u></p> <p><u>The site is completely (+99%) covered with exotic grass and invasive alien plants (IAP's), there is almost no indigenous species present (let alone cover) thus no species of conservation concern and being a non-ecologically managed open space within an urban environment there is no natural fire regime (NCC, 2021). <u>The soil and water profiles are also highly transformed and therefore, as highly sensitive factors for the survival CFSF, this renders the site irreversibly modified and completely unsuitable for CFSF to persist (NCC, 2021).</u></u></p> <p><u>The full botanical impact assessment is included in Appendix G(b).</u></p> <p><u>The specialist has since confirmed that there has been no increase or repositioning of infrastructure into sensitive areas (CBAs, wetlands, CR Vegetation remnants etc) since the original 2021 assessment. Nor have any changes to listed status or protection level of environmental features occurred which would be impacted upon by the development. The site itself has not changed in any significant or improved manner. As such all impacts and mitigations remain valid. NCC have confirmed the report findings, impacts and mitigations measures are still valid and applicable in 2024 (please refer to verification letter and updated site sensitivity verification in Appendix G(b))</u></p> |
| 14 | Animal Species Assessment | 3(c) Terrestrial Animal Species Protocol for the assessment and reporting of environmental impacts on terrestrial animal species (GG No. 43855 of 30/10/2020) | <p><u>2021 STR Sensitivity: High</u> <u>2024 STR Sensitivity: High</u> <u>Actual Sensitivity: Medium</u></p> <p><u>The Species Environmental Assessment guideline (SANBI, 2020) was applied to assess the Site Ecological Importance (SEI) of the site. The faunal habitats present on site, and the species of conservation concern were assessed based on their conservation importance (CI)², functional integrity (FI)³ and receptor resilience (RR) (Jackson & Martin, 2021).</u></p> |

² **Conservation Importance (CI)** is the importance of a site for supporting biodiversity features of conservation concern present e.g., populations of IUCN Threatened and Near-Threatened species (CR, EN, VU & NT), Rare, range-restricted species, globally significant populations of congregator species, and areas of threatened ecosystem types, through predominantly natural processes.

³ **Functional Integrity (FI)** is a measure of the ecological condition of the impact receptor as determined by its remaining intact and functional area, its connectivity to other natural areas and the degree of current persistent ecological impacts.

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| | | | <p>Based on these indicators, the degraded depression wetland on site is considered to have a very low SEI at habitat level (Jackson & Martin, 2021). The species level SEI assessment of the WLT concluded that the species is considered to have a high CI (given the 'Endangered' status), and because the site may offer a corridor to non-breeding season across transformed habitat, especially given the busy road network surrounding it, the FI of the species is considered to be low (Jackson & Martin, 2021). The project area has a have a High RR and thus a Medium SEI (Jackson & Martin, 2021).</p> <p>A Faunal Impact Assessment (which includes contemplation of Animal Species), noting that the report also addresses avian species, is included in Appendix G(h).</p> <p><u>The specialist has since confirmed that given the project footprint has remained the same and only the internal layout has changed it is the opinion of the specialist that the findings presented in the original report (CES, 2021) remain valid. Please refer to verification letter in Appendix G(h)</u></p> |
| 15 | Avian Assessment (2021 STR) | <p>No specific protocol-consider general requirements (GG 45421 of 10/05/2019) _DRAFT</p> <p>Note that there are avian assessment protocols for impacts on avifaunal species by onshore wind energy generation facilities, but this is not such a facility and so that protocol does not apply.</p> | <p><u>STRs Sensitivity: Does not mention anything.</u></p> <p>Actual Sensitivity: Low</p> <p>The proposed development would not comprise of components which typically pose a threat to avian species such as emissions/ emission stacks, turbines, transmission lines, etc. Therefore, the avian impacts would largely be related to habitat and the potential loss thereof.</p> <p>The project area falls within the distribution ranges of 11 threatened bird species, 4 of which are considered 'Endangered' and 7 'Vulnerable' (Jackson & Martin, 2021). Although the site may provide a hunting area to some raptor species such as the Black Harrier (<i>Circus maurus</i>) which is listed as 'Endangered', it is unlikely that any of concern use the site as a breeding area (Jackson & Martin, 2021). The site is dominated by common bird species that are able to easily adapt to urban environments (Jackson & Martin, 2021).</p> <p>Given the above findings, no stand-alone avian impact assessment has not been conducted, however the faunal impact assessment considers and address the potential for impacts on avian fauna (refer to Appendix G(h)).</p> |
| 16 | Civil Aviation Theme | Civil aviation assessment (in accordance with the protocol prescribed in GNR 320) | <p><u>2021 STR Rating: High</u> <u>2024 STR Sensitivity: High</u></p> <p><u>Actual Sensitivity: Low</u></p> <p><u>The STR notes that the site is located within 15km of a civil aviation radar and within 8 km – 15 km of a major civil aviation aerodrome. This is presumably as a result of the Youngsfield military base.</u></p> <p><u>The proposed development of the bus depot would, however, not affect any civil aviation activities given that the structures proposed are not significantly high and do not comprise any telecommunications structures that may have potential to interfere with aviation activities. There are also no proposed runway facilities or any other activity within the project that could affect this sensitivity or its operations. This rating is therefore disputed to, in fact, be Low (noting that the DEA&DP has provided agreement with this in their comment on the NOI- Appendix M)</u></p> <p><u>As such, no specialist investigations are deemed necessary.</u></p> |
| 17 | Defence Theme | | <p><u>2021 STR Rating: Very High</u> <u>2024 STR Sensitivity: Very High</u></p> <p><u>Actual Sensitivity: Low</u></p> <p><u>Defence is rated as Very High sensitivity in the STR.</u></p> |

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| | | <p>The screening report identifies the site area being within close proximity to a 'Military and defence site', but no further details area provided in this respect. These sensitivities are presumably as a result of the site being adjacent to the Youngsfield military base and ~2.4km east of the Wynberg military base (as the crow flies).</p> <p>It is highlighted that none of the components comprising the development proposal would compromise the ability of the defence force to defend the area against any unrest / threats on security or provide training and support to military personnel or affect the day-to-day operations of the base.</p> <p>The proposed development would not interfere with any communications to and from the facility (the proposal does not include telecommunications infrastructure beyond typical internet and phone connections) and would not interfere with any access points (as it is located sufficiently far from it).</p> <p>As such, this rating is disputed to, in fact, be Low (refer to DEA&DP's agreement with this rating in their comment on the NOI in Appendix M). As a result, no specialist investigations are deemed necessary.</p> |
| The following additional specialist studies have been undertaken (which have not come as recommendations from the STR): | | |
| 18 | <u>Land Contamination</u> | <p>SRK Consulting (South Africa) (Pty) Ltd (SRK) was appointed to undertake a geotechnical and contaminated site assessment at the site of the proposed Wynberg IRT Depot accessed from Wetton Road in Wynberg because of previous illegal dumping activities and in order to provide clarity in terms of the Part 8 NEM: WA process (please refer to Appendix G(I)).</p> <p>The specialist has confirmed in 2024 that the findings and recommendations of SRK Report 567445/1 remain valid for the proposed MyCiTi Bus Depot development. Please refer to verification letter in Appendix G(I)</p> |
| 19 | <u>Major Hazard Installation (MHI) Risk Assessment:</u> | <p>As diesel has the potential to cause onsite and offsite incidents, Major Hazard Risk Consultants cc was commissioned to conduct a Risk Assessment in accordance with international standards to determine the impact of the facility on the surrounding area. This investigation would serve as a basis for the notification of the facility in accordance with the Major Hazard Installation Regulations.</p> <p>The purpose of the report is to convey the essential details, including a short description of the hazards, the receiving environment, the design, the risks and consequences of an accident.</p> <p>This report is included in Appendix G(I). The report has a validity of five years.</p> |
| Refer to Appendix O for the Site Sensitivity Verification Report. | | |

SECTION D: APPLICABLE LISTED ACTIVITIES

List the applicable activities in terms of the NEMA EIA Regulations

| Activity No(s): | Provide the relevant Basic Assessment Activity(ies) as set out in Listing Notice 1 | Describe the portion of the proposed development to which the applicable listed activity relates. |
|-----------------|--|---|
| 19 | <p><i>The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse;</i></p> <p><i>but excluding where such infilling, depositing, dredging, excavation, removal or moving—</i></p> | <p>A large portion of the site is located within a wetland, albeit a degraded wetland. Infilling of this wetland would be required to achieve the proposed development.</p> <p>As such, this listed activity will be triggered.</p> |

| | | |
|-----------------|--|--|
| | <ul style="list-style-type: none"> i) will occur behind a development setback; ii) is for maintenance purposes undertaken in accordance with a maintenance management plan; iii) falls within the ambit of activity 21 in this Notice, in which case that activity applies; iv) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or v) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies | |
| Activity No(s): | Provide the relevant Basic Assessment Activity(ies) as set out in Listing Notice 3 | Describe the portion of the proposed development to which the applicable listed activity relates. |
| 4 | <p>The development of a road wider than 4 metres with a reserve less than 13, 5 metres.</p> <p><u>Western Cape</u></p> <ul style="list-style-type: none"> i) Areas zoned for use as public open space or equivalent zoning; ii) Areas outside urban areas: <ul style="list-style-type: none"> (aa) Areas containing indigenous vegetation; (bb) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined; or iii) Inside urban areas: <ul style="list-style-type: none"> (aa) Areas zoned for conservation use; or (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority. | <p>The emergency road as well as the relocated Bonnytown access road to the west of the site would be constructed in an area which is confirmed to be an "Other Ecological Support Area" (OESA) as well as Public Open Space and a buffer zone, therefore this listed activity is included given that exact measurements would be confirmed in detail design, noting that they would both be relatively short roads.</p> <p>The two roads are indicated in Figure b above.</p> |
| 12 | <p>The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</p> <p><u>Western Cape</u></p> <ul style="list-style-type: none"> i) Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; ii) Within critical biodiversity areas identified in bioregional plans; iii) Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas; iv) On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning; or v) On land designated for protection or conservation purposes in an Environmental Management Framework adopted in the prescribed manner, or a | <p>The site is mapped as a critically endangered ecosystem and is located within City of Cape Town's EMF as wetlands and buffer areas. The site is also zoned as Public Open Space. The site has been assessed by a botanist and the assessment indicates that it is highly transformed with limited indigenous vegetation. However, it is likely that 300m² in total (although sporadically spread throughout the site) may need to be cleared, hence the inclusion of this listed activity.</p> |

| | Spatial Development Framework adopted by the MEC or Minister. | |
|---|--|---|
| 15 | <p>The transformation of land bigger than 1000 square metres in size, to residential, retail, commercial, industrial or institutional use, where, such land was zoned open space, conservation or had an equivalent zoning, on or after 02 August 2010.</p> <p><u>Western Cape</u></p> <ul style="list-style-type: none"> i) Outside urban areas, or ii) Inside urban areas: <ul style="list-style-type: none"> aa) Areas zoned for conservation use or equivalent zoning, on or after 02 August 2010; bb) A protected area identified in terms of NEMPAA, excluding conservancies; or cc) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act as adopted by the competent authority. | The site is zoned Public Open Space and is located within wetland and buffer zones denoted in terms of the City of Cape Town EMF. The proposed development would also be larger than 1000m ² . |
| <p>Note:</p> <ul style="list-style-type: none"> The listed activities specified above must reconcile with activities applied for in the application form. The onus is on the Applicant to ensure that all applicable listed activities are included in the application. If a specific listed activity is not included in an Environmental Authorisation, a new application for Environmental Authorisation will have to be submitted. Where additional listed activities have been identified, that have not been included in the application form, and amended application form must be submitted to the competent authority. | | |

It should be noted that **Listed Activity 14 of Listing Notice 1** has been contemplated as the proposed depot would house diesel storage facilities. The total combined capacity would be 28 m³. This is less than the threshold indicated in the Listed Activity, and therefore, this Listed Activity is **not** triggered. Similarly, **Listed Activity 10 of Listing Notice 3** has also been considered, however the total combined capacity would be less than the listed threshold of 30m³ and so this Listed Activity also is **not** triggered. Furthermore, the potential hazardous materials associated with activities undertaken in the proposed spray booth, wash bay and workshop facilities (oil, paints etc.) would be below 2m³, thus the combined capacity of dangerous goods on site would not meet the 30 m³ threshold. The technical team has also been briefed on this and have been advised to inform the EAP should any changes to storage of dangerous goods and hazardous chemicals change on site. It must be noted that there are underground tanks proposed for the future development of the project, which spans over into they year 2050. These activities will be applied for via the respective amendment processes.

Listed Activity 18 of Listing Notice 3 has also been considered, but no road widening is required given that the TIA confirms no road upgrades are needed and so this Listed Activity would **not** be triggered. Further, the Listed Activity which contemplates new roads (for the realigned Bonnytown access road and emergency road) is included in the application/ table for activities triggered above.

Listed Activity 27 of Listing Notice 1 has also been contemplated and it is not believed to be triggered. Given the highly transformed state of the site and limited presence of indigenous vegetation, it is not likely that as much as 1Ha of indigenous vegetation exists on- and would be- cleared from the site. The Department's comment on the applicability of this listed activity is, however, requested. NCC (2021) provides further clarity on this point noting that the full definition of "indigenous vegetation" is "vegetation consisting of indigenous plant species occurring naturally in the area, regardless of the level of alien infestation and where topsoil has not been lawfully disturbed during the preceding ten years". The only indigenous plant species on site were identified in the botanical baseline, and the topsoil in the site has been disturbed given the extensive dumping that has occurred both prior to and within the past ten years (although the "lawful" aspect thereof is in question, given that dumping on that site is illegal). The draft botanical assessment report (which is still in progress and has not yet been released beyond the project team) further states the following in this regard: "*Indigenous vegetation: refers to vegetation consisting of indigenous plant species occurring naturally in an area, regardless of the level of alien infestation and where the topsoil has not been lawfully disturbed during the preceding 10 years*" (Environmental Impact Assessment Regulations: Listing notice 3 of 2014). It is suggested that this site should not be seen as, 'indigenous vegetation despite the level of alien infestation' as this description is in all likelihood purposed for badly infested sites comprising a semblance of indigenous vegetation, not a site that has been completely transformed where little to no indigenous vegetation, despite ad hoc 'plants' as individuals, not 'vegetation' exists. Discretion and common sense is a principle applied to what constitutes, 'clearance' which is the context from where the description has been taken an and as such common sense should likewise be applied to what invaded, 'indigenous' vegetation is and what, 'replaced exotic' vegetation is."

Then, **Listed Activity 24 of Listing Notice 1** has also been contemplated and this activity does not trigger because the proposed roads (i.e., emergency access road and the Bonnytown road) are within an urban area and would be shorter than 1km and so fall under the exclusions for this activity.

Lastly, it should be noted that neither of the embayments would trigger any listing notices as they would be added to an existing road, located within an urban area, and not be within land zoned as Public Open Space. The same applies for the Wetton Road/ Racecourse Access Road intersection as the intersection upgrade proposal was approved by the City of Cape Town's Transport Directorate as part of the development application process (for the Kenilworth Racecourse development) and the development and the proposed intersection upgrade is on an existing road (which would be widened) and within an urban area, as well as not located in any

environmentally sensitive areas in terms of the City of Cape Town Biodiversity Network, so it would not trigger the need for Environmental Authorisation, but is included as a condition of approval herein because it is a recommendation from the transport engineer/specialist.

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

| Activity No(s): | Provide the relevant Basic Assessment Activity(ies) as set out in Category A | Describe the portion of the proposed development to which the applicable listed activity relates. |
|-----------------|---|---|
| Not applicable | <p>The proposed development does not store, treat, or process waste in any volumes which related to triggers in terms of the NEM: WA.</p> <p>While the proposed development has not produced waste, there is an existing waste body on the site which would have to be removed. The intention is to only remove the waste which is necessary and only that within the limits of the proposed depot site, sufficient to provide for the necessary appropriate founding conditions. Therefore, only a portion of the existing fill material (waste) would be removed, and additional fill would be imported and compacted, as follows:</p> <ul style="list-style-type: none"> • Remove about 1.5m to 2.0m of fill from final design road level (to ensure uniformity and to bridge the variability further down); • Import 300 to 600mm rockfill layer as roadbed (to create a solid working platform); • Import 600 – 900mm fill layer (min G9 Quality material) prefer imported, instead of setting up a crusher (as consistency of material is important); • Follow with an 800mm thick structural pavement on top; and • The surface options would be between semi rigid (block paving) or a flexible pavement (asphalt (to allow for potential settlement/ differential settlement and easier to repair afterwards)- depending on the site location. <p>It is proposed that the above be considered as "capping" or "closure" of the waste body on site, which would likely require a Waste Management License. The cross-section of these layer works may differ slightly depending on the area of the site (i.e., landscaping and the <u>lined</u> stormwater pond would require different top layers).</p> <p>The EAP has been liaising with the Department's Waste Management and Contaminated Land officials in this regard, with the first correspondence being sent on 22 January 2021. Additional information was requested, and all provided. Final feedback from the DEA&DP: Waste Management branch has been provided (refer to Appendix E11) in their letter dated 19 February 2021, referenced 19/2/5/R, and they have confirmed that a Waste Management License would not be required, but rather that a process in terms of Part 8 of the NEM: WA (i.e., contaminated land remediation) be followed.</p> <p>Notification of the potential contamination of the site was submitted to DEA&DP Pollution and Chemicals Management on 4 May 2021 (refer to Appendix P1 for evidence).</p> <p><u>The Department has since identified the site as an 'Investigation Area' in terms of Section 36 (6) of the NEM: WA and a Notice was issued in this regard on 20 January 2023 (refer to Appendix P2).</u></p> | Not applicable, as confirmed by DEA&DP: Waste Management branch (refer to Appendix E11). |

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| | <p><u>A response to the Notice was provided to the Department by the EAP on behalf of the proponent on 17 February 2023. The response outlines the tasks to be undertaken by the City of Cape Town before commencement of construction to address the Department's concerns related to potential contamination on site, as raised in the Notice (refer to Appendix P3 for the response). It was assumed that the Part 8 process would continue separate to this environmental application, however, on 10th July 2023, the City of Cape Town, via Chand Environmental were requested to withdraw the Application for Environmental Authorisation and submit a new application once the results for soil, groundwater and freshwater have been assessed and reviewed and commented on by the DEA&DP: Pollutions and Chemicals Management. These results can be found under Appendix P4 and Appendix P5.</u></p> <p><u>On the 21st of December 2023, a Remediation Order was issued by DEA&DP under Section 38(3) of the National Environmental Management: Waste Act (Act 59 of 2008) for the contamination of the Wynberg waste dumping site on Erven 90475/RE, 90470 and 91191, Wetton Road, Wynberg (Reference number: 19/3/5/39) (refer to Appendix P8). Within the Remediation Order the Department decided that the investigation area is deemed contaminated, presents an immediate risk, and that measures are required to monitor and manage the risk. Several measures to be undertaken to monitor and manage the risk were conditioned within the Remediation Order. These measures have been included within this report and the EMPr.</u></p> | |
|--|---|--|

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

| Activity No(s): | Provide the relevant Listed Activity(ies) | Describe the portion of the proposed development to which the applicable listed activity relates. |
|-----------------|---|---|
| Not applicable | <p>The activities conducted during all phases of the proposed development will not directly emit any emissions related to the NEM: AQA.</p> <p>The only emissions related to the proposed development would be the vehicular emissions from the vehicles using the depot, noting that the depot is being designed with the flexibility to accommodate a small component of electric buses, should the City invest in this alternate bus type in the future.</p> | Not applicable |

SECTION E: PLANNING CONTEXT AND NEED AND DESIRABILITY

| | |
|--|---|
| 1. | Provide a description of the preferred alternative. |
| <p>Refer to Section B 3.3 above.</p> <p>To summarise, the preferred alternative comprises Layout Alternative 2 of a bus depot (refer to Figure c) which would provide staging facilities for approximately 202 busses (noting that there would be capacity for up to ~202 day time staging and for up to ~61 overnight staging buses). The detailed design of the proposed depot would still be determined, but there would be basic components as follows:</p> <ul style="list-style-type: none"> • Re-alignment of the Bonnytown access road to the west of the proposed depot. • Refuelling area (2 x underground diesel storage tank with capacity of 14m3 each) which would include a refuelling office and an additional AdBlue Store area (to hold an approximately 280 litre tank- i.e., 1% of fuel storage capacity); | |

- Wash bay (manual wash only), including support buildings (potentially with automated wash bays as well as deep clean wash bays and all water used in the wash bay would be recycled);
- Parking area (staff and visitors);
- Workshops (where vehicle maintenance and repairs would occur);
- Possible spray booth with the following typical components for a closed system;
- Spray Booth Structure, manufactured from insulated panels (Rock Wool or EPS);
 - Air Intake Systems;
 - Air Intake Filtration System;
 - Air Extraction Systems;
 - Entrance and Exit Doors at opposing ends of spray booth;
 - Heating Systems which automatically regulate the internal temperature during spray painting mode;
 - Ceiling and Side Wall Lights; and
 - Electrical Control System.
- Admin buildings for drivers and staff (e.g., driver dispatch facility, driver mess and recreational facilities);
- Security buildings at the main entrance;
- Double-fencing around perimeter;
- Landscaped areas around the depot; and
- Stormwater drainage and attenuation infrastructure.

Access would be off Wetton Road and there would be two embayments for drop-off/pick-up purposes (refer to Figure ii). Note that the Wetton Road/ Racecourse Access Road intersection would be upgraded and signalised if it is not already done by the time the development of the proposed development commences.

The proposed depot would be serviced through existing connections to the City of Cape Town supply in terms of water, sanitation as well as electricity. Refuse collection would also likely be provided by the City of Cape Town (subject to the waste branch comment on the pre-application draft BAR) or would be removed by a private contractor.

Stormwater would be managed on site, within the limits of the proposed development footprint, through capture in permeable pavers, which would run to a lined stormwater pond in the north-east corner of the site. The pond would treat the stormwater to acceptable quality standards for discharge into the wetlands to the east of the site.

While the lining of the pond is to be confirmed during the detailed design phase, preliminary specialist recommendations have indicated the options available for lining of retention ponds include either lining the pond with naturally occurring materials creating a soil liner, or a synthetic liner. When selecting an appropriate liner the following will be considered:

- The selected material must be durable enough to withstand the installation process.
- The material must have the characteristics to resist punctures.
- The material must be able to withstand multi axial elongation stress and strains associated with any settlements and/or imposed load due to permanent and/or temporary water storage within the retention pond.

The stormwater management system on site would also be designed to accommodate the loss of function that infilling the wetlands for the proposed development would cause. This plan has achieved in principal approval from the City of Cape Town Roads and Stormwater branch (refer to Appendix G(c)).

There would also be water quality monitoring boreholes at key locations throughout the site.

Although there is limited space available for landscaping, the implementation of soft landscaping has been considered as far as possible and would include aspects such as tree planting, appropriate edge treatment, as well as making use of appropriate planting in support of stormwater management on the site. Refer to **Figure c** as well as to **Appendix N** for the draft landscape plan.

Note that the construction of the proposed development as well as the landscaping would be done in phases whereby primary infrastructures and buildings to enable operation will be prioritised and constructed first. This application is for the entire proposed development.

2. Explain how the proposed development is in line with the existing land use rights of the property as you have indicated in the NOI and application form? Include the proof of the existing land use rights granted in Appendix E21.

Erf 91191 is zoned as Public Open Space (OS2) and Public Road and Public Parking (T2), Erf 90475-RE is zoned as Community 1: Utility and Public Open Space (OS2), and Erf 90470 is zoned as Community 1: Utility.

Refer to the extract from the Zoning Map in **Appendix E21**.

The applicable Zoning Scheme is the Amended City of Cape Town Municipal Planning By-law. A land use application will be made in terms of this By-law, however there are certain rights currently ascribed to the affected erven.

The current zoning permits the land use rights as per the Amended City of Cape Town Municipal Planning By-law. These are indicated in **Table 2** and **Table 3** below. Other than the primary uses listed in **Table 2** and **Table 3**, that are 'as of right' land use rights within the current zoning, no other approvals are in place.

Table 2. Erf 91191 and 90475-RE Current Permitted Land Uses for Open Space Zoning 2 in terms of the Amended City of Cape Town Municipal Planning By-law (source: Andre Roux Town Planning, February 2021)

| PRIMARY USES | CONSENT USES |
|-------------------|--------------------------|
| Public open space | Environmental facilities |

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|---|--|
| Environmental conservation use Minor freestanding base telecommunication station Minor rooftop base telecommunication station | Tourist facilities Utility services Cemetery Rooftop base telecommunication station Freestanding base telecommunication station Wind turbine infrastructure Cultural and social ceremonies Urban agriculture Informal trading Harvesting of natural resources Air and underground rights |
|---|--|

Table 3 Erf 90470-RECurrent Permitted Land Uses for Community Zoning 1 in terms of the Amended City of Cape Town Municipal Planning By-law (source: Andre Roux Town Planning, February 2021)

| PRIMARY USES | CONSENT USES |
|---|---|
| Place of instruction Place of worship Clinic Rooftop base telecommunication station Filming Minor freestanding base telecommunication station Minor rooftop base telecommunication station Open space | Institution Hospital Place of assembly Cemetery Freestanding base telecommunication station Veterinary practice Urban agriculture |
| Additional Zoning Regulations applicable: <ul style="list-style-type: none"> • Maximum Floor Factor: 0,8 • Maximum Coverage: 60% • Maximum Height: 12m (measured from existing ground level to the top of the roof) • Street boundary building line: 5m • Common boundary building line: 5,0m | |

There are no existing Environmental Authorisations applicable to the site, as far as the project team is aware.

In terms of other approvals, there is an internal process which the City of Cape Town undertakes when reserving City of Cape Town property. The process is carried out in terms of Section 17 of the Policy on the Management of Certain of the City of Cape Town's Immovable Property and reservation of the site (i.e., a portion of erven 90470, 90475 and 91191) for utilization of a MyCiTi bus facility (subject to conditions) was approved on 27 August 2020. Refer to **Appendix Q** for this document.

The proposed development is not permitted 'as of right' in terms of the primary and / or additional rights permitted in terms of the Amended City of Cape Town Municipal Planning By-law because the type of use intended (i.e., as a bus depot) is not compatible with the current zoning on all three erven. Therefore, a land use application in terms of the Amended City of Cape Town Municipal Planning By-law would be undertaken in parallel with this application for Environmental Authorisation.

In terms of alignment of the proposed development with the existing rights held by the site, note that the proposal for the Wynberg Depot is not aligned with the current land uses associated with the site. To permit the proposed land use, and to create a separate land parcel for the proposed bus depot, Mr. Andre Roux (Town Planner) confirms that application would be made for:

- The subdivision of Erf 91191, Cape Town into three portions;
- The subdivision of Remainder Erf 90470, Cape Town into two portions;
- The subdivision of Remainder Erf 90475, Cape Town into three portions;
- The consolidation of proposed Portion 1 of Erf 91191, Cape Town, Portion 1 of Remainder Erf 90470, Cape Town and Portion 1 of Remainder Erf 90475, Cape Town;
- The rezoning of the proposed consolidated property from Open Space Zoning 2 and Community Zoning 1 to Transport Zoning 1; and
- A permanent departure to permit a carriageway crossing with a width of 24,2m in lieu of 8,0m.

Transport Zoning 1 is deemed the most appropriate zoning for the proposed bus depot as the depot is classified as a "transport use", which is permitted as a primary land use right in this zoning (A Roux Town Planning, February 2021). The permitted uses in terms of this zoning are indicated in **Table 4**.

Table 4 Permitted Land Uses for Transport Zoning 1 in terms of the Amended City of Cape Town Municipal Planning By-law (source: Andre Roux Town Planning, February 2021)

| PRIMARY USES | CONSENT USES |
|---------------|-------------------|
| Transport use | Business premises |

| | |
|---|---|
| Multiple parking garage Utility service Shop Restaurant Service trade Office Warehouse Rooftop base telecommunication station Minor freestanding base telecommunication station Minor rooftop base telecommunication station Container site | Flats Place of assembly Place of entertainment Hotel Conference facility Service station Motor repair garage Freestanding base telecommunication station Wind turbine infrastructure Airport Helicopter landing pad Informal trading Industry Air and underground rights |
| Additional Zoning Regulations applicable: <ul style="list-style-type: none"> • Maximum Floor Factor: 2,0 • Maximum Coverage: 75% • Maximum Height: 18m (measured from existing ground level to the top of the roof) • Street boundary building line: 0m • Common boundary building line: 3,0m | |

From a NEMA perspective, the proposed development would constitute a new development which requires infilling of wetlands, clearing of indigenous vegetation and development of infrastructure which would require storage of hazardous substances on land zoned as Public Open Space. This would require Environmental Authorisation and is not permitted without this, hence this Basic Assessment process to apply for Environmental Authorisation.

The proposed development has also been authorised by the Department of Water and Sanitation (DWS) through the approval of a Section 21c and Section 21i Water Use License (01/G22D/CI/12144) (please refer to **Appendix E3**).

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

Refer to **Section E2** above.

To summarise, in terms of land use, to permit the proposed land use, and to create a separate land parcel for the proposed bus depot, Mr. Andre Roux (Town Planner) confirms that application would be made for:

- The subdivision of Erf 91191, Cape Town into three portions;
- The subdivision of Remainder Erf 90470, Cape Town into two portions;
- The subdivision of Remainder Erf 90475, Cape Town into three portions;
- The consolidation of proposed Portion 1 of Erf 91191, Cape Town, Portion 1 of Remainder Erf 90470, Cape Town and Portion 1 of Remainder Erf 90475, Cape Town;
- The rezoning of the proposed consolidated property from Open Space Zoning 2 and Community Zoning 1 to Transport Zoning 1; and
- A permanent departure to permit a carriageway crossing with a width of 24,2m in lieu of 8,0m.

This process, however, if the proposed development is granted Environmental Authorisation, would serve to allow for the proposed development to legally be developed in terms of the NEMA.

The proposed development has also been authorised by the Department of Water and Sanitation (DWS) through the approval of a Section 21c and Section 21i Water Use License (01/G22D/CI/12144) in terms of the NWA (please refer to **Appendix E3**).

4. Explain how the proposed development will be in line with the following?

4.1 The Provincial Spatial Development Framework.

The Western Cape Spatial Development Framework (PSDF) was approved in 2014 and endorsed by the Provincial Cabinet (per comms, A. Roux, February 2024). The PSDF's policy framework covers Provincial spatial planning's three interrelated themes, namely (1) Sustainable use of the Western Cape's spatial assets, (2) Opening-up opportunities in the Provincial space-economy, and (3) Developing integrated and sustainable settlements (per comms, A. Roux, February 2024).

The PSDF emphasises the need for public transport investment and higher order facilities to be prioritised in district centres (per comms, A. Roux, February 2024). The following policies are included within the PSDF's spatial policies to improve inter and intra-regional accessibility:

- Improve intermodal integration and regional linkages of all public transport-based services through linking localized public transport between villages and towns with regional multi-modal transport hubs (per comms, A. Roux, February 2024).
- Rank, prioritize and develop fully integrated Rapid Public Transport Networks (IRPTN) in the regional urban centres of the province such as the Cape Town Metro (per comms, A. Roux, February 2024).
- Direct public funding to unlocking well-located land within cities and towns to reduce the operating costs of public transport (per comms, A. Roux, February 2024).
- Develop a safe public transport system, while emphasizing densification and opportunities for the poor to achieve adequate thresholds along all public transport routes and corridors (per comms, A. Roux, February 2024).

| | |
|------|---|
| 4.2 | The Integrated Development Plan of the local municipality. The SDF forms part of the IDP and shows that the site lies within the urban edge. |
| 4.3. | <p>The Spatial Development Framework of the local municipality.</p> <p>Note that this entire section has been provided by the Town Planner (A Roux Town Planning) in January 2024.</p> <p>The 2023 Municipal Spatial Development Framework (MSDF) represents the five-year review of the CTSDf as required by the Spatial Planning and Land Use Management Act (No.16 of 2014) (SPLUMA). The review of the CTSDf forms part of the annual IDP process and reflects the new strategies and policies which have been adopted by the City of Cape Town since 2012.</p> <p>The MSDF argues that, to address Cape Town's fragmented spatial form and inefficiencies, harness potential, mitigate negative trends, and optimise scales of efficiency associated with investment commitments, the City needs to consider property and development economics, land use, and transport in an integrated manner.</p> <p>Notwithstanding the challenges affecting the rollout of Cape Town's public transport network, the City's objective to intensify land use around public transport remains a firm commitment. The Comprehensive Integrated Transport Plan provides the strategic guidance framework within which the 2032 IPTN was developed. It outlines the strategic approach to designing an integrated public transport network for Cape Town that:</p> <ul style="list-style-type: none"> • responds to the mobility needs of the future city; • achieves an appropriate mix of modes; and • provides a sustainable balance of adequate capacity and reduced travel time for all trips. <p>The approved 2032 IPTN Plan (currently being reviewed) was used as basis for this MSDF, encompasses rail-and road-based modes as well as proposals for improving non-motorised transport access and park-and-ride facilities at modal interchanges. It determines which modes are best suited to meet existing and future public transport demand, route descriptions and modal interchanges, station and stop locations, system operational parameters, infrastructure needs and estimates of total system costs.</p> <p>Since the approval of the 2018 MSDF, one of the primary shifts in focus from the 2032 IPTN Plan has been an emphasis on multi-modality, which involves addressing all public transport modes rather than having a specific focus on rail and BRT. Emphasis is placed on financial and fiscal sustainability and resilience, thus necessitating incremental improvements to the public transport network.</p> <p>Passenger rail and BRT are bolstered by quality bus services and supplemented by improved demand-responsive minibus-taxi services as well as new-generation technological advancements (e.g., e-hailing), all of which come together to form an integrated public transport system. These modes will also be complemented by improved provision of non-motorised transport.</p> <p>The long-term network plan indicates public transport corridors that have been prioritised for implementation as funding becomes available. The public transport routes, as defined in the approved IPTN 2032 Plan consist of:</p> <ul style="list-style-type: none"> • the existing rail network; • the planned Blue Downs rail link; • the extension of the Strand line; and • the existing and planned BRT trunk routes. <div> </div> <p>Figure d. Integrated Public Transportation Network – 2032 (MSDF) (Source: A. Roux, January 2024)</p> <p>Spatial Transformation</p> |

Spatial transformation is based on reversing the impact of apartheid spatial planning by creating more opportunities for more people in highly connected areas. Further, it seeks to encounter the creation of new low-income communities on the periphery of the city and the need for the poor to spend a disproportionate amount of their income on transport. The basis for growth management in the City is established via four primary Spatial Transformation Areas (STA's):

- An Urban Inner Core
- Incremental Growth and Consolidation Areas
- Discouraged Growth Areas
- Critical Natural Areas

The site is situated within Urban Inner Core (refer to **Figure e**). According to the MSDF, the City, public, and private sectors are committed to coordinated, spatially targeted investment and land development to spatially transform and integrate the city form.

The desired spatial outcomes and land use guidelines for the Urban Inner Core include diverse and dense land uses in association with current and future public transport infrastructure provision.

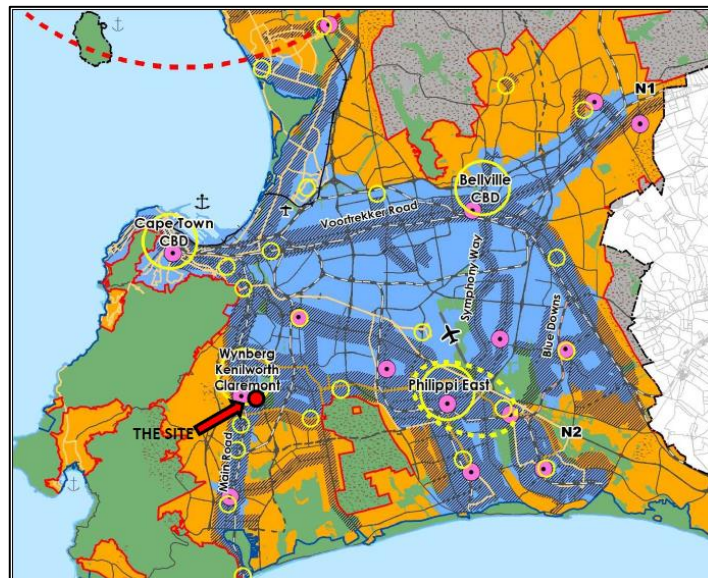


Figure e. The MSDF Spatial Transformation Areas (Source: A. Roux, January 2024)

Development Directives

The MSDF identifies a set of development directives based on environmental, risk and social factors which are likely to impact on the development potential of sites and may trigger additional legislative processes. These directives are illustrated on a series of maps.

Map 5b (Biodiversity Network and Marine Protected Areas) indicates a wetland (blue) and "other ecological support areas (Buffer 2)" (yellow) on a portion of the site (refer to XXX). The proposed depot site encroaches into a portion of the wetland area as identified on this map.

As demonstrated in the report, the exact areas of the "degraded" and "less degraded" wetlands have been determined by a freshwater study. Even though the proposed depot site does not encroach into the asserted "less-degraded" wetland area, the minor inconsistency with Map 5b is still regarded as a deviation from the MSDF and an application for deviation from the MSDF therefore needs to be included.



Figure f. Extract of the MSDF Biodiversity Map with the approximate area of the site (Source: A. Roux, January 2024).

MSDF Policy Guidelines

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| | <p>The MSDF contains a set of policy guidelines which provide a guide for consideration of land development assessments of development applications and preparation of sector plans, lower-order spatial plans, detailed policies, guidelines and implementation plans. The following policy is relevant to the proposed IRT depot development on the site:</p> <p>Policy 6: Plan and prioritize for the expansion of the public transport network in support of the integrated public transport and the City's Integrates Transport Plan (CTIP):</p> <ul style="list-style-type: none"> • P6.1 - The assessment of land development proposals and decision making should include the following as relevant considerations: <ul style="list-style-type: none"> ◦ Ensure adequate provision is made for public transport routes and facilities in the layout including universal access aligned to the City's approved Universal Access Policy. ◦ Proposed land development layouts should facilitate access to public transport provision, inclusive of e-hailing services. ◦ Built form and scale of land use must respond appropriately (in terms of density and land use mix) to existing and proposed public transport and station locations. ◦ Access and safety for all, particularly women, children, persons with disabilities and older persons is prioritised. ◦ Provision of opportunities for park-and-ride facilities (including shared parking opportunities), subject to local assessments and transport planning. ◦ Location and design of stations allow for future extension that can accommodate additional capacity and ancillary functions, such as retail or social facilities. • P6.2 - Prioritise collaboration with other spheres of government to ensure the safe and reliable operation of public transport. • P6.3 - Facilitate and implement projects to support the IPTN in terms of: <ul style="list-style-type: none"> ◦ routing public transport services according to the public transport route alignment spatial planning principles; ◦ ensuring safe and convenient movement between modes at transport interchanges; and ◦ maintaining quality, landscaped public spaces and facilities in public transport reserves and on adjacent land. • P6.4 - Improve integration of all forms of transport, including innovative transport models (e.g. e-hailing and electronic vehicles), with an emphasis on integrating informal minibus taxis with rail, bus, cycling and walking routes. <p>It is thus evident that the proposed IRT bus depot development is aligned with the policies and strategies of the MSDF as it will facilitate the roll-out of high-quality and efficient public transport infrastructure and systems that will contribute towards integrated and sustainable urban growth.</p> |
| 4.4. | The Environmental Management Framework applicable to the area. |
| | <p>The site is located in an area marked as "wetlands" and "Other Ecological Support Area (Buffer 2)" in the Biodiversity Network thematic overlay of the CTMSDF (refer to Figure f). Therefore, alignment of the proposed development in those areas would need to be subjected to further assessment. Specialist freshwater, botanical and faunal assessments have been undertaken in order to establish the full impact of the proposed development on the site and environmental context. Refer to Section E 5 below for more detail on the response of the proposed development to these specific studies, and to the impact assessment summary in Table 17 and Table 18.</p> <p>Overall, biophysical impacts are considered to be a combination of positive and negative impacts with the positive impacts largely being related to socio-economic impacts and two biophysical impacts in terms of freshwater (improvement to water quality) and botanical (reduced contamination leachate), while negative impacts can be anticipated from a faunal, freshwater, botanical, and groundwater perspective. Noise and MHI risk would be negligible/low and there would be no heritage impacts. All negative impacts can, however, be mitigated to acceptable levels (as confirmed through specialist assessment, most notably in terms of groundwater and the faunal impact related to reduced movement/corridor area for the Western Leopard Toad).</p> |
| 5. | Explain how comments from the relevant authorities and/or specialist(s) with respect to biodiversity have influenced the proposed development. |
| | <p>The proposed development would inadvertently respond to the WCBSP and City of Cape Town Biodiversity Network through addressing issues indicated in the specialist assessments (i.e., faunal, freshwater, and botanical), and this has been done as follows:</p> <ul style="list-style-type: none"> • Siting of the proposed development footprint in the most transformed areas of the site. • Siting the proposed development as far west as possible in order to maintain a corridor to the east. • Including indigenous <u>Cape Flats Sand Fynbos</u> (CFSF) in the landscape plan for the proposed development. • Design specifications are included in the EMPr for mitigation against possible groundwater pollution (as per recommendations made by the groundwater specialists) as well as groundwater monitoring during the operational phase. • Basic Assessment process (and this report) has also undertaken and considered further specialist input as required by NCC (2021) in the form of faunal, freshwater and groundwater assessment, particularly to confirm the impact and role of the site in nutrient buffering and groundwater recharge (i.e., the support role to nearby environmentally sensitive areas) and the extent to which it provides an important faunal movement corridor. • The development footprint for the preferred alternative is deliberately restricted to the severely degraded wetland areas only (and NOT the less degraded wetland). • The design of the proposed depot in terms of stormwater and run-off control responds to wetlands on site (in terms of accommodating the necessary stormwater volumes for future development) and off-site (in terms of the water quality and quantity controls, such that stormwater would pass through the permeable paving and <u>a lined</u> pond, and clean water would be discharged in a controlled manner into the wetlands to the east of the site). |

- The stormwater management plan also provides adequate response to the loss of wetland function.
- The landscaping for the stormwater pond would also mimic appropriate wetland vegetation (noting that landscaping on the remaining portions of the site would respond to the historic natural vegetation type and would therefore comprise appropriate Cape Flats Sand Fynbos species).
- Other measures related to detail design would be those employed for containment of spills and fuel/oil leaks, which are included as design specifications in the EMPr.
- Given that there are several impacts associated with the construction phase, the EMPr contains many specifications in order to control, manage and mitigate these impacts as recommended by the freshwater ecologist (and, in fact, all specialists).
- The proposed development responds spatially to the faunal sensitivities through creation of a preferred alternative which avoids the Medium Site Ecological Importance (SEI) area and restricts the development footprint to the Low SEI areas which also coincides with the extent of the severely degraded wetlands (as delineated by Steytler & Mugabe, 2021).
- The siting of the proposed development as far west as possible, and making it as narrow as possible, also allows for a corridor to the west (and a slightly wider corridor would be available with the preferred alternative).
- The WLT and movement through the area would also be accommodated through design such as including a stormwater pond, planted to mimic wetland conditions, located in the northeast corner of the site (nearest to the remaining corridor).
- The WLT Design Guideline measures have been included in the design specifications of the EMPr.
- Construction and operational management measures are also included in the EMPr specifications to remain aware of and avoid harm to the WLT (and, in fact, all fauna, other than pests).
- During breeding season, the Applicant is required to employ a suitably trained individual during WLT migrations i.e., before and after breeding (late July-early sept) to check the project area for and move out of harm's way, and this is a specification included in the EMPr as well.
- In terms of the assessment methodology following, the faunal impact assessment was carried out over an extended period in order to establish the extent to which the WLT may make use of the site (i.e., breeding, foraging, movement).
- The precautionary principle has also been followed in terms of the assumption that the WLT may use the site as a corridor/ foraging ground and impact assessment, as well as mitigation require has been based on this assumption.

Prior to initiating the various specialist studies, and when the site was initially considered a part of the land reservation, there was some internal engagement between City of Cape Town departments (note, not part of this Basic Assessment process). There was preliminary, informal, engagement between the EAP and CapeNature, DEA&DP, and City of Cape Town Environmental Management in order to identify potential key issues at an early stage. Although not part of the Basic Assessment process, it is useful to note the key points raised during those discussions and how they have been addressed, noting that, given the early stages of the project at the time (i.e., pre-pre-application) there was limited information available to discuss and points were raised at a high level. Refer to **Table 5** for a summary of these.

Table 5 Early-Stage Issues Raised in pre-pre-application high-level engagement with key authorities and how these have been responded to (please note, this was informal engagement only and is only indicated herein to demonstrate how these early issues have been considered and addressed, the various authorities may have a differing opinion following consideration of this report and appendices)

| No. | Relevant Party | Comment/ Potential Issue | Response/ How it has been addressed |
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| 1 | CapeNature | Alternative layouts should explore the opportunities and constraints of the entire extent of the two even to design a development which minimizes negative impacts on biodiversity. | This was carried out through a baseline of the entire <u>proposed development</u> , and the site footprint located on an area that is most transformed and that would still provide for some corridor for WLT movement. |
| 2 | CapeNature | The most important constraint would be the presence of wetlands. Impacts should be avoided as far as possible. If the wetland habitat has been lost, the wetland functionality must still be maintained through the stormwater design and management system, in particular considering the large, surfaced area associated with a bus depot and the potential hydrocarbon contamination of the run-off. Wetland offsets may need to be discussed, but avoidance should be attempted as far as possible. Should a wetland offset be necessary, this should aim to create amphibian habitat, due to the presence of 1 critically endangered and 2 endangered amphibian species in the near vicinity of the site and that there is consultation with CapeNature and the City of Cape Town in this regard. | <p>A freshwater impact assessment has been conducted to determine the impact on wetlands and impacts are all considered to be low or very low negative with mitigation.</p> <p>Loss of wetlands has been avoided as far as possible through the provision of a preferred alternative that avoids the less degraded wetlands and moderate SEI faunal habitat.</p> <p>No wetland offsets have been recommended due to the heavily degraded state of wetland habitat to be lost, and the fact that the proposed stormwater management plan more than adequately accommodates the loss of function.</p> <p><u>CapeNature and City of Cape Town have provided comment on the pre-application Draft BAR and their comments have been incorporated and responded to.</u></p> |
| 3 | CapeNature | In terms of amphibians, the latest information has been presented in the faunal report in terms of their locality and City of Cape Town Biodiversity branch could provide more advice in that regard. | This is noted. City of Cape Town Biodiversity have also been notified of the availability of this report for comment. |
| | | It may be unlikely that Micro Frogs would utilize the site as they generally do not | The faunal assessment has confirmed that Micro Frogs are not likely to be found on site, but, as species of conservation concern, assessments were also completed for them which were found |

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| | | venture into transformed habitats. This species is however of highest priority for conservation of the amphibians. | to have 'Very Low' SEI which means that 'Medium to High' impacts would be considered acceptable with no need for restoration (Jackson & Martin, 2021). |
| 4 | CapeNature | The site does conceptually form part of a notional open space corridor between Kenilworth Racecourse and the Royal Cape Golf Course and Youngsfield, however the M5 and Wetton Road are major barriers, and it could be questioned the extent to which there is currently connectivity between these sites. It may be worth investigating mitigation measures to encourage movement across these barriers while minimizing road mortalities, which is a major threat to Western Leopard Toads. It would be useful to first establish the level of road mortality in the vicinity of the Royal Cape Golf Course. | The ecological value of the potential notional corridor has been assessed through this assessment, both from a habitat/support/buffering role as well as for faunal movement. Although WLT guidelines would be included in the proposed development design, this is limited to the scope and not off-site infrastructure or facilities. |
| 5 | City of Cape Town: Environmental Branch | Note agreement with heavily transformed nature of the site. | No response needed to this. |
| 6 | City of Cape Town: Environmental Branch | As the Freshwater specialist has identified, an EMPr would have to be compiled to avoid the less degraded areas of the site. The management and mitigation measures will play a key role to the success of the development. | The preferred alternative would only encroach into the severely degraded wetland. Mitigation measures are included in the EMPr, and it should be noted that there are strict no-go areas to be adhered to (refer to Figure gg). |
| 7 | City of Cape Town: Environmental Branch | If there is uncertainty regarding the presence of the Western Leopard Toad, I would suggest that you engage with the Western Leopard Toad Committee to see whether they have any data for the area. There is an active group in the Royal Cape surrounds that monitor the WLT during breeding season which is currently taking place and sightings are normally recorded on INaturalist. | The uncertainty in this regard has been resolved in the faunal impact assessment, noting that there was no evidence of WLT breeding on site, or being present on site during the faunal impact assessment site visit, but the precautionary principal has been applied and the impact assessment and mitigation in this regard assumes that the WLT uses the site as a movement and foraging corridor to get to the surrounding breeding areas. |
| 8 | City of Cape Town: Environmental Branch | This development will likely trigger a Listed Activity and will have to undergo a BA which would give our department to formally comment on this application | This is noted and application for Environmental Authorisation will be made. |
| 9 | City of Cape Town: Environmental Branch (as per their comment on the land reservation) | Further to an environmental authorisation, a Water Use License will also likely be required. | Application for a Water Use License will be made, DWS has confirmed that it is necessary. <u>The proposed development has since been authorised by the Department of Water and Sanitation (DWS) through the approval of a Section 21c and Section 21i Water Use License (01/G22D/CI/12144) (please refer to Appendix E3).</u> |
| 10 | City of Cape Town: Environmental Branch (as per their comment on the land reservation) | In terms of the City of Cape Town BIONET, the site is categorised as an OESA which is open space needed for the long-term functioning of neighbouring ecosystems. Ideally these areas would be restored to natural or near-natural state to improve ecological functioning. A BIONET forms part of the Bioregional Plan, contained in the MSDP, a land use application may be required to deviate from this: <ul style="list-style-type: none"> • A botanical assessment to comment on whether it is acceptable to deviate from the BIONET or not; • A study undertaken by an amphibian specialist to assess the impacts on the endangered WLT and other amphibians. | The response of the proposed development to the WCBSP and City of Cape Town BIONET is included in this report, along with a botanical impact assessment and faunal impact assessment (which addresses impacts on the WLT and other amphibians). |
| 11 | DEA&DP | Traffic impacts must be investigated. | A transport impact assessment has been done and findings incorporated into this report and the proposed development. |

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| 12 | DEA&DP | An explanation as to why no alternative site can be used must be provided. | A detailed explanation on the site selection process has been included in the Alternatives section of this report and a site selection report has been appended to this report. |
| 13 | DEA&DP | Impact on wetlands and potential need for wetland offsets must be investigated before an application is submitted. | Attempts have been made to engage DWS, with a pre-application meeting held. So far, only confirmation that a WULA is required, as well as that the proposal triggers section 21 (c) and (i) of the NWA, has been provided, but DWS must comment on this report. |
| 14 | DEA&DP | A joint pre-application meeting with DEA&DP and DWS must be held. | This was done. |
| 15 | DEA&DP | It is important to clarify how the proposed development would respond to Bonnytown. | The project description is clear in that the proposal would not encroach into Bonnytown and that a realigned formalised access road to Bonnytown would be provided and the area would be fenced. |
| 16 | DEA&DP | The application of the mitigation hierarchy must be explained. | That has been done in this report. |

Pre-App Draft BAR PPP:

Various authorities related to biodiversity (i.e., DEA&DP: Biodiversity, City of Cape Town: Environmental Management, City of Cape Town: Biodiversity, and CapeNature) were also notified of the availability of the pre-application Draft BAR (as well as all specialist reports) for comment.

CapeNature agrees with the specialist findings in that the site is degraded in terms of vegetation and freshwater. They are however of the opinion that the development will result in loss of wetland habitat and function that will not be fully mitigated through stormwater management alone and as such a wetland offset should be calculated developed that includes the rehabilitation of the remaining wetland area. The preferred layout alternative (avoiding less degraded wetland area) is supported, provided that a wetland offset is provided. It is noted that CapeNature's comment is in contrast to the freshwater specialist's findings (refer to **Appendix E2** for the original comment).

The City of Cape Town: Environmental Management supports Alternative 2 as the preferred layout as it will not affect the less degraded wetland and it will have a larger corridor for faunal movement. They also recommended that a wetland offset be considered as an opportunity to link neighbouring environmental systems and enhance the environmental corridor (refer to **Appendix E15** for the original comment).

Responses to each comment is included in the Comments & Response Table attached in Appendix F.

No comment was received from DEA&DP: Biodiversity.

Furthermore, with regard to the Western Leopard Toad, a species of conservation concern found nearby the site, a number of groups are involved in its conservation namely the Western Leopard Toad Conservation Committee (WLTC) comprising of representatives from SANBI, Cape Nature, SANParks and City of Cape Town as well as NGOs including Endangered Wildlife Trust, WWF, Table Mountain Fund and CTEET and volunteer groups such as the local conservation group the ToadNUTS (CapeNature, 2013; Measey *et al.*, 2014, Noordhoek Community Hub, 2020, in Jackson & Martin, 2021). These groups have been included in the I&AP database by the EAP and were notified of the draft BAR for public comment and review. However, no comments were received.

All biodiversity authorities/groups have again been notified of the availability of the post-application draft BAR for comment and any comments received will be incorporated into the Final BAR.

Post-App Draft BAR PPP: The first iteration of the Post Application DBAR.

The Post Application Draft BAR and Application for the proposed development was submitted on 22 May 2023. On 10th July 2023, a meeting was held with DEA&DP: Development Management and Pollutions and Chemicals, where the applicant, City of Cape Town, via Chand Consultants, were requested to withdraw the application for Environmental Authorisation pending further testing required regarding the Part 8 Land Contamination from the DEA&DP. It was assumed that the Part 8 process would continue separate to this environmental application. The applicant was requested to submit a new application once the results for soil, groundwater and freshwater had been assessed, reviewed and commented on by the DEA&DP: Pollutions and Chemicals Management. These results can be found under **Appendix P**.

Proof of public participation, I&AP registrations, Stakeholder and Authority engagements, as well as comments and responses from the first iteration of the Draft BAR have been recorded under **Appendix F: Post Application PPP 1**.

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

In terms of the Western Cape Biodiversity Spatial Plan (WCBSP), the site is in an area earmarked as an Ecological Support Area (ESA) 2 which is marked to "restore where appropriate".

On the 2017 City of Cape Town Biodiversity Network (BioNet) the area is listed as an OESA (Other Ecological Support Area, Buffer 2) (NCC, 2021). This listing is ascribed to transformed sites of conservation significance. These listed sites are described according to the SANBI BGIS as, 'an open space transformed by agriculture or other activities, essential for protected sites (NCC, 2021). The significance of this site is that of 'local significance' in that it is required for long-term ecological functioning of natural ecosystems

and the OESA significance is listed as, 'Animal Movement' (likely amphibian) (NCC, 2021). Loss would result in degradation of ecological processes & potential loss of biodiversity elements (NCC, 2021).

The prescribed objective according to the City of Cape Town's 'BioNet' is to maintain the area as open space & where appropriate restore degraded land to natural or near natural for improved ecological functioning (NCC, 2021). The action needed is recorded as, 'to ensure agricultural activity is compatible with ecosystem processes (NCC, 2021)'. Where possible, acquire, rezone & rehabilitate. High priority, but low urgency (15-year horizon). The long-term vision for these types of listed areas is to restore natural ecosystem structure to some of the area to improve ecological processes' (refer to **Figure g**). The area is listed as not being ground-truthed, nor is it managed or proclaimed (in terms of a reserve/protected area) (NCC, 2021). Likewise, it does not appear that, apart from invasive alien plant clearing, any kind of ecological beneficial rehabilitation is occurring or likely to occur (NCC, 2021).

Of significance is the listing name as, 'Irreversibly modified', and the 'buffer' and 'support' labels (NCC, 2021). Accordingly, any perceived conservation value of the site (as a whole) is not seen to be in the site itself as a conservation area but rather in what, if anything, it does for the neighbouring sensitive ecosystems (NCC, 2021). It must be born in mind that, 'The fact that a Critical Biodiversity Area (CBA) or ESA is disturbed or degraded would not necessarily justify land-use change at that site' (NCC, 2021). 'There may be situations in which degraded areas have been identified as CBAs because they contribute to biodiversity pattern targets or fulfil an essential ecological function, such as forming part of an ecological corridor or a 'steppingstone' habitat (for example, cultivated areas may have been selected for their connectivity value)' (De Villiers et al 2016 in NCC, 2021). The particular role that this site plays in relation to other sites of importance (any buffer function as ascribed to it by the CBA status) is likely to be in regard to some groundwater recharge (Naicker & Muller, 2020) but primarily, and if anything, animal corridor movement, something that is possible even in degraded vegetation (NCC, 2021).

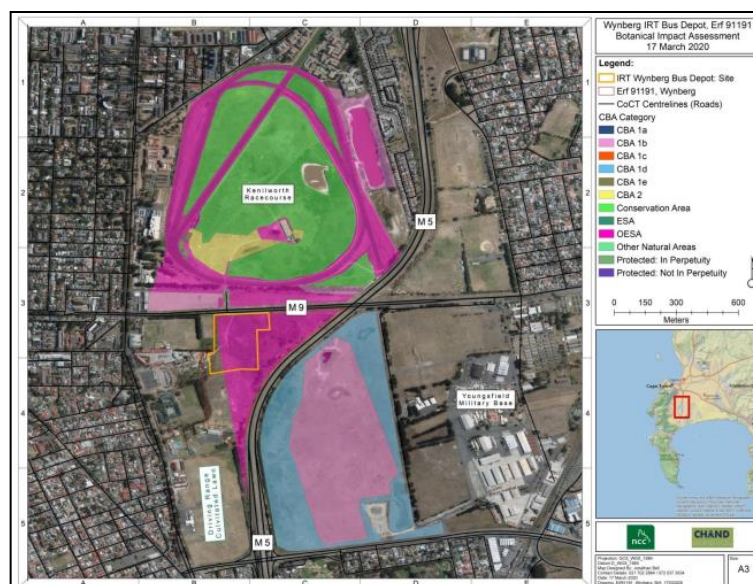


Figure g: City of Cape Town Biodiversity Network, 2018 (source: NCC, 2021)

The Basic Assessment process has responded to the sensitivities mapped on the site through conducting independent specialist assessment by a botanist, zoologist (i.e., faunal specialist) and freshwater ecologist in order to ascertain the baseline conditions, impacts and mitigation measures. Furthermore, and partly in order to provide a deeper understanding of the off-site impacts for the botanical impact assessment, a groundwater assessment was also conducted.

The proposed development is not aligned with the aim of retention as open space and long-term rehabilitation; however this has been based on a site that was not ground-truthed (NCC, 2021). A site-level assessment has confirmed that the site is completely (+/- 99%) covered with exotic grass and invasive alien plants (IAP's) (NCC, 2021). There is almost no indigenous species present (let alone cover) thus no species of conservation concern and being a non-ecologically managed open space within an urban environment there is no natural fire regime (NCC, 2021). The reports of Brown & Engelsman, O'Brien & Engelsman and GEOSS all confirm the highly altered soil and water profiles; a result of dumped litter layers of up to 3m thick with subsequent drainage effects (NCC, 2021). As soil and water are the growth substrate, and therefore highly sensitive factors for the survival CFSF, this renders the site irreversibly modified and completely unsuitable for CFSF to persist (NCC, 2021). Therefore, the proposed development does not contradict the overall "restore where appropriate" goals of an ESA 2, given that restoration of the site would not be appropriate.

In a follow-up inspection conducted by NCC (2024) in February 2024, it was further confirmed that there is no Cape Flats Sand Fynbos as a vegetation type left on the proposed development footprint. NCC (2024) states that it has been removed through consistent negative impacts and lack of positive drivers. It is highlighted that the entire site is overrun with exotic alien grasses and weeds and nothing which could be described as an indigenous terrestrial vegetation type is present (NCC, 2024). Along with the lack of indigenous vegetation as a 'type', no red data listed species were found on the development footprint, or are expected to occur, based on the current and past state of the site (NCC, 2024). The proposed site has no terrestrial plant SCC recorded on online databases (NCC, 2024).

NCC (2024) concludes that due to the irreversibly transformed and highly degraded habitat along with the existing negative influences (e.g. dumping, trampling, fragmentation, weeds) and lack of positive appropriate vegetation drivers (e.g. fire, faunal corridors) as well as the noted absence of any SCC or likelihood of their reoccurrence, the study area is confirmed to be of a 'Low Sensitivity' for terrestrial plant species.

Jackson & Martin (2021) assessed the impacts of the proposed development on the functioning of the site and surrounds as a faunal corridor as well as the impacts on fauna associated with the site. The precautionary principal is applied, and it has been found that the Western Leopard Toad (WLT) may use the site and adjacent area to access non-breeding sites (or for foraging grounds) as individuals have been found north of the project area while the breeding site is south of the project area (Jackson & Martin, 2021). Note also that this is the only terrestrial vertebrate Species of Conservation Concern (SCC), that may be impacted by the proposed development. The impact is assessed as moderate (-)/ Medium (-) with mitigation (Jackson & Martin, 2021). This aligns with impacts considered acceptable in terms of the SEI ascribed to this SCC through the faunal impact assessment. It is important to note that the proposed development would only remove a portion of the corridor leaving a width of 65m at its narrowest point in the south and 325m at its widest on Wetton Road (Jackson & Martin, 2021). Disturbance to faunal species during operation is also assessed by the faunal specialist and the impacts are found to be Low (-) with mitigation, noting that the degraded area offers little ecological function, and the less degraded area maintains some functionality albeit very low (Jackson & Martin, 2021). It may function as a corridor but if the portion of degraded wetland were to be lost, this would have little impact on the function of the corridor (Jackson & Martin, 2021). In terms of impacts on fauna, four faunal groupings were looked at by a faunal specialist; amphibians, reptiles, mammals, and avifauna. Overall, an SEI of Medium is applied to the WLT on site and for this rating, medium impacts for development are acceptable provided that restoration occurs (Jackson & Martin, 2021). 'Low to Medium' SEI considers 'Medium' impacts acceptable for development activities provided that restoration activities are implemented (Jackson & Martin, 2021). Although not likely to be found on site, as species of conservation concern, assessments were also completed for the Cape Platanna, Micro Frog, and Black Harrier, all of which were found to have 'Very Low' SEI which means that 'Medium to High' impacts would be considered acceptable with no need for restoration (Jackson & Martin, 2021). The impacts are found to be acceptable in terms of the SEI rating of the site, even when one considers the SCC SEI of the WLT (which is ranked as Medium), which is that 'Medium' to 'High' impacts are acceptable but with minimisation and restoration mitigation (Jackson & Martin, 2021) (noting that most impacts are found to be low (-) with mitigation, but there is one medium (-) impact within mitigation (which refers to the impact of development of the proposed depot on "Reduced *S. pantherina* foraging ground/corridor") for both development alternatives (Jackson & Martin, 2021). Other impacts are associated with low (-) significance (with mitigation).

With regard to freshwater features on or near the site, there is a depression wetland identified on site and on the greater property within which the site sits. Whereas the entire study area is highly impacted and transformed, distinction is drawn between more sensitive (less degraded) and less sensitive (degraded) portions on the basis of remnant natural habitat and degree of soil disturbance (i.e., dumped waste and infilling) (Steytler & Mugabe, 2021). These two markedly differing portions of the wetland have been categorised as 'less degraded' and 'degraded' (Steytler & Mugabe, 2021). The development footprint for the preferred alternative for the proposed bus depot has been devised to remain solely within the "less degraded" wetland identified by Steytler & Mugabe (2021). The degraded wetland (which is where the limits of the preferred alternative would be located) provides moderately low WET-Ecosystem services, has a category E PES and low/marginal EIS. The less degraded wetland (which is not within the limits of the preferred alternative development footprint but lies adjacent to the east) provides moderately low WET-Ecosystem services, has a category D PES and moderate EIS. Freshwater impacts were all found to be low to very low negative for the proposed development with the implementation of mitigation measures (Steytler & Mugabe, 2021). There is also a medium (+) impact of the operational phase for improvements to water quality.

Refer to **Section E5** above for the way the proposed development and Basic Assessment process has responded to the specialist assessments.

Therefore, overall, Alternative 2 does not immediately appear to align with the biodiversity/conservation objectives of the WCBSP or City of Cape Town Bioregional Plan, however, the true conservation value of the site is revealed through more detailed baseline and impact assessment, which provides specialist conclusions in this regard. The proposed development is aligned with specialist recommendations and the key adverse impacts anticipated are confirmed by specialists to be able to be mitigated to acceptable levels to preserve, where possible, the biodiversity resources on site. One key impact in this regard is that on the potential movement of the WLT through the site, which is Medium (-), with mitigation, but given that the SCC SEI of the WLT being at Medium, Medium' to 'High' impacts are acceptable but with minimisation and restoration mitigation (Jackson & Martin, 2021).

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| 7. | Explain how the proposed development is in line with the intention/purpose of the relevant zones as defined in the ICMA. |
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Not applicable, given that the proposed development is not in a coastal area.

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| 8. | Explain whether the screening report has changed from the one submitted together with the application form. The screening report must be attached as Appendix I. |
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The screening tool reports appended to this report include the 2021 STR (the same as the one from the NOI) as well as an updated STR generated in 2024. Both STRs were included within the Application Form submission.

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| 9. | Explain how the proposed development will optimise vacant land available within an urban area. |
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The site is vacant, although it has been used as an illegal dumping area for many years. The site is also located within the urban area of Wynberg and adjacent to other municipal services facilities (like sports facilities, fire, services, waste, etc.). The land is owned by the City of Cape Town and a land reservation has been approved for the proposed development on site. The proposed development would also be located within an important node which would service the MyCiTi/ future MyCiTi bus network. Given the excessive and long-term dumping on the site and the degraded ecological state, the site is not a pristine greenfield site and has been transformed significantly (particularly as a result of the illegal dumping).

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| 10. | Explain how the proposed development will optimise the use of existing resources and infrastructure. |
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The proposed development would be located on a vacant site, owned by the City of Cape Town, within an urban area, located adjacent to other municipal infrastructure and facilities. It would make use of existing services for water, electricity, and sanitation, as well as stormwater within the urban area. It would also be optimally located within the MyCiTi network to limit dead mileage and support the greater MyCiTi network (current and future).

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| 11. | Explain whether the necessary services are available and whether the local authority has confirmed sufficient, spare, unallocated service capacity. (Confirmation of all services must be included in Appendix E16). |
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Service capacity for the proposed development has been confirmed by the City of Cape Town for water, sanitation, and electricity. The City of Cape Town waste management branch has been afforded an opportunity to comment on this report and will provide comment, however, a private waste contractor may also be used by the operator of the proposed depot.

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| Refer to Appendix E16 for the capacity letters (which have been updated since the pre-application phase). | |
| 12. | <p>In addition to the above, explain the need and desirability of the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013) or the DEA's Integrated Environmental Management Guideline on Need and Desirability. This may be attached to this BAR as Appendix K.</p> <p>Urban edge / edge of built environment for the area.</p> <p>The entire site falls well within the urban edge.</p> <p>Is the proposal aligned with the existing SDF and associated timeframes and is the proposed development in line with the projects and programmes identified as priorities within the credible IDP?</p> <p>The site is situated within an Incremental Growth and Consolidation Area, but on the boundary of the Urban Inner Core (refer to Figure e). According to the MSDF, the city is committed to servicing existing communities in Incremental Growth and Consolidation Areas, while spatially targeting investment and development in the Urban Inner Core to spatially transform and integrate city form.</p> <p>Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occur on the proposed site at this point in time?</p> <p>The selection of the location of the proposed site has been driven by the Systems Planning team of the City of Cape Town and has been earmarked as suitable for servicing the Western Region through the implementation of the IRT network in the area (City of Cape Town: Transport Directorate, 2020).</p> <p>Four sites were considered, but three scoped out to provide for the proposed site, given that it provides the best fit in terms of the following needs for depot site selection (Appendix A of City of Cape Town: Transport Directorate, 2020):</p> <ul style="list-style-type: none"> • Location in terms of proximity of the site in relation to the dead mileage convergence zone; • Existing use of site in terms of preference for vacant or unused sites; • Size of site in terms of being appropriate to accommodate the needs/ requirements of a depot; and • Ownership in terms of the land being owned by the City or in public ownership. <p>Furthermore, the assessment of each site was subjected to the alignment with the following criteria (Appendix A of City of Cape Town: Transport Directorate, 2020):</p> <ul style="list-style-type: none"> • Technical/ operational alignment (i.e., suitability of a site to function as a depot and/or staging area); • Legislative alignment (i.e., alignment with policy and procedural planning such as spatial planning frameworks, heritage status and approvals needed, Environmental status and approvals needed, and other potential end-uses as earmarked by the City of Cape Town); and • Contextual fit (spatial considerations such as uses around the site, extent to which it may be embedded in the urban fabric, potential for sharing or clustering of other public facilities, and best use that does not contradict other high-priority needs). <p>The proposed site was found, through the above contextual analysis, to be the most appropriate site in terms of its location in the western segment of the route and the intended bus stops to be associated with this, as well as the size, existing use and owner ship needed for the City of Cape Town to develop a bus depot thereon (Appendix A of City of Cape Town: Transport Directorate, 2020).</p> <p>In terms of the operational alignment, the site is well located in terms of its proximity to an existing public transport network and thus avoiding dead mileage given that it is located adjacent to existing bus services (i.e., Golden Arrow Bus Service), as well as being located 1.5km and 3km away from planned future MyCiti high-performing stations. It is deemed acceptable in terms of providing security for the site in that it can be setback from Rosmead avenue as well as set back from Wetton Road, with double perimeter fencing all around. The surrounding road network can also accommodate the depot in terms of access (noting that the initial high-level site selection considered access off of Rosmead Avenue given that there was sufficient road reserve for future duelling, however following some design of the site layout, the proposed access to the facility would be located off Wetton Road, and this has been confirmed as acceptable in the TIA in Appendix G(e)) as well as the road geometry of the existing surrounding road network for use by MyCiti Buses. The potential downfall of the site in terms of operational/ technical requirements was the obstacles to providing for an emergency access road, however the proposed depot layout has addressed this matter through proposing an emergency exit through the Municipal solid waste facility. The size of the site to accommodate the necessary function of a depot is also found to be acceptable and the general readiness of the site to be developed as a depot was also considered acceptable, noting that issues such as the wetlands on site and access would need to be resolved. A positive aspect in this regard is that the gradient of the site was acceptable. Note also that geotechnical assessment has confirmed the state of founding conditions to be acceptable with removal of some of the waste historically dumped, compaction and infilling (Brown & Engelsman, 2020), noting that some settling may still occur.</p> <p>Overall alignment with spatial and biodiversity planning noted that, at the time (which is when the District Plans were still in use) the site is located in a metro wide ecological corridor and that there is biodiversity status and mixed-use infill on the edges. The zoning was also noted, and it was indicated that rezoning would be needed for the components zoned as POS, but that the other portions of the erf zoned as Community 1: Utility would be aligned with the proposed depot. These two aspects were considered acceptable, but it should be noted that they must be resolved through this Basic Assessment process, as well as a separate land use application process. The biodiversity of the site and potential impacts are assessed through this process and detailed throughout this report. The site was also considered to hold no heritage sensitivity (which has been confirmed through a NID and HWC response- refer to Appendix G(i)) and the environmental status was indicated as being a Core 1: maintain natural ecosystem and that the wetlands on site would need to be ground-truthed and an EIA process would be needed. As mentioned, this Basic Assessment process unpacks these issues and overall, there are a combination of positive and negative impacts anticipated, but they can be mitigated to acceptable limits. The site was also found to be appropriate in that it was not reserved by any other City of Cape Town departments for any other use and is now reserved for the proposed bus depot (refer to Appendix Q).</p> <p>The contextual alignment of the site was ranked as "good" for all aspects considered which included the best use of the site in terms of reinforcing an established utility node and compatible with the neighbouring solid waste facility and Golden</p> |

Arrow facility, as well as being located near an existing cluster of utility services (i.e. comprising the Golden Arrow staging facility, fire station, and solid waste facility) and that it would not have a visual impact on existing residential areas along Rosmead Avenue. It was also found that the proposed depot could be embedded appropriately in the existing urban fabric given that there would be limited intrusion from the Rosmead Avenue Street edge as it would be behind existing development along Rosmead Avenue and noting that it could be clustered with existing public uses near or adjacent to the site). It was also noted that there are no sensitive residential areas or economic centres nearby, but it should be noted that this study did not mention the Bonnytoun informal settlement adjacent to the site. In this regard, it should be noted that the proposed site limits have been informed by a site visit and survey and have been intentionally devised to avoid any dwellings in the settlement. Therefore, the proposed depot would be adjacent to the Bonnytoun informal settlement and would not be within it.

Refer to the Site Alternatives section (**Section H**) for more detail in this regard.

Further additional aspects of the proposed depot that would be directly beneficial to the neighbouring Bonnytoun informal settlement include the realignment of the access road and the formalisation thereof (to provide for a tarred road, rather than the current gravel road, which would be subject to less erosion than the current road). The proposed depot fencing would partially enclose the settlement and serve to reduce vagrants entering the settlement (who are not part of the Bonnytoun community). The lighting applied to the proposed depot would also provide additional security to the Bonnytoun community.

Overall, Construction phase impacts would mostly be short-term, with the exception of the transformation of the site (which involves clearing vegetation, wetland habitat, faunal habitat, and removal of some faunal movement corridor) which would hold permanent impacts. Construction phase impacts for changes to the surface drainage regime would be neutral. The positive impacts during this phase largely relate to the socio-economic impact of job creation and site safety and security (which are both rated as medium (+)). Very low (-) impacts are anticipated to be associated with typical construction-related aspects such as noise, dust, visual (aesthetics), and use of natural resources. Traffic impacts would also be low (-). Similarly, freshwater impacts are anticipated to be low (-) or very low (-) during construction, with the exception of a single Medium (+) impact for potential improvements in water quality. There would be no botanical impact, given the transformed nature of the site and faunal and groundwater impacts would be low (-), with the exception of the faunal aspect in terms of a reduced corridor for the WLT, which is ranked as medium (-), noting that this is acceptable in terms of the confirmed SEI of the site (as assessed by Jackson & Martin, 2021).

No impacts are anticipated with regard to heritage, noise, agricultural production.

Operational impacts are anticipated to be Medium (+) in terms socio-economic aspects such as employment opportunity and improved accessibility with high (+) impacts to improvements in safety and security of the site. There are also positive potential impacts associated with the reduction in greenhouse gas emissions. There would also be one low (+) botanical impact regarding a reduction in pollution leachate. Traffic impacts are anticipated to be low (-) with limited difference in current congestion experienced. Negative impacts are also anticipated as a result of the proposed development. There would be low (-) impacts associated with resource use and the impacts associated with freshwater and faunal aspects would be low (-) or very low (-) with no negative. Impacts on groundwater are anticipated to be low (-) to Medium (-) and MHI risk is very low (-).

The most significant adverse impacts relate to the reduction in a corridor for the WLT (Medium -) and the potential for groundwater contamination (Low to Medium -), however specialist assessment has confirmed that these can be mitigated to acceptable limits.

The consolidation area in the MSDF are areas where "the City is committed to servicing existing communities and where new development will be subject to infrastructure capacity" (MSDF, 2018) and the proposed Wynberg Depot would serve to support the provision of public transport infrastructure to existing communities and would not put a strain on existing infrastructure (as confirmed by the TIA in terms of access and surrounding road infrastructure as well as the confirmation of service capacity letters included in **Appendix E16**).

There is also future planning in the area to consider. The City of Cape Town is planning a "Wynberg Sports Facility Precinct". The broader Wynberg Sports Precinct has been identified as a 'Regional Recreational Hub', currently being led by The City of Cape Town's Community Services and Health Directorate (CSHIP). **Figure h** shows their recommended development scenario, which recommends consolidating the recreational land uses and introducing various housing, mixed use, and development opportunities, as well as the MyCiTi bus depot, which will service this multi-use precinct upgrade.

Maximised site scenario 3

- Redevelop entire Wynberg
- Sports Club for mixed use
- New dev at Bus depot
- GABS moves to Myciti depot
- Infill on William Herbert
- Infill on Ottery Road
- Remove Golf links and develop Wynberg cricket pitches here.
- New Athletics track



Figure h. Wynberg Sports Precinct Draft (source: City of Cape Town Transport Directorate, 2020)

Does the community/area need the project and the associated land use concerned (is it a societal priority)?

The affected local communities have historically been excluded from the Cape Town urban centres which makes it challenging for the inhabitants to travel to and from their places of work and education on a daily basis. It is an important provincial and national priority to provide improved accessibility to these areas. Furthermore, the commercial and industrial activities in the area would benefit from improved accessibility.

The proposed development would provide the City of Cape Town with an opportunity to intensify the western portion of the Metro, providing improved connections and accessibility to the area as well as safe public transport for the future MyCiti routes. Opportunities would also extend to communities beyond the immediate context of Wynberg, given that the proposed development would support access throughout the future MyCiti route/ network which extends, just a few kilometres to the east, to previously disadvantaged communities who have been historically subjected to apartheid spatial planning. These opportunities are as follows:

- Develop vibrant areas by removing barriers to access;
- Improve connectivity throughout the Metropolitan areas;
- Increase efficiency of people's movement and as an aid to the movement of commuters and development activities.
- Improve access and transportation routes to encourage future development and intensification of use;
- Decrease walking distances from residential and places of work to public transport facilities;
- Reinforce convergence on core routes and access points; and
- Reinforce the use of the existing bus stops as well as future bus stops.

Are the necessary **services** available together with adequate unallocated municipal capacity (at the time of application), or must additional capacity be created to cater for the project?

Service capacity for the proposed development has been confirmed by the City of Cape Town for water, sanitation, and electricity. The City of Cape Town Waste Management branch has been afforded an opportunity to comment on this report and will provide comment, however, a private waste contractor may also be used by the operator of the proposed depot. Refer to **Appendix E16** for the capacity letters (which have been updated since the pre-application phase).

Is this project provided for in the **infrastructure planning** of the municipality and if not, what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (

The proposed depot is not indicated in the MSDP (2023) at a site level, however the development of the depot would serve to support the future MyCiti network indicated in the consolidated spatial plan as well as being located near a sub metropolitan node (which demonstrates that this node would be serviced), given that it would be located nearby these spatially designated areas (refer to **Figure e** Error! Reference source not found.).

The site and proposed development is also located along a corridor, between the Wynberg CBD and the Philippi Metro Central node (refer to Figure i).

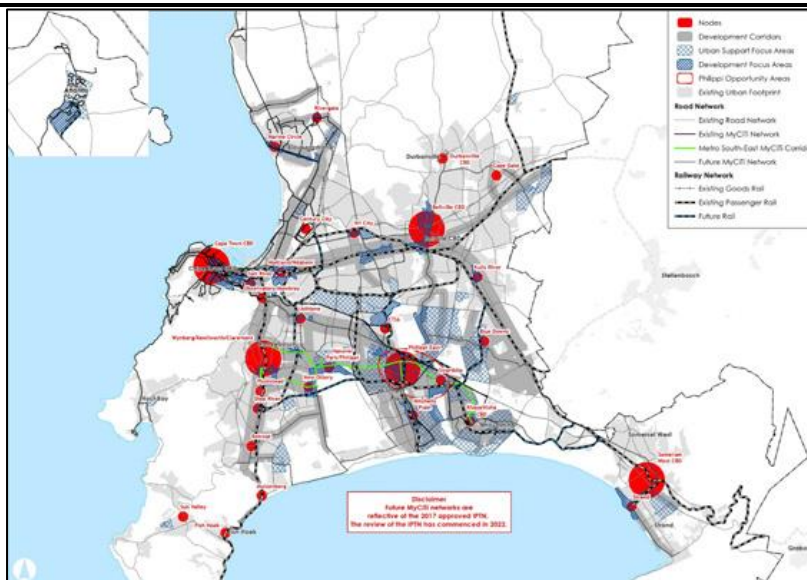


Figure i Nodes and Corridors relative to site location (extracted from the CTMSDF, 2023)

Therefore, the proposed development would support, and contribute to, local infrastructure in terms of provision of public transport to, and between, existing communities.

Is this project part of a **national programme** to address an issue of national concern or importance?

One of the goals of the NDP under the improvement of infrastructure is to roll out a public transport system in order to better link rural and urban nodes and provide people with better, quicker, safer access to their places of work and education.

Do location factors favour this land use (associated with the development proposal and associated listed activity(ies) applied for) at this place? (This relates to the contextualisation of the proposed land use on the proposed site within its broader context.)

Refer to the response to "Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occur on the proposed site at this point in time?" above, noting that the site is broadly appropriately located in terms of its context.

Will the development proposal or the land use associated with the development proposal applied for, impact on sensitive natural and cultural areas (built and rural/natural environment)?

There are no cultural sensitivities related to the site. This has been confirmed in the NID submitted to HWC and the response thereon provided HWC (refer to **Appendix E1**).

In terms impacts on the natural environment, there would be a combination of positive and negative impacts from a freshwater, botanical, and faunal perspective. Most negative impacts in this regard are anticipated to be low or very low, with the exception of the faunal aspect in terms of a reduced corridor for the WLT, which is ranked as Medium (-), noting that this is acceptable in terms of the confirmed SEI of the site (as assessed by Jackson & Martin, 2021). Positive impacts in this regard are limited to two impacts, namely a single Medium (+) freshwater impact for potential improvements in water quality and a low (+) botanical impact regarding a reduction in pollution leachate.

Overall, Construction phase impacts would mostly be short-term, with the exception of the transformation of the site (which involved clearing vegetation, wetland habitat, faunal habitat, and removal of some faunal movement corridor) which would hold permanent impacts. Construction phase impacts for changes to the surface drainage regime would be neutral. The positive impacts during this phase largely relate to the socio-economic impact of job creation and site safety and security (which are both rated as medium (+)). Very low (-) impacts are anticipated to be associated with typical construction-related aspects such as noise, dust, visual (aesthetics), and use of natural resources. Traffic impacts would also be low (-). Similarly, freshwater impacts are anticipated to be low (-) or very low (-) during construction, with the exception of a single Medium (+) impact for potential improvements in water quality. There would be no botanical impact, given the transformed nature of the site and faunal and groundwater impacts would be low (-), with the exception of the faunal aspect in terms of a reduced corridor for the WLT, which is ranked as medium (-), noting that this is acceptable in terms of the confirmed SEI of the site (as assessed by Jackson & Martin, 2021).

No impacts are anticipated with regard to heritage, noise, agricultural production.

Operational impacts are anticipated to be Medium (+) in terms socio-economic aspects such as employment opportunity and improved accessibility with high (+) impacts to improvements in safety and security of the site. There are also positive potential impacts associated with the reduction in greenhouse gas emissions. There would also be one low (+) botanical impact regarding a reduction in pollution leachate. Traffic impacts are anticipated to be low (-) with limited difference in current congestion experienced. Negative impacts are also anticipated as a result of the proposed development. There would be low (-) impacts associated with resource use and the impacts associated with freshwater and faunal aspects would be low (-) or very low (-) with no negative. Impacts on groundwater are anticipated to be low (-) to Medium (-) and MHI risk is very low (-).

Will the proposed development or the land use associated with the proposed development applied for, result in unacceptable opportunity costs?

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| | <p>There is no opportunity cost for the site as from a botanical perspective, the extent of the efforts required to attempt restoration, bearing in mind that it may not even be successful, along with the long-term management costs, do not appear to be feasible (NCC, 2021).</p> <p>The site is also not reserved for any other uses in terms of the City of Cape Town site reservation protocol (refer to Appendix Q).</p> <p>The site as it stands at present, also has extensive historic and present-day dumping on it and so seems to contain a lot of waste.</p> |
| | <p>What will the cumulative impacts (positive and negative) of the proposed land use associated with the development proposal and associated listed activity(ies) applied for, be?</p> |
| | <p>From a botanical perspective, the primary cumulative impact is low (negative) for impacts related to clearing of vegetation and none for the supporting function of the site. Cumulative impacts for potential adverse impacts to hydrology and pollution from spills in medium (-).</p> <p>In terms of freshwater cumulative impacts, the proposed development would contribute to the further loss of depression wetland habitat, which is a potentially significant contribution, however, the degraded portion of the depression wetland is severely degraded with a PES of E (Steytler & Mugabe, 2021). Given that the wetland habitat lost as a result of the development is mostly or wholly located within this portion, the contribution of this loss of wetland habitat towards the significant historical cumulative impact is regarded as limited (Steytler & Mugabe, 2021). The cumulative effect of wetland function loss within a catchment associated with urban expansion can also be significant and contribute to increased peak flows which in-turn increase erosion and sediment loading. Also, loss of nutrient assimilation function would lead to increased eutrophication of the system (Steytler & Mugabe, 2021). Given that wetland function would be catered for as a result of the Stormwater Management Plan that is based on SUDS principles and compliant with the CCT Management of Urban Stormwater Impacts Policy (2009) the proposed development is expected to have a negligible effect on what is arguably a highly significant, catchment-wide, cumulative impact (Steytler & Mugabe, 2021).</p> <p>There are no known faunal cumulative impacts (Jackson & Martin, 2021) and no cumulative risk (in terms of MHI) impacts given that risk is limited to a small area within site limits (Thackwray, 2021). Cumulative noise impacts would also be low, given that the proposed development is of a relatively small scale with no sensitive receptors (as confirmed in Jongens, 2021) nearby. The buses would spend most of their time parked at the depot.</p> <p>For groundwater, cumulative impacts, these are anticipated to be low (-) to medium (-) for all impacts, noting that reduction in recharge is deemed to be negligible in relation to the primary aquifer as a whole (Naicker & Muller, 2021). The cumulative impacts in terms of stormwater/ surface drainage regime would be neutral with the implementation of the stormwater management plan.</p> <p>In general, socio-economic impacts related to the generation of economic stimulus would be medium (+), improved accessibility would be Medium (+), and impacts to public safety and security on site would be High (+). Cumulative impacts on traffic would be low (-) and there would be a general reduction in greenhouse gas emissions with the use of the new buses (noting that the City of Cape Town is investigating the use of electric busses for the future) of Medium (+). Cumulative impacts on resource use would be very low (-) given availability of services in the area.</p> <p>Cumulative impacts for the construction phase would range from neutral, to low (-) and very low (-) for the construction phase, with mitigation, noting that there would be positive socio-economic impacts associated with job creation and increased safety and security on the site (both of these would be Medium (+)). These are all anticipated to be short-term.</p> |
| | <p>Is the development the best practicable environmental option for this land/site?</p> |
| | <p>Although rehabilitation and continued existence as Public Open Space may be desirable from a conservation perspective, the spatial planning goal for the site in terms of restoration where appropriate, as well as the potential value in the site for its buffering capability has been indicated to be unlikely to be successful and not providing any such value or function respectively (NCC, 2021).</p> <p>Overall, the site would be located nearby other utilities and public amenities and, from a transport and connectivity perspective, would be along a corridor between two nodes (refer to Figure i). It is also acceptable from a transport perspective and the access and layout would be acceptable in this regard, noting also that the site would not encroach into the existing Bonnytoun informal settlement. It is also an appropriate fit for future planning of the Wynberg Sports Precinct.</p> <p>The site in its current state is not being looked after and is also considered unsafe (with evidence of illegal dumping, as well as criminal activity on site). The proposed development would serve to provide a much-needed service to the surrounding communities and would improve the safety and security of the area.</p> |
| | <p>What will the benefits be to society in general and to the local communities?</p> |
| | <p>The affected local communities have historically been excluded from the Cape Town urban centres which makes it challenging for the inhabitants to travel to and from their places of work and education on a daily basis. It is an important provincial and national priority to provide improved accessibility to these areas. Furthermore, the commercial and industrial activities in the area would benefit from improved accessibility.</p> <p>The proposed development would provide the City of Cape Town with an opportunity to intensify the western portion of the Metro, providing improved connections and accessibility to the area as well as safe public transport for the future MyCiTi routes. Opportunities would also extend to communities beyond the immediate context of Wynberg, given that the proposed development would support access throughout the future MyCiTi route/ network which extends, just a few</p> |

kilometres to the east, to previously disadvantaged communities who have been historically subjected to apartheid spatial planning. These opportunities are as follows:

- Develop vibrant areas by removing barriers to access;
- Improve connectivity throughout the Metropolitan areas;
- Increase efficiency of people's movement and as an aid to the movement of commuters and development activities.
- Improve access and transportation routes to encourage future development and intensification of use;
- Decrease walking distances from residential and places of work to public transport facilities;
- Reinforce convergence on core routes and access points; and
- Reinforce the use of the existing bus stops as well as future bus stops.

How the **general objectives of Integrated Environmental Management** as set out in Section 23 of the NEMA have been taken into account:

The general objectives of environmental management are to:

- (a) Promote the integration of the principles of environmental management set out in section 2 into the making of all decisions which may have a significant effect on the environment.*

This assessment has been undertaken in accordance with the National Environmental Management Act (Act 107 of 1998), as amended, as well as with the EIA Regulations of April 2017. Furthermore, the development is supported by the relevant development plans (and in fact contributes to one of the key drivers thereof), thereby providing a process and proposed project that complies with the relevant frameworks.

The needs of the people as well as of the city as a whole have been considered and the proposed development is socially, environmentally, and economically sustainable with a view to creating accessibility for communities, while not causing unacceptable loss of natural spaces and systems beyond thresholds applicable to the context.

- (b) Identify, predict, and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimizing negative impacts, maximising benefits, and promoting compliance with the principles of environmental management set out in section 2.*

All potential impacts of the proposed development have been assessed in this report. The biophysical environment was considered, and appropriate mitigation measures have been recommended. The socio-economic aims have been aligned with the various goals presented in the national, provincial, and local development plans and encourage economic growth, social inclusivity, sustainability, and access for all citizens to a beautiful city. These are positive impacts for the affected communities and the City as a whole. Cultural impacts have been considered and not found to be significant.

Development footprint alternatives have been assessed for the proposed development, through this Basic Assessment process, and while not assessed, other alternatives such as site alternatives have been thoroughly considered for the proposed development but scoped out due to reasons around fit for purpose and context.

Lastly, the mitigation of adverse impacts as well as the enhancement of positive impacts has been considered and detailed in the EMPr for each site (**Appendix H**).

- (c) Ensure that the effects of activities on the environment receive adequate consideration before actions are taken in connection with them.*

The effects of the various activities on the environment have been well taken into consideration by various relevant specialists (i.e., heritage, botanical, freshwater, faunal, geotechnical, groundwater, MHI risk, noise, traffic/transport, agriculture, contamination, soil contamination, and civil engineering) through this process and are detailed in **Section I**, as well as appended as **Appendix G** of this report.

- (d) Ensure adequate and appropriate opportunity for public participation in decisions that may have a significant effect on the environment.*

Before the process started, early informal comment from key stakeholders was sourced by the EAP. Meaningful public engagement has also taken and will continue to take place as part of this Basic Assessment process. Over and above the legislated requirements, as part of this Basic Assessment process, a BID was distributed to surrounding land users and a preliminary I&AP database, and an FAQ document was drafted and distributed with that to the Bonnytown community for comment. This report is also currently available for public review and comment. A combined pre-application authority meeting has also been held as part of this process to align various statutory and authority requirements, and a Focus Group Meeting (FGM) has been held with departments from the City of Cape Town Informal Settlements, Planning and Development as well as Transport Planning to discuss alignment amongst the three departments/ branches for development on site and in the area. Further engagement is also underway, through a public review of this post-application draft Basic Assessment Report. Refer to **Appendix F** for the detailed methodology.

- (e) Ensure the consideration of environmental attributes in management and decision-making which may have a significant effect on the environment.*

Comments received from key stakeholders (largely state departments and authorities to-date) and independent specialists received to-date have been taken into consideration in the development of the current proposal and the drafting of the pre-application draft Basic Assessment Report. This report was published, prior to the submission of the

application for Environmental Authorisation form to elicit considered and informed comment from I&APs. Comments received during the 60-day public comment period have been incorporated into the report, namely the post-application draft Basic Assessment Report for further public comment (currently underway).

(f) *Identify and employ the modes of environmental management best suited to ensuring that a particular activity is pursued in accordance with the principles of environmental management set out in section 2.*

The proposed development and its associated activities have been assessed in terms of their fit with regard to current and future development and management plans for the area (i.e., there is a vacant site which is not earmarked for any other use by the landowner, the City of Cape Town, and biodiversity on site would not be unacceptably compromised beyond acceptable limits for the context, and surrounding biodiversity such as the Kenilworth Racecourse Conservation Area and Youngsfield military base would also not be adversely affected), the socio-economic development of the area and the impacts that the proposed development would have on the surrounding environment as well as the greater community and Cape Town area. Mitigation measures to reduce adverse impacts have been proposed and, conversely, measures have also been put in place to enhance potential positive impacts that the development would have. The proposed development is driven by the social need for connectivity and accessibility of communities and by the mandate of the City of Cape Town Transport directorate to provide safe public transport along the future MyCiti network.

Furthermore, the report informs authorities of uncertainties and assumptions to ensure that a cautious approach is adopted in decision-making. It has also undertaken extensive specialist assessment in order to illuminate any issues that may have been previously unknown, or which required further clarity.

In summary, the modes of environmental management employed in the assessment of the impacts of the proposed development are considered to be adequate.

18 Describe how the **principles of environmental management** as set out in Section 2 of the NEMA have been taken into account:

The principles of environmental management as set out in Section 2 of NEMA have been taken into account. The principles relevant to the proposed development include the following:

This process, as well as the proposed development places people and their needs at the forefront of its concern, and serves their physical, psychological, cultural, and social interests equitably, where relevant. This is particularly true of improving sustainable public transport and therefore, accessibility, for surrounding communities (this includes previously disadvantaged communities) as well as general accessibility through the City of Cape Town, while not removing any important/irreplaceable natural or cultural assets from them.

The proposed development is predicted to be socially, environmentally, and economically sustainable, provided the recommended mitigation measures (particularly with respect to biophysical impacts) are implemented.

The proposed development has applied sustainable development to the following factors:

- That the disturbance of ecosystems and loss of biological diversity has been avoided through the crafting of a preferred development footprint alternative which does not encroach upon sensitive environmental areas identified by specialists in the relevant field of expertise;
- That pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised, and remedied through the reduction in private transport, as well as through the partial removal of the existing waste (which has been illegally dumped for a long time) from the site;
- That the disturbance of landscapes and site that constitute the nation's cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied (note that the proposed site is not considered to be sensitive from a cultural or heritage perspective and note that the proposed landscaping would be implemented to provide for screening from the M5, from Wetton Road as well as from the Bonnytown informal settlement);
- That waste is avoided, or where it cannot be altogether avoided, minimised, and re-used or recycled where possible and otherwise disposed of in a responsible manner, particularly with regard to the recycling of water on the site (noting that all construction phase waste would be managed according to the requirements provided in the EMP);
- That the use and exploitation of non-renewable resources is responsible and equitable through providing a sustainable public transport service to surrounding communities (which also includes previously disadvantaged communities), noting that an additional aim of the proposal is to reduce private vehicle use and, therefore, reliance on fossil fuels;
- That a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions, particularly through the design which will consider climate change as well as future development in the area (noting that issues regarding climate change have been specifically addressed through the stormwater management plan which accounts for climate change modelling and has designed for those scenarios), as well as the methodology applied in the faunal impact assessment to consider the presence of WLT on site during breeding season and search to tadpoles thereafter, as well as assessing the site as though it is used as a faunal corridor based on evidence of WLT in breeding areas nearby although none were found on site; and
- That negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.

These impacts are documented in this report, with corresponding mitigation measures in the report and in the EMP (refer to **Appendix H**).

a) This Basic Assessment process has employed sound Environmental Management as integrated, acknowledging that all elements of the environment are linked and interrelated, and has taken into account the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable

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| | <p>environmental option through the evaluation of alternatives, explanation of the rationale that lead to the preference for the proposed site, and a meaningful public participation process (which is still in progress and has not concluded as yet).</p> <p>b) Environmental justice has been pursued such that the social benefits of the proposal would accrue to surrounding communities (including disadvantaged communities) and these communities would not bear significant adverse impacts or significant/unacceptable loss of natural assets. The adjacent Bonnytoun community would also not be affected by the proposed development in terms of its location (i.e., it would not encroach into the limits of the informal settlement), and they would be provided with a realigned and formalised access road as well as security fencing (the proposed depot fencing would partially enclose the settlement) to provide some improvement to their informal settlement. Furthermore, the adverse impacts anticipated would be mitigated.</p> <p>c) The principal of equitable access to environmental resources, benefits, and services to meet basic human needs and ensure human well-being has been pursued through the provision of improved accessibility to communities (including previously disadvantaged communities) and improvements to safety/security in the area. The proposed development itself is a state project by the City of Cape Town to contribute to transport infrastructure in the community and to provide safe and efficient public transport to all.</p> <p>d) The proposed development has considered its responsibility for the environmental health and safety consequences throughout its life cycle through the assessment and implementation of certain services as well as design features (e.g., rain harvesting, porous paving, natural landscaping, and a polishing stormwater pond that would clean the run-off before discharging into the wetland) that will reduce the impact of the in the area.</p> <p>e) The participation of all interested and affected parties in environmental governance has been promoted throughout this process and all potentially interested people in the area have been provided the opportunity to develop an understanding of the project through the statutory I&AP liaison, noting that detailed responses are contained within the comments and response report (Appendix F). Furthermore, this Basic Assessment report has been written in such a way that it is easy to understand, with images providing further clarification where required.</p> <p>f) The decision taken by the authorities would be based on the contents of the Basic Assessment Report, which will include all comments received from I&APs, which will serve to ensure that the interests, needs and values of all I&APs are considered. <u>Note that this iteration of the Basic Assessment Report is the post-application Draft, which is hereby distributed to registered I&APs for comment. Following public review, the BAR will be updated, and a final version submitted to the DEA&DP for decision-making.</u></p> <p>g) The decision taken by the authorities would be based on the contents of the Basic Assessment Report, which will include all comments received from I&APs, which will serve to ensure that the interests, needs and values of all I&APs are considered. As above, note that this is not the final Basic Assessment Report and still needs to include I&AP comments received <u>during the current public review period</u>.</p> <p>i) The social, economic, and environmental impacts of activities, including disadvantages and benefits, have been considered, assessed, and evaluated, and it is believed that enough information has been presented to support confident and informed decision making in the form of specialist assessment. However, the stakeholder/ public participation component is still required to run its course before that gap in the report can be addressed <u>(although some valuable comment has already been received and considered – refer to Appendix F).</u></p> <p>k) The principal of transparency and access to information must be provided in accordance with the law is adhered to throughout the Basic Assessment process with the publication and distribution of all information required by I&APs. It should be noted that I&APs who register on the database as registered I&APs, would have to do so in alignment with the Protection of Personal Information Act (No. 4 of 2013), as amended (POPIA), and would thereby consent to their information being stored on the database for this project, to be shared with the Applicant, the competent authority in the final BAR, and to be shared with any appellants (who would have to be a registered I&AP), should someone wish to appeal any decision/s by the competent authority related to this process.</p> <p>o) The consideration of the fact that the environment is held in public trust for people has been considered and the principle applied through the assessment of impacts and associated mitigation measures that must be applied to the proposed development. Assessment of impacts both on site, as well as offsite in terms of potential impact on the sensitive areas to the north (i.e., Kenilworth Racecourse Conservation Area/Reserve and west (i.e., Youngsfield) of the site.</p> <p>p) The “polluter pays” principal will be implemented through the EMPr for each site for all phases of the proposed development.</p> <p>r) The selection of the preferred development footprint was primarily based on avoiding the less degraded portion of wetlands (and resultantly, habitat for fauna such as the WLT and other amphibian species) on the property, thereby avoiding sensitive environments as far as possible. Impacts on nearby sensitive environments (i.e., Kenilworth Racecourse Conservation Area/ Reserve and Youngsfield Conservation area) have been assessed to be zero and so these sensitive and valuable areas would not be affected by the proposed development.</p> <p>Conclusion</p> <p>Overall, all development must, in terms of Section 24 of the Constitution, be ecologically sustainable, and economic and social development must be justifiable. The freshwater impact assessment, faunal impact assessment and botanical impact assessment have considered the sustainability of the ecological aspects on site and nearby (particularly because</p> |
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there are sensitive conservations areas nearby) and impacts have been found to be low (-) or Very Low (-), with mitigation and so the proposed expansion can occur sustainably from an environmental perspective. There are two exceptions with the faunal impact on the WLT movement corridor being medium (-), with mitigation, but this impact is considered acceptable in terms of the SCC SEI (Jackson & Martin, 2021). The other exception is that of potential impacts on groundwater (i.e., contamination of groundwater) which are ranked as medium to Low (-), but Naicker & Muller (2021) confirm that these can be adequately mitigated. The mitigation measures are important and must be implemented. That is why they are included as specifications in the EMP and are strongly recommended as conditions of authorisation in this Basic Assessment Report.

The economic and social aspects of the project are expected to be medium to high positive and would serve to provide connectivity, opportunity, and economic stimulus, as well as improvements to safety and security of site to surrounding communities (including previously disadvantaged communities), which are believed to be justifiable in the context of historic prejudice, intergenerational sustainability, and equity. Financial sustainability would be provided by the City of Cape Town through their various contracts for operations. In addition, the unconstitutional actions of a previous regime as well as historically poor/unjust spatial planning that did not cater for provision of public transport for all, would be rectified while ensuring that society as a whole can still benefit from the improved connectivity and access provided by the proposed development for generations to come. Noting also that no unacceptable loss (within the context of the ecological function and value of the site) of sensitive natural systems or areas would be experienced by the proposed development, which would result in some loss of completely transformed vegetation and highly degraded wetland/habitat, but that this would be compensated for through design and management mitigation measures, particularly where movement of fauna (including the WLT), and groundwater contamination prevention are concerned. The sensitive natural assets nearby, namely the Kenilworth Racecourse Conservation Area/ Reserve and the Youngsfield Conservation Area would not be adversely affected by the proposed development.

SECTION F: PUBLIC PARTICIPATION

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

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

Not Applicable, proposed development is not linear

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

The public participation process (PPP) to-date has far exceeded the minimum legislative requirements prescribed in regulation 41 of the EIA Regulations, 2014 (as amended).

The pre-application PPP included the following activities (noting that no alternative sites have been considered in impact assessment process):

- Compilation of a preliminary Interested and Affected Party (I&AP) database which is informed by research conducted by Chand on contemporary officials and stakeholder groups which may have an interest in the area or project. The I&AP database has been maintained throughout the Basic Assessment process as meetings with key stakeholders have been held. Therefore, the I&AP database includes parties required in terms of Regulation 41 (2) (b) of the EIA Regulations, 2014 (as amended).
- Compilation of a Background Information Document (BID) and distribution of the associated Notification Letter on 30 April 2021 for a 30-day comment period from 1 May 2021 to 1 June 2021. The notification of the BID was distributed via email to those I&APs with email addresses and via post to those who did not. The BID was available for download from Chand's website and delivered to surrounding owners via a knock-and-drop exercise.
- The BID was also distributed to the Bonnytoun informal settlement; however, an additional Frequently Asked Questions (FAQ) document was compiled specifically for the residents of the informal settlement pertaining to issues that would be more likely to directly affect them. This FAQ document was provided in English, Afrikaans and isiXhosa.
- A combined pre-application meeting was held with the Department of Water and Sanitation (DWS), DEA&DP: Development Management and DEA&DP: Pollution and Chemicals Management was held on 17 March 2021; and
- A Focus Group Meeting with City of Cape Town: Transport Management, City of Cape Town: Informal Settlements and City of Cape Town: Planning and Development on 27 May 2021

The PPP undertaken for the public review of the pre-application Draft BAR (from 20 July 2021 – 20 September 2021) included the following:

- A 60-day public comment period for the pre-application Draft BAR was provided.
- Knock and Drop delivery of a notification of the availability of the pre-application draft BAR to adjacent landowners;
- Notification of the availability of the pre-application draft BAR u emailed to the preliminary I&AP database and post was sent to those who do not have email addresses.
- The pre-application draft BAR was made available for download from Chand's website for the duration of the comment period.
- A separate executive summary of the pre-application draft BAR was made available for download from Chand's website for the duration of the comment period.

- Attempts were made to leave a hardcopy of the pre-application draft BAR at the Wynberg Public Library, however the library was closed at the time due to COVID-19 Lockdown Regulations.
- Note that no hardcopies of the post-application Basic Assessment Report have been issued to I&APs, however these will be made available upon reasonable request.

Evidence for the above is included in **Appendix F**, noting that contact information for I&APs have not been made public. However, as a registered I&AP, the registrations made are also in terms of the Protection of Personal Information Act and this information will be released to the Applicant, DEA&DP, as well as any appellants at the end of the process, and this information will become part of the public record.

Post-application PPP has included:

- A public comment period of a minimum 30 days for the post-application Draft BAR.
- Placement of two notice boards on the site where the proposed activities are to be undertaken on the site boundary, facing Wetton Road (noting that contents and size would adhere to requirements of Regulations 41 (3) and (4) of the EIA Regulations, 2014 (as amended)).
- Knock and Drop delivery of a notification of the availability of the post-application draft BAR to adjacent landowners.
- The post-application draft BAR has been made available for download from the EAP's website for the duration of the comment period.
- A separate executive summary of the post-application draft BAR has been made available for download from the EAP's website for the duration of the comment period.
- An Executive Summary hardcopy of the Post Application Draft BAR at the Wynberg Public Library and the Subcouncil 12 building, along with comment sheets and a comment box at each location.
- If the above is achieved, notices of the project and availability of information for review would also be distributed/ put up at key public places in the community such as libraries and shops. These notices would encourage I&APs to comment.
- Compilation and placement of one advertisement (in English) in which is a local newspaper (noting that contents would adhere to requirements of Regulation 41 (3) of the EIA Regulations, 2014 (as amended).
- Note that no hardcopies of the post-application Basic Assessment Report would be issued to I&APs, however these will be made available upon reasonable request.

Proof of post-application PPP activities will be included in the Final BAR which will be submitted to the DEA&DP for decision-making.

Once the DEA&DP has reviewed the Final BAR and issued their decision, the decision, date, reasons for decision, means to access the decision, and an explanation regarding the way the decision may be appealed, as well as any further requirements stipulated therein would be distributed to the registered I&AP database via email for those who have email addresses and post for those who have only postal addresses. It would also be uploaded onto the EAP's website so it would be accessible for download. The applicable appeal period would be explained in accordance with that included in the decision.

The key issues raised are indicated in **Section F6** below.

In terms of issues raised specifically by State Departments, note Section F6 below.

The issues raised have been addressed in this Basic Assessment Report through a number of ways such as providing a preferred development alternative footprint that avoids certain sensitivities, specialist assessments carried out, details included in the scope of specialist assessments, measures for control in the environmental specifications have been included in the EMP, and certain points of clarity have been included in the Basic Assessment Report.

Prior to initiating the various specialist studies, and when the site was initially considered a part of the land reservation, there was some internal engagement between City of Cape Town departments (note, not part of this Basic Assessment process). There was preliminary, informal, engagement between the EAP and CapeNature, DEA&DP, and City of Cape Town Environmental Management in order to identify potential key issues at an early stage. Although not part of the Basic Assessment process, it is useful to note the key points raised during those discussions and how they have been addressed, noting that, given the early stages of the project at the time (i.e., pre-pre-application) there was limited information available to discuss and points were raised at a high level. Refer to Table 5 for a summary of these. Note that, because the above engagements were informal and took place prior to the commencement of this process, there are no minutes or record of engagement thereof included in this report. This is not considered a flaw or gap in the process, because the public participation process as provided for in the PPP Plan has been carried out and will continue as such. The pre-application notes have been included in this report to demonstrate how early-stage issues raised by key state departments have been addressed.

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

Table 6 provides a summary of consultation with State Departments as part of this Basic Assessment process to-date as indicated in the NOI, noting that pre-application engagement with a small number of state departments did occur before this process started and is explained above. All departments indicated in the NOI have been consulted to varying degrees.

Table 6. State Department Consultation to-date as indicated in the NOI

| State Department / Organ of State | How comment was requested | Comment/ Notes |
|---|---|--|
| CapeNature: Mr. Marius Wheeler Regional Office, 72 Voortrekker Street, Porterville, 6810 Cell: 072 604 7593 Email: mwheeler@capenature.co.za | Provision of BID- no comment delivered thereon. | <u>Comment received on pre-application Draft BAR</u> |

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| | Provision of notification of the availability of Draft Basic Assessment Report for comment. | |
| City of Cape Town: Mr. Andy Greenwood and Mr. Damian Wentzel Tel: 021 444 11666 (Damian Wentzel); Email: damian.wentzel@capetown.gov.za Tel: 021 444 2612 (Andy Greenwood) Email: andy.greenwood@capetown.gov.za Note that the ERM branch will distribute to the relevant line departments- it is important that they also distribute to the Stormwater Management, Biodiversity and Parks branches | Provision of BID- no comment delivered thereon. Provision of notification of the availability of Draft Basic Assessment Report for comment. | Comment received on pre-application Draft BAR. |
| Department of Water and Sanitation: Mr. Mzukisi Noqhamza (Previous Case Officer) Private Bag X16, Sanlamhof, 7535 Tel: 021 941 6033 Cell: 082 953 0047 Email: NoqhamzaM@dws.gov.za Ms. Tshembani Ngoben (current case officer, as of 7 June 2021) (Tel063 33 1790, Email: Ngobenit@dws.gov.za) Ms. Nelisa Ndoben Email: ndobenin@dws.gov.za | A pre-application enquiry was logged on the e-WULAAS system on 12 October 2020 (reference no. 01/G22D/CI/12144) and a case officer was assigned on the same day. A pre-application meeting with the DWS (as well as DEA&DP: Land Management and DEA&DP: Pollution and Chemicals Management) was held on 17 March 2021 in order to ascertain the Department's requirements with regard to the need for a WULA (refer Annexure 4 for the minutes of this meeting as well as other associated documentation). Following the meeting, information on the site as well as the volumes of water that would require removal from site were provided to DWS and DWS provided comment in a letter dated 8 July 2021 confirming the triggers in terms of Section 21 of the NWA, noting that they did not request wetland offsets in this letter or in their comment on the pre-application Draft BAR. A WUL was issued on 4 th August 2023. Refer to Appendix O. | Comment received on pre-application Draft BAR. |
| Heritage Western Cape: Stephanie-Anne Barnardt. Tel: 021 483 5959. Email: stephanie.barnardt@westerncape.gov.za | NID submitted to HWC and HWC provide comment/ response thereto on 4 May 2021. HWC confirmed that there is no reason to believe that the proposed depot would impact heritage resources. Note assigned case number is 21040905SB0409E. | HWC confirmed that no further heritage assessment is considered necessary. The note regarding potential finds has been added to the EMPr. |
| Provincial Department of Transport and Public Works: Ms. Dru Martheze (Tel: 021 483 2177, Fax: 021 4832166, Email: nmartheze@pgwc.gov.za) (added post-NOI submission) Grace Swanepoel PO BOX 2603, Cape Town, 8000 Tel: 021483 4669 Cell: 072 835 8741 Email: Grace.Swanepoel@pgwc.gov.za Barend Du Preez PO BOX 2603, Cape Town, 8000 Tel: 021- 553 4167 Fax: 086- 559 5327 Cell: 083 701 2299 Email: barend@sturgeonsa.co.za | Provision of BID- no comment delivered thereon. Provision of notification of the availability of Draft Basic Assessment Report for comment. | No comment received on pre-application Draft BAR. Comment awaited on post-application Draft BAR. |
| Department of Agriculture Cor Van Der Walt (Land use Manager) Private Bag X1, Elsenburg, 7606 Tel: 021-808 5099/ 021 808 5111 Fax: 021-808 5092 Email: landuse.elsenburg@elsenburg.com | Provision of BID- no comment delivered thereon. Provision of notification of the availability of the Draft Basic Assessment Report for comment. | No comment received on pre-application Draft BAR. Comment awaited on post-application Draft BAR. |

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| <p>DEA&DP: Pollution and Chemicals Management Simon Botha 2nd Floor, Property Centre, 1 Dorp Street, Cape Town Email: Simon.Botha@westerncape.gov.za</p> <p>Masixole Langa 2nd Floor, Property Centre, 1 Dorp Street, Cape Town, 8001 Tel: 0214832976 Fax: 0214836687 Email: Masixole.Langa@westerncape.gov.za</p> <p>As of 2023, the new contact persons are as follows:</p> <p>Moe'mina Hoosain Utilitas Building, 1 Dorp Street, Cape Town, 8001 Tel: 0214830752 Fax: 0214836687 Moe'mina.Hoosain@westerncape.gov.za</p> <p>Thorsten Aab Utilitas Building, 1 Dorp Street, Cape Town, 8001. Tel: 0214830752 Fax: 0214836687 thorsten.aab@westerncape.gov.za</p> | <p>A pre-application meeting with the DEA&DP: Pollution and Chemicals Management (as well as DEA&DP: Land Management DWS) was held on 17 March 2021 in order to ascertain the Department's requirements with regard to the need for a Part 8 NEM: WA process and how that would align with this Basic Assessment process.</p> <p>Notification of potential contamination of land submitted in terms of Part 8 NEM: WA process on 4 May 2021.</p> <p>Provision of BID for comment- no comment delivered thereon.</p> <ul style="list-style-type: none"> • Chands Response to Notice of Identification of an Investigation Area was submitted on 17 February 2023. • Provision of notification of the availability of Draft Basic Assessment Report for comment in May 2023. • Meeting held on 10th July 2023 to determine way forward regarding status of the BAR. • Meeting held 19th July 2023 – to determine sampling points for soil, groundwater, and freshwater testing. • Groundwater and soil sampling results were submitted 4th September 2023. • Freshwater sampling results and findings were submitted on 23rd October 2023. • On the 21st of December 2023, a Remediation Order was issued by DEA&DP under Section 38(3) of the National Environmental Management: Waste Act (Act 59 of 2008). Within the Remediation Order the Department decided that the investigation area is deemed contaminated, presents an immediate risk, and that measures are required to monitor and manage the risk. Several measures to be undertaken to monitor and manage the risk were conditioned within the Remediation Order. These measures have been included within this report and the EMPr. | <p>Comment received on pre-application Draft BAR.</p> <p>Notice of the "Identification of an Investigation Area in term of Section 32 (2) of the NEM: WA received on 20th January 2023.</p> <p>Acknowledgment to response received 9th March 2023.</p> <p>Acknowledgment and response to soil and groundwater results submitted on 3rd October 2023</p> <p>On the 21st of December 2023, a Remediation Order was issued by DEA&DP under Section 38(3) of the National Environmental Management: Waste Act (Act 59 of 2008) for the contamination of the Wynberg waste dumping site on Erven 90475/RE, 90470 and 91191, Wetton Road, Wynberg (Reference number: 19/3/5/39) (refer to Appendix P8). Within the Remediation Order the Department decided that the investigation area is deemed contaminated, presents an immediate risk, and that measures are required to monitor and manage the risk. Several measures to be undertaken to monitor and manage the risk were conditioned within the Remediation Order. These measures have been included within this report and the EMPr.</p> <p>All mentioned correspondence can be found under Appendix P.</p> |
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| <p>DEA&DP: Waste Management Mr. Eddie Hanekom and Mr. Waleed Galvaan 6th Floor, Property Centre Building, 3 Dorp Street, Cape Town Tel: 021 483 8788 Fax: 021 483 4425 Email: waleed.galvaan@westerncape.gov.za</p> <p>Eddie Hanekom 5th Floor, Property Centre, 3 Dorp Street, Cape Town Tel: 021 4832728 Fax: 021 4834425 Email: Eddie.Hanekom@westerncape.gov.za</p> | <p>Inquiry was made with the DEA&DP: Waste Management branch regarding the historic (and current) illegal dumping on the site, presence of the waste on site, and legal requirements to develop the proposed bus depot therein, particularly regarding the proposal to remove some of the waste, compact, infill and develop upon that. DEA&DP: Waste Management provided written feedback in this regard (refer to their letter in Appendix E11 of the BAR), via their letter dated 19 February 2021, referenced 19/2/5/R, noting that a Part 8 NEM: WA process would apply, and so a Waste Management License would not be required for this. This letter also resulted in further discussions (i.e., the pre-application meeting of 17 March 2021) being held with DEA&DP: Pollution and Chemicals branch, and reduced engagement with the DEA&DP: Waste Management branch, given that there are no relevant statutory processes for this project which are within their mandate. Moving forward, they would be a commenting party. Provision of BID- no comment delivered thereon.</p> <p>Provision of notification of the availability of Draft Basic Assessment Report for comment.</p> | <p>Letter confirming the need for a Part 8 NEM: WA process and not a Waste Management License provided.</p> <p>Comment received on pre-application Draft BAR.</p> <p>Comment awaited on post-application Draft BAR.</p> |
| <p>DEA&DP: Air Quality Joy Learner 1 Dorp St, Cape Town City Centre, Cape Town, 8000 Tel: (021) 483 2798 Email: Joy.Learner@westerncape.gov.za</p> | <p>Provision of BID- no comment delivered thereon.</p> <p>Provision of notification of the availability of Draft Basic Assessment Report for comment.</p> | <p>Comment received on pre-application Draft BAR.</p> <p>Comment awaited on post-application Draft BAR.</p> |
| <p>DEA&DP: Biodiversity Marlene Laros Email: Marlene.Laros@westerncape.gov.za</p> | <p>Provision of BID- no comment delivered thereon.</p> <p>Provision of notification of the availability of Draft Basic Assessment Report for comment.</p> | <p>No comment received on pre-application Draft BAR</p> <p>Comment on this report awaited.</p> |
| <p>WCG: Department of Human Settlements Nathan Adriaanse Private Bag X9083, Cape Town, 8000 Tel: 0214832868 Fax: 0214834785 Email: Nathan.Adriaanse@westerncape.gov.za</p> | <p>Provision of BID- no comment delivered thereon.</p> <p>Provision of notification of the availability of - Draft Basic Assessment Report for comment.</p> | <p>No comment received on pre-application Draft BA.</p> <p>Comment on this report awaited.</p> |
| <p>It is hoped that the above will provide comment on this report within the statutory period. If not, as per Regulation 3 (4) of the EIA Regulations, 2014 (as amended), it will be assumed that they have no comment.</p> | | |

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

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| <p>The following State Departments have not been consulted:</p> <ul style="list-style-type: none"> • DEA: Oceans and Coast- the site is not located nearby a coastline; • DEA&DP: Coastal Management - the site is not located nearby a coastline; • DFFE- not applicable given that DEAD&DP is the competent authority in this regard; and • WCG: DoH- not applicable as the proposed development is not healthcare related and would not pose any risks to health off-site |
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5. if any of the State Departments and Organs of State did not respond, indicate which.

The following State Departments did not provide comment/respond to the pre-application Draft BAR, despite notification of the availability thereof:

- [Provincial Department of Transport and Public Works](#)
- [Department of Agriculture](#)
- [DEA&DP: Biodiversity](#)
- [WCG: Department of Human Settlements](#)
- [WCG: Department of Agriculture](#)
- [WCG: Department of Health](#)

The above listed have again be notified of the availability of this post-application Draft BAR.

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

PPP activities to date have elicited numerous valuable inputs, which have already been considered and incorporated into the development proposal. Key issues raised thus far are summarised below.

Initial issues raised as part of this process included the following:

- **HWC** note- "should any heritage resources, including evidence of graves and human burials, archaeological material and paleontological material be discovered during the execution of the activities above, all works must be stopped immediately, and Heritage Western Cape must be notified without delay." This has been added to the EMP as a construction phase specification.
- **City of Cape Town Informal Settlements** note to provide some infrastructure to the Bonnytoun community- the proposed development includes a formalised and realigned access road to Bonnytoun as well as partial perimeter fencing (the proposed depot fencing would partially the settlement) which will assist in securing Bonnytoun, noting that security lighting from the proposed depot would also add security/safety to the Bonnytoun community.
- **DEA&DP: Waste Management** confirmed that a Part 8 NEM: WA process applies to the site and proposed development, rather than the need for a Waste Management License. Therefore, no Waste Management License will be applied for, and the Part 8 process has been initiated (see below).
- **DEA&DP: Pollution and Chemicals** note that a Part 8 NEM: WA process must be followed, and these processes should align as far as possible, but noting that anything related to this must be a separate appendix to the BAR, given that it is a separate process to the NEMA process. In response, the notification for potential contamination of land was submitted to DEA&DP: Pollution and Chemicals Management on 4 May 2021. The Notice of Contaminated Land was submitted on the 23 January 2023 and a response to the Contaminated Land was submitted on 17 February 2023. After a discussion held with DEA&DP: Development Management and DEA&DP Pollutions and Chemicals Management on 10 July 2023, it was decided that samples and testing of groundwater, freshwater and soil would be conducted to allow the DEA&DP:PCM to give input, comment and guidance as well as to establish a baseline for testing for construction and operational phase will follow.

The Department has since identified the site as an 'Investigation Area' in terms of Section 36 (6) of the NEM: WA and a Notice was issued in this regard on 20 January 2023 (refer to **Appendix P2**).

A response to the Notice was provided to the Department by the EAP on behalf of the proponent on 17 February 2023. The response outlines the tasks to be undertaken by the City of Cape Town before commencement of construction to address the Department's concerns related to potential contamination on site, as raised in the Notice (refer to **Appendix P3** for the response). It was assumed that the Part 8 process would continue separate to this environmental application, however, on 10th July 2023, the City of Cape Town, via Chand Environmental were requested to withdraw the Application for Environmental Authorisation and submit a new application once the results for soil, groundwater and freshwater have been assessed and reviewed and commented on by the DEA&DP: Pollutions and Chemicals Management. These results can be found under **Appendix P4** and **Appendix P5**. On the 21st of December 2023, a Remediation Order was issued by DEA&DP under Section 38(3) of the National Environmental Management: Waste Act (Act 59 of 2008) for the contamination of the Wynberg waste dumping site on Erven 90475/RE, 90470 and 91191, Wetton Road, Wynberg (Reference number: 19/3/5/39) (refer to **Appendix P8**). Within the Remediation Order the Department decided that the investigation area is deemed contaminated, presents an immediate risk, and that measures are required to monitor and manage the risk. Several pre-construction and ongoing monitoring measures to be undertaken manage the risk were conditioned within the Remediation Order. These measures have been included within **Section 12** below of this report and the EMP.

- **DEA&DP: Land Management** commented on procedural requirements. These are being fulfilled as the Basic Assessment process unfurls, with key aspects to note thus far is that PPP is being carried out as per the approved PPP Plan, attempts have been made to engage DWS (including Mr. Dreyer of DWS, as noted by the DEA&DP) early in the process (refer to

Appendix F), however feedback has been absent. The freshwater assessment has been submitted as part of this report and it provides a recommendation and supporting rationale for no wetland offsets. DWS has confirmed that a Water Use License Application (WULA) applies and that Sections 21 (c) and (i) of the NWA are triggered, and they have commented on this report. The proposed development has since been authorised by the Department of Water and Sanitation (DWS) through the approval of a Section 21c and Section 21i Water Use License (01/G22D/CI/12144) (please refer to **Appendix E3**). The adherence to the specialist protocols is also explained on this report and the listed activity for indigenous vegetation is included in this assessment (and will be included in the application), but not the listed activity pertaining to clearance of more than 1ha- noting that the interpretation is also clarified in this report. Additional documentation required as part of the NOI was also submitted to the DEA&DP.

- **City of Cape Town: Planning and Development** has provided some high-level information regarding the intentions afoot for the Wynberg Sports precinct, namely that includes the optimisation and rationalisation of a "Wynberg Sports Precinct" which would make use of certain areas for sports facilities and consolidate the management thereof, as well as other areas for uses such as commercial development and residential use. They added that the City of Cape Town is currently devising such a Development Framework and that this framework and proposed Wynberg depot, as well as the way the Bonnytoun community is addressed should align from a spatial planning perspective. The precinct-level alignment is beyond the scope of this Basic Assessment process, but the City of Cape Town is continuing to engage internally in this regard (which was also agreed to/acknowledged at the inter-departmental meeting of 27 May 2021 (refer to minutes in **Appendix F**).

Issues raised during public review of the pre-application Draft BAR include:

- Department of Water & Sanitation: The importance of protecting groundwater, stormwater and freshwater systems at the site against potential contamination/pollution through careful design and monitoring (necessary control measures have been included in the EMPr for consideration during detail design and during the construction phase).
- DEA&DP: Development Management: The need for more detailed descriptions of certain proposed infrastructure (project description has been updated accordingly) and updated service capacity required (completed as requested).
- DEA&DP: Air Quality Management: The need for proper dust and noise control on site (appropriate control measures have been included in the EMPr).
- DEA&DP: Pollutions & Chemical Management: The need for groundwater monitoring and no groundwater abstraction on site given potential contamination (groundwater monitoring programme to be implemented and included in EMPr. NEM: WA Part 8 process also underway separate to this environmental application to further investigate contamination levels and impact of construction on groundwater quality) as well as the requirement for more frequent environmental monitoring/inspections during the construction phase (included in the EMPr).
- DEA&DP: Waste Management: The importance for stormwater treatment before discharge into the wetland at the site and proper management of any run-off/wastewater to mitigate the risk of increasing the levels of contamination in the groundwater (this has been addressed by the SWMP and design of the depot).
- City of Cape Town: Biodiversity Management Branch, Recreation & Parks and Environmental Management Department: Inputs into landscaping design (addressed by draft Landscaping Plan and will be included in the FBAR EMPr to ensure final Landscaping Plan addresses comments).
- City of Cape Town Recreation and Parks: The need for alien invasive species and fire management (included in the EMPr for implementation).
- City of Cape Town: Urban Planning & Design: Site not preferred for the type of development proposed due to environmental sensitivities, the ecological connectivity it provides and inconsistencies with the MSDP (2018) and Southern District Plan. Concerns around "urban heat island effect" and consideration of different roofing options/mixed used development (the proposal was discussed comprehensively with the City's Spatial Planning Department during the land use application's pre-application consultation process, and concerns with the proposal not deemed inconsistent with the spatial planning of the area. The biodiversity specialists have assessed the sensitivity of the site in detail).
- City of Cape Town: Planning and Development: The need for potential emergency road/access alternatives to allow public access to the future sports centre (eastern end of the Wynberg Sports Club) and the Bonnytoun community (alternative design has been considered but not a formal proposal yet as sports centre still in early stages and rights have not yet been obtained - see response in Comments & Responses Table).
- CapeNature and City of Cape Town: Environmental & Heritage Management: Further consideration of wetland offsets (addressed by Freshwater Impact Assessment which has determined that wetland offset not required given degraded state of wetlands on site – rehabilitation would also be implemented).
- City of Cape Town: Solid Waste Management: The need for an appropriately located refuse room and implementation of integrated waste management approach on site (addressed by updated site plan and EMPr).
- Bonnnytoun Community Forum: Objection to the proposal given potential to cause air pollution and the provision of housing being a more appropriate development option for the site.

The full comments and responses thereto are included in the Comments & Responses Report (**Appendix F**).

Note:

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

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

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

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

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

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

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

SECTION G: DESCRIPTION OF THE RECEIVING ENVIRONMENT

All specialist studies must be attached as Appendix G.

Please Note: specialist verification letters, confirming the validity of the assessments and investigations conducted have been received by all specialists. These verification letters may be reviewed in the relevant specialist theme in Appendix G.

1. Groundwater

| | | | |
|------|---|---|----|
| 1.1. | Was a specialist study conducted? | YES | NO |
| 1.2. | Provide the name and or company who conducted the specialist study. | <p>A groundwater impact assessment has been conducted by GEOSS, referenced throughout this report as "Naicker & Muller, 2021". A geotechnical assessment of the site also included consideration of groundwater, this was conducted by SRK and is referenced as "Brown & Engelsman, 2020" throughout this report.</p> <p><u>Further sampling and testing of wetland soil and groundwater was undertaken by GEOSS in August 2023 to better understand contamination risks (as instructed by the DEA&DP through the NEM: WA Part 8 Land Contamination process).</u></p> | |
| 1.3. | Indicate above which aquifer your proposed development will be located and explain how this has influenced your proposed development. | | |

The underlying aquifer is classified as an intergranular and fractured with an average yield potential 0.0 – 0.1L/s (Naicker & Muller, 2021). Water level data shows a shallow water table, linked with the upper primary aquifer. The regional groundwater mapping indicates the site overlays a low yielding intergranular and fractured aquifer with marginal groundwater quality for domestic use (Naicker & Muller, 2021). The aquifer vulnerability to contamination is mapped as being "high". This rating is likely associated with the mapped, flat-lying, unconsolidated alluvial material which is highly susceptible to point and non-point sources of contamination (Naicker & Muller, 2021). DWAF has classified the aquifer as being intergranular and fractured which implies the groundwater is from both the alluvial material and bedrock (Naicker & Muller, 2021). Given that the water levels are shallow (i.e., < 3 mbgl), it can be deduced that the upper intergranular aquifer has a higher likelihood of becoming contaminated (Naicker & Muller, 2021). The bedrock most likely consists of granite that weathers to clay forming a lower permeability layer above the fractured granite and is likely to provide some protection against point and non-point sources of contamination in the fractured aquifer (Harilall and Jonk, 2023). The depth to groundwater (approximately 2.5 mbgl on average across the site) provides limited opportunity for natural attenuation in the vadose zone, prior to contaminants reaching the groundwater (Naicker & Muller, 2021).

The findings of Naicker & Muller (2021) indicate that contamination of the upper intergranular aquifer is higher in likelihood and that there is a low permeability layer above the fractured granite bedrock which would provide some protection against point and non-point source contamination in the low fractured aquifer.

In a follow-up assessment conducted in 2023, it was determined that Copper, lead, zinc and mercury in the soil were observed to exceed SSV1 limits and pose a risk to the adjacent wetland (Harilall and Jonk, 2023). These metals, however, will not pose a risk to human receptors during the construction or operational phase of the bus depot. Based on the general decrease in concentrations of metal contaminants with increasing distance from west to east, it is further suspected that the wetland will act as a contaminant sink, preventing contaminated water from moving further downgradient (Harilall and Jonk, 2023). Certain organic determinants were measurable in the soil and the groundwater during the contamination assessment, but concentrations were quite low (Harilall and Jonk, 2023). Overall, none of the identified organic parameters have been classified as contaminants of potential concern to the wetland or human receptors during the construction and operational phases (Harilall and Jonk, 2023).

Response

Overall, it is possible that some contamination from the proposed depot could enter the groundwater. Groundwater monitoring has thus been recommended by the specialists and included in the EMPr in the operational specifications, as well as in the project description, as a requirement. It is also noted that impact on total recharge is not anticipated (i.e., reduction in recharge is deemed negligible in relation to the primary aquifer as a whole), but that the required groundwater monitoring would serve to monitor water levels over time and provide for detection of potential contamination proximal to the site (Naicker & Muller, 2021) (Harilall and Jonk, 2023). There are also other design-related measures included in the EMPr to prevent contamination and spills (refer to **Section G1.4** below for more detail in this regard, as well as to the EMPr in **Appendix H**). The contamination assessment responds to the geotechnical conditions on site through their sampling, which including collection of soil samples from "both the more recent sandy fill and the underlying older refuse horizon" ⁴(O'Brien & Engelsman, 2020).

| | |
|------|---|
| 1.4. | Indicate the depth of groundwater and explain how the depth of groundwater and type of aquifer (if present) has influenced your proposed development. |
|------|---|

Baseline conditions have been summarised by the EAP in **Table 7**, noting that desktop research as well as information from the freshwater impact assessment report has informed this summary.

Table 7 Summary of Groundwater Conditions relevant to site

| | | |
|--|-----|----|
| Shallow water table (less than 1.5m deep) The shallow water table is linked with the upper primary aquifer (Naicker & Muller, 2021) (Harilall and Jonk, 2023). | YES | NO |
| Seasonally wet soils (often close to water bodies) | YES | NO |
| Unstable rocky slopes or steep slopes with loose soil (35-45 degrees) | YES | NO |
| Dispersive soils (soils that dissolve in water) | YES | NO |
| Soils with high clay content Soil is largely described as "slightly clayey sand", the soils classify as SM-SC or SC (Brown & Engelsman, 2020). Note that although Steytler & Mugabe (2021) note that an extremely high clay content was observed within dumped fill material, particularly in the raised portion of the north-western corner of the site, this is within the context of that seen in wetlands and formal data in this regard will defer to the findings of the geotechnical investigation. This also implies that there are certain sections of the site that would have higher clay content than others. | YES | NO |
| Any other unstable soil or geological feature Although not a natural feature, the layers of refuse in the overlying fill make the founding conditions potentially problematic in terms of settlement/differential settlement and remedial measures will have to be undertaken to reduce the amount of potential settlement/differential settlement (Brown & Engelsman, 2020). | YES | NO |
| An area adjacent to or above an aquifer See notes below in this regard | YES | NO |

The site is located within the Table Mountain SWSA for surface water and the Cape Peninsula and Cape Flats SWSA for groundwater (refer to **Figure j**).



Figure j Strategic Water Source Area Map (created using Cape Farm Mapper, 2024)

Strong water seepage was encountered in all the test pits within the highly permeable refuse layer containing abundant glass bottles and other types of refuse (Brown & Engelsman, 2020). Brown & Engelsman (2020) pose that the elevation of the water table is likely to be similar and the depth to the water table below surface is probably a function of the variable level of the ground within the highly permeable refuse layer containing abundant glass bottles and other types of refuse. O'Brien & Engelsman (2020) also confirm that Groundwater seepage was encountered in all the test pits, with the depth to water ranged from 1.6 m to 3.1 m below surface. The average depth to groundwater is confirmed approximately 2.5 mbgl on average across the site (Naicker & Muller, 2021). This provides

limited opportunity for natural attenuation in the vadose zone, prior to contaminants reaching the groundwater and so measures to prevent contamination must be implemented (Naicker & Muller, 2021).

Response

In terms of addressing groundwater, potential contamination of ground water and site drainage, mitigation measures have been included in the EMPr to address construction-phase drainage (and to avoid this flooding into neighbouring properties, particularly Bonnytoun) as well as the design specifications regarding stormwater management (which aligns with requirements stipulated in the freshwater impact assessment and to provide for the loss of function that the infilling of the wetlands on site would cause, as well as the City of Cape Town SUDS policy, as well as being inclusive of climate change modelling). Further, the design of the stormwater system would be in accordance with the SUDS policy, noting that in-principal approval has been provided by the City of Cape Town (refer to **Appendix R**). Mitigation measures provided by the freshwater ecologist and groundwater specialists (i.e., geohydrologists) have also been included in the relevant specifications of the EMPr.

The groundwater monitoring programme recommended by Naicker & Muller (2021), as described in **Section G 1.3** above is also included in the operational specifications of the EMPr. In addition, there is a suite of design-phase specifications which are also included on the design specifications of the EMPr which would reduce risks of contamination of groundwater (and indeed soil and surface water) such as specifications for the USTs, spray booths, bunding/ spill containment structures, pipework installation, as well as leak detection and monitoring and general operations on site. These measures would bring the significance of impact on groundwater to medium to low (-), as it is largely an impact which can be mitigated (Naicker & Muller, 2021).

2. Surface water

| 2.1. | Was a specialist study conducted? | YES | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|--|--|--|---------------|--|--|--|-----------------|-----|----|----|---------------------|-----|----|---|-------------------|-----|----|--|------------------|-----|----|-------------------------|--------------------|-----|----|----------------|------|-----|----|----------------|
| 2.2. | Provide the name and/or company who conducted the specialist study. | Enviroswift, Nick Steytler and James Mugabe (reviewed by Natasha van de Haar), - referenced as "Steytler & Mugabe, 2021" throughout this report. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.3. | Explain how the presence of watercourse(s) and/or wetlands on the property(ies) has influenced your proposed development. | <p>Baseline/ Watercourses Present On and Near the Site</p> <p>A summary of general surface water conditions on the site as well as nearby the site is provided in Table 8.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <p align="center">Table 8. Snapshot of Surface Water Conditions on the Site and Adjacent to the Site</p> <table border="1"> <thead> <tr> <th colspan="3">SURFACE WATER</th> <th>If "YES": Distance to nearest area (m)</th> </tr> </thead> <tbody> <tr> <td>Perennial River</td> <td>YES</td> <td>NO</td> <td>NA</td> </tr> <tr> <td>Non-Perennial River</td> <td>YES</td> <td>NO</td> <td>Approx. 250m to the south and 350m to the north. The drainage line to the north is located on the far side of Wetton Road in the Kenilworth Racecourse site and the southern drainage line is shown to drain the southern extreme of the study area immediately east of the Golf Driving Range facilities and continues in a southerly direction (Steytler & Mugabe, 2021).</td> </tr> <tr> <td>Permanent Wetland</td> <td>YES</td> <td>NO</td> <td> <p>The City of Cape Town's wetland layer (CoCT, 2017) indicates the presence of a number of depression wetlands within and adjacent to the study area. The same depression wetlands are also indicated in the National Wetlands Map 5 (CSIR, 2018) (Steytler & Mugabe, 2021).</p> <p>The presence of mottling, gleying, leaching, elevated organic content, organic streaking, hydrophytic vegetation, and soil hydrology within the upper 500mm of the soil were all used in combination as indicators of the outer boundary of the temporary wetland zone (Steytler & Mugabe, 2021). Dumped material which is prevalent in the central and north-western parts of the greater erf exhibited a variety of soil types and characteristics (Steytler & Mugabe, 2021). The impermeable nature of the dumped material seems to have formed wetland conditions across large parts of this raised area (where wetlands would not ordinarily be expected) allowing establishment of wetland obligate vegetation (Steytler & Mugabe, 2021).</p> </td> </tr> <tr> <td>Seasonal Wetland</td> <td>YES</td> <td>NO</td> <td>Refer to above comment.</td> </tr> <tr> <td>Artificial Wetland</td> <td>YES</td> <td>NO</td> <td>Not applicable</td> </tr> <tr> <td>Pans</td> <td>YES</td> <td>NO</td> <td>Not applicable</td> </tr> </tbody> </table> | | | SURFACE WATER | | | If "YES": Distance to nearest area (m) | Perennial River | YES | NO | NA | Non-Perennial River | YES | NO | Approx. 250m to the south and 350m to the north. The drainage line to the north is located on the far side of Wetton Road in the Kenilworth Racecourse site and the southern drainage line is shown to drain the southern extreme of the study area immediately east of the Golf Driving Range facilities and continues in a southerly direction (Steytler & Mugabe, 2021). | Permanent Wetland | YES | NO | <p>The City of Cape Town's wetland layer (CoCT, 2017) indicates the presence of a number of depression wetlands within and adjacent to the study area. The same depression wetlands are also indicated in the National Wetlands Map 5 (CSIR, 2018) (Steytler & Mugabe, 2021).</p> <p>The presence of mottling, gleying, leaching, elevated organic content, organic streaking, hydrophytic vegetation, and soil hydrology within the upper 500mm of the soil were all used in combination as indicators of the outer boundary of the temporary wetland zone (Steytler & Mugabe, 2021). Dumped material which is prevalent in the central and north-western parts of the greater erf exhibited a variety of soil types and characteristics (Steytler & Mugabe, 2021). The impermeable nature of the dumped material seems to have formed wetland conditions across large parts of this raised area (where wetlands would not ordinarily be expected) allowing establishment of wetland obligate vegetation (Steytler & Mugabe, 2021).</p> | Seasonal Wetland | YES | NO | Refer to above comment. | Artificial Wetland | YES | NO | Not applicable | Pans | YES | NO | Not applicable |
| SURFACE WATER | | | If "YES": Distance to nearest area (m) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Perennial River | YES | NO | NA | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Non-Perennial River | YES | NO | Approx. 250m to the south and 350m to the north. The drainage line to the north is located on the far side of Wetton Road in the Kenilworth Racecourse site and the southern drainage line is shown to drain the southern extreme of the study area immediately east of the Golf Driving Range facilities and continues in a southerly direction (Steytler & Mugabe, 2021). | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Permanent Wetland | YES | NO | <p>The City of Cape Town's wetland layer (CoCT, 2017) indicates the presence of a number of depression wetlands within and adjacent to the study area. The same depression wetlands are also indicated in the National Wetlands Map 5 (CSIR, 2018) (Steytler & Mugabe, 2021).</p> <p>The presence of mottling, gleying, leaching, elevated organic content, organic streaking, hydrophytic vegetation, and soil hydrology within the upper 500mm of the soil were all used in combination as indicators of the outer boundary of the temporary wetland zone (Steytler & Mugabe, 2021). Dumped material which is prevalent in the central and north-western parts of the greater erf exhibited a variety of soil types and characteristics (Steytler & Mugabe, 2021). The impermeable nature of the dumped material seems to have formed wetland conditions across large parts of this raised area (where wetlands would not ordinarily be expected) allowing establishment of wetland obligate vegetation (Steytler & Mugabe, 2021).</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Seasonal Wetland | YES | NO | Refer to above comment. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Artificial Wetland | YES | NO | Not applicable | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pans | YES | NO | Not applicable | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

The City of Cape Town's wetland layer (CoCT, 2017) indicates the presence of a number of depression wetlands within and adjacent to the study area. The same depression wetlands are also indicated in the National Wetlands Map 5 (CSIR, 2018) (Steytler & Mugabe, 2021).

The site and area adjacent to the east and south comprises a vacant largely undeveloped site bound by transportation infrastructure to the east and north, an informal settlement to the west and the facilities of the Wynberg Golf Village and Driving Range to the site with the driving range comprising the only part of the site that is currently utilised (Steytler & Mugabe, 2021). The site and area adjacent to the east and south is highly transformed, heavily infested with alien invasive species and has been subject to dumping of waste and infilling and excavation (Steytler & Mugabe, 2021).

The presence of mottling, gleying, leaching, elevated organic content, organic streaking, hydrophytic vegetation, and soil hydrology within the upper 500mm of the soil were all used in combination as indicators of the outer boundary of the temporary wetland zone (Steytler & Mugabe, 2021). Dumped material which is prevalent in the central and north-western parts of the greater erf exhibited a variety of soil types and characteristics (Steytler & Mugabe, 2021). The impermeable nature of the dumped material seems to have formed wetland conditions across large parts of this raised area (where wetlands would not ordinarily be expected) allowing establishment of wetland obligate⁵ vegetation (Steytler & Mugabe, 2021). Wetland conditions within the raised area are therefore of unnatural origins, but since the raised area is bound on all sides by natural wetland conditions, the dumped material likely overlies a natural depression wetland (Steytler & Mugabe, 2021). The impermeable nature of the dumped material seems to have formed wetland conditions across large parts of this raised area (where wetlands would not ordinarily be expected) allowing establishment of wetland obligate⁶ vegetation (Steytler & Mugabe, 2021). Wetland conditions within the raised area are therefore of unnatural origins, but since the raised area is bound on all sides by natural wetland conditions, likely overlies a natural depression wetland (Steytler & Mugabe, 2021).

Figure k shows the delineated wetland boundary which comprises an area of $\pm 11,9$ ha within the site and surrounding area (Steytler & Mugabe, 2021). Terrestrial conditions were observed only around the driving range to the south of the site and in two isolated high points towards the centre of the greater study area (Steytler & Mugabe, 2021).



Figure k. Current extent of delineated wetlands shown in yellow and orange shadings within the study area. The proposed site (Alternative 2) for the depot is shown as a red polygon (source: Steytler & Mugabe, 2021)

Whereas the entire study area is highly impacted and transformed, distinction is drawn between more sensitive (less degraded) and less sensitive (degraded) portions since remnant natural habitat and degree of soil disturbance (i.e., dumped waste and infilling) (Steytler & Mugabe, 2021). These two markedly differing portions of the wetland have been categorised as 'less degraded and 'degraded' (Steytler & Mugabe, 2021). The development footprint for the preferred alternative for the proposed bus depot has been devised to remain solely within the "less degraded" wetland identified by Steytler & Mugabe (2021).

Vegetation within the site and surrounding area has been extensively disturbed through levelling, excavation, dumping of waste and informal settlement (Steytler & Mugabe, 2021). Consequently, alien invasive species proliferate, with observed terrestrial species including *Rapistrum rugosum* (Wild Mustard), *Lupinus angustifolius* (Blue Lupin), *Acacia saligna* (Port Jackson Willow), *Malva sylvestris* (Common Mallow), and *Pennisetum clandestinum* (Kikuyu). Where wetland soils were present, vegetation was dominated by *Arundo donax* (Spanish Reed), *Typha capensis*, and *Juncus kraussii* (Steytler & Mugabe, 2021). All these species are known to occur in wetlands and the latter two are listed as wetland obligate in Appendix T of DWAF (2008). Very dense clumps of *P. clandestinum* were also observed in areas that exhibited wetland soil indicators and hydrology (Steytler & Mugabe, 2021). While this species is not listed as wetland obligate, it is commonly found in wetlands where it grows particularly densely (Steytler & Mugabe, 2021).

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In terms of the wetland and aquatic ecosystem classification user manual (Ollis et al, 2013, in Steytler and Mugabe, 2021), the wetland can be classified as comprising a single depression wetland (Steytler & Mugabe, 2021).

The results of the assessment of the ecological health of the depression wetland are summarised in **Error! Reference source not found.** and **Error! Reference source not found.** below. The two wetland types were assessed separately. **Error! Reference source not found.** shows the state of the wetlands on site (i.e., degraded wetlands) and **Error! Reference source not found.** indicates the state of the wetlands adjacent to the site to the east (i.e., the less degraded wetlands), noting that this refers to the development footprint of the preferred Alternative (i.e. Alternative 2), because the development footprint for Alternative 1 would encroach into the less degraded wetlands.

Table 9: Freshwater Ecological Status of Wetlands on Site (source: Steytler & Mugabe, 2021)

| Indice | Overall Result | Key reasons: |
|--|----------------|---|
| Unit 1 (degraded portion of depression wetland) | | |
| WET-Ecoservices | Moderately Low | <ul style="list-style-type: none"> The services of potentially greatest importance were flood attenuation, nitrate removal, erosion control, carbon storage and maintenance of biodiversity which were all in the Intermediate range with erosion control scoring the highest. The importance of the unit to attenuate floods (Intermediate score) is mostly attributable to the inwardly draining nature of the unit (being a depression) which results in little or no outward flow during storm events. Being a depression, the wetland does not provide any regulation of streamflow. The unit scored Moderately Low on the removal of phosphates and toxicant removal, primarily attributed to the likelihood of these contaminant sources in the catchment and less so with the actual capacity of the wetland to remove these contaminants. The unit scored poorly in its ability to trap sediment, attributed partly to the wetland type which lacks any channel and the flat topography. While the unit showed an Intermediate likelihood of providing education and research owing to its significant size and easy access, the unit also scored Moderately Low for the provision of direct socio-economic benefits such as harvestable materials and production of foods, tourism, and education because the wetland, while having useable resources, is in fact not used by any local community in this way. |
| PES | Category "E" | <ul style="list-style-type: none"> The key hydrological impacts are due to the hardening of the catchment because of urban development and infilling and compaction of the wetland area as a result of dumping of rubble and other solid waste. These activities have altered the Unit's water retention and distribution patterns and caused an increase in stormwater flows. The dumping of rubble, occasional mowing and clearing of vegetation, as well as the extent of transformation to vegetation dominated by alien invasive vegetation has resulted in reduced surface roughness. In terms of vegetation a significant part of the unit has been transformed by historical excavation and infilling and dumping of rubble and other solid waste which has caused the loss of indigenous vegetation and encouraged alien vegetation infestation, especially kikuyu grass, <i>Acacia saligna</i> (Port Jackson willow) and <i>Acacia longifolia</i> (long leaved wattle). An additional impact on the vegetation has been fire which appears to have been caused because of the burning of cables which takes place frequently at the site. Hydrology, geomorphology, and vegetation are predicted to continue a downward trajectory (i.e., an increasingly impacted condition in the future) as there is evidence of continuing dumping and proliferation of invasive alien species. The accessibility of the site (due to it not being fenced off) and the presence of an informal settlement adjacent to the site are factors contributing to the continued downward trajectory. |
| EIS | Low/marginal | <ul style="list-style-type: none"> The unit is assessed as not being of any importance for biodiversity support as the site has been used for dumping, excavation and other forms of human disturbance which has completely transformed the wetland. Furthermore: <ul style="list-style-type: none"> The unit is not known nor is it likely to support any endangered or rare biota or populations of unique species despite falling within the historical distribution of a Critically Endangered terrestrial vegetation type (Cape Flats Sand Fynbos) and an Endangered wetland vegetation type (Peninsula Granite Fynbos). While possibly being used by Endangered <i>Amietophrynus pantherinus</i> (Western Leopard Toad) for dispersal purposes, the site is not known nor is it likely to be an important site for species migration, breeding and/or feeding and no species were observed utilising the site in these ways during the site inspection. The unit is recognised in the WCBSP (2017) or the BioNet (2017) as a "transformed site of conservation significance". At the landscape scale the unit can be regarded as having a low/marginal level of importance particularly in terms of size and rarity (extensive habitat transformation on the Cape Flats has resulted in remnant wetlands being |

| | | |
|--|--|---|
| | | <p>considered rare) and poor protection status of the surrounding vegetation type (± 1 % of Cape Flats Sand Fynbos is formally conserved). However, it must be noted that the Kenilworth Racecourse Conservation Area (KRCA) is a protected area that lies just north of this site whilst the area to the southeast of the site comprises the Youngsfield area, parts of which are listed in the WCBSP (2017) and BioNet (2017) as irreplaceable high and medium condition sites and restorable irreplaceable sites).</p> <ul style="list-style-type: none"> In terms of sensitivity the Unit is not sensitive to changes in floods and is of low sensitivity to changes in low flow owing primarily to its classification as a depression. |
|--|--|---|

Table 10 Freshwater Ecological Status of Wetlands Adjacent to the Site (source: Steytler & Mugabe, 2021)

| Indice | Overall Result | Key reasons: |
|---|----------------|--|
| <i>Unit 2 (less degraded portion of depression wetland)</i> | | |
| WET-Ecoservices | Moderately Low | <ul style="list-style-type: none"> Nitrate removal, toxicant removal, toxicant removal, erosion control, carbon storage and maintenance of biodiversity all scored Moderately High scores which is mostly attributable to the urban context in combination with the remnant natural habitat associated with this unit. The ability of the unit to provide flood attenuation and phosphate removal scored as Intermediate whereas the unit scored poorly for sediment trapping. The only direct socio-economic benefit that score an Intermediate score was education and research and this was due to the potential of the site for delivering this benefit due to its size and accessible location. In terms of the other direct socio-economic benefits of providing water supply, harvestable natural resources and tourism, recreation, and scenic value the unit scored poorly. The unit does not provide any food and is of no cultural significance. |
| PES | "Category D" | <ul style="list-style-type: none"> The hydrology of the unit has been impacted by the dumping, excavation, and other human activities at the site but significantly less so than Unit 1. Based on the available aerial imagery, approximately 20% of the Unit had been transformed by dumping, and approximately 50% by alien invasive species leaving approximately 30% untransformed. |
| EIS | Moderate | <ul style="list-style-type: none"> The unit is assessed as being of high importance for biodiversity support as: <ul style="list-style-type: none"> Despite the degree of transformation, the unit still retains some of its ecological functioning with some key wetland vegetation species being present. The unit may provide a dispersal corridor for the Endangered <i>A. pantherinus</i> (Western leopard toad) given recordings of toads approximately 200m from the site. Even though the unit is not known to be an important site for species migration, breeding and/or feeding and no species were observed utilising the site in these ways during the site inspection, the presence of wetland vegetation such as <i>Phragmites australis</i> and <i>Typha capensis</i> indicates that in the very least the unit provides breeding habitat for common, widespread fauna, particularly avifauna. In terms of sensitivity, the wetland is not sensitive to changes in floods and is of low sensitivity to changes in low flow, since it is a depression wetland. |

A Risk Assessment Matrix has also been compiled for the proposed development, which indicates largely low risk for the preferred alternative (refer to **Figure I** for a summarised version, and to **Appendix G(a)** for the full Risk Assessment Matrix). There is one aspect related to the construction phase where risk would be higher, namely in terms of loss of wetland habitat and function (through removal of vegetation and wetland soils) which provides a Moderate (-) risk (Steytler & Mugabe, 2021). Another aspect would have a moderate (+) impact/risk, and this relates to the improvements to water quality that would result from the removal of some of the waste illegally dumped on site (Steytler & Mugabe, 2021). The Risk Assessment Matrix includes several control measures.

| Nr. | Phases | Activity | Risk Rating |
|-----|--------------------|---|----------------|
| 1 | Construction Phase | Site preparation (vegetation clearing and excavations) | Moderate |
| | | | Low |
| | | | Low |
| | | | Low |
| 2 | Construction Phase | Operation of construction machinery and vehicles and presence of construction materials | Low |
| | | | Low |
| | | | Low |
| | | | Low |
| 3 | Construction Phase | Removal of solid waste (rubble and litter) | Low |
| | | | Moderate (+ve) |
| 4 | Operational Phase | Depot operations | Low |
| 5 | Operational Phase | Catchment hardening | Low |
| 6 | Operational Phase | Depot operations | Low |

Figure I. Summary of Risk Assessment Matrix (source: Steytler & Mugabe, 2021)

Refer to **Appendix G(a)** for the full freshwater impact assessment report and Risk Assessment Matrix.

Response

The presence of the wetlands on the site and surrounding area (on the property) have dictated the extent of the proposed development footprint for the preferred alternative (i.e., Alternative 2) which has been devised in order to avoid the less degraded wetlands, but rather to be located within the severely degraded wetland areas (refer to **Figure k**).

The severely degraded wetland on the site, as well as the less degraded wetland adjacent to the site have also informed the design of the proposed depot in terms of stormwater and run-off control, as well as other detail design measures (note that these are either included in the layout at present or indicated in the design specifications of the EMPr). The stormwater management system has been designed to respond to the current and future modelled run-off from the site with the increased hard surfaces that comprise the proposed depot, the system would be able to accommodate a 1 in 50-year return period (almost entirely through just the permeable paving (and that the water quality treatment design is aligned with the City of Cape Town SUDS) (GIBB, 2021)). The proposed stormwater management plan includes two key components that would respond to/ cater for the loss of function that would result from removing the wetland soils and habitat, with the primary component being the permeable paving, which is capable of providing appropriate attenuation (almost the full 1 in 50 year return period) and treatment of stormwater (GIBB, 2021), and the second is the stormwater pond in the north-east corner of the site (it would be excavated to be a low point, or the surrounding site may be raised somewhat) which would also capture water from the permeable pavers and hold it for further polishing and settlement before discharging into the less degraded wetlands to the east of the site (in order to recharge these). The proposed stormwater pond would also contain a "wet" area in the centre which would be wet for a large part of the year and function to control flow into the adjacent wetlands off-site. The landscaping for these areas would also mimic appropriate wetland vegetation (noting that landscaping on the remaining portions of the site would respond to the historic natural vegetation type and would therefore comprise appropriate Cape Flats Sand Fynbos species). This would result in a low (-) impact on the freshwater systems in terms of loss of habitat and function (Steytler & Mugabe, 2021) as Steytler & Mugabe (2021) note that upon review of the Stormwater Management Plan for the proposed Wynberg IRT bus depot (Gibb, 2021) it is evident that the proposed permeable paving system would satisfy this requirement (i.e., stormwater attenuation and water quality treatment facilities). Steytler & Mugabe (2021) also note that a detention pond is proposed which would include wetland habitat and add that this would play a small role in the provision of more diverse habitat on the site, however, this should not be an essential requirement as the proposed **permeable paving system that caters for the loss of the identified wetland function would be considered adequate**.

Other measures related to detail design would be those employed for containment of spills and fuel/oil leaks, which are included as design specifications in the EMPr.

Given that there are several impacts associated with the construction phase, the EMPr contains many specifications to control, manage and mitigate these impacts as recommended by the freshwater ecologist (and, in fact, all specialists). There are also general management measures included by the EAP which have been included in the environmental specifications in the EMPr to prevent significant and unacceptable adverse impacts of the watercourses associated with the proposed development. The EMPr also strictly requires that the adjacent wetlands (i.e., the less degraded wetland areas to the east of the site (see **Figure k**) be a no-go area.

It should be noted that **no wetland offset** is proposed. In this regard it is important to note that while both layout alternatives would entail the unavoidable loss of wetland habitat and function, the Low (-) significance of the immitigable loss of wetland habitat coupled with the mitigable loss of wetland function is in the opinion of the specialist considered to be acceptable and does not require any additional compensation (e.g., via a wetland offset) (Steytler & Mugabe, 2021). Given the low level of significance attributed to the loss of the wetland habitat on site, there can be no reasonable requirement in terms of NEMA or the NWA for offsetting of this loss, offsets being relevant only to address residual impacts that are above Low (-) significance (and ideally not high) (MacFarlane et al 2016, in Steytler & Mugabe, 2021). Note that the DWS has not requested wetland offsets either in their comment on the pre-application BAR (refer to **Appendix E3**) or in response to the WUL Application.

It is noted that CapeNature agrees with the specialist findings in that the site is degraded in terms of vegetation and freshwater. They are however of the opinion that the development will result in loss of wetland habitat and function that will not be fully mitigated through

stormwater management alone and as such a wetland offset should be calculated developed that includes the rehabilitation of the remaining wetland area. The preferred layout alternative (avoiding less degraded wetland area) is supported, provided that a wetland offset is provided. A wetland offset will however not be pursued given the reasons provided above.

3. Coastal Environment

Not Applicable, there is no coastal environment nearby the proposed road expansion.

| | | | |
|------|--|-----|----|
| 3.1. | Was a specialist study conducted? | YES | NO |
| 3.2. | Provide the name and/or company who conducted the specialist study. | | |
| 3.3. | Explain how the relevant considerations of Section 63 of the ICMA were taken into account and explain how this influenced your proposed development. | | |
| 3.4. | Explain how estuary management plans (if applicable) has influenced the proposed development. | | |
| 3.5. | Explain how the modelled coastal risk zones, the coastal protection zone, littoral active zone and estuarine functional zones, have influenced the proposed development. | | |

4. Biodiversity

| | | | |
|------|--|-----|----|
| 4.1. | Were specialist studies conducted? | YES | NO |
| 4.2. | Provide the name and/or company who conducted the specialist studies. | | |
| | NCC Environmental Services (Pty) Ltd (NCC) - Sean Altem (referenced as NCC, 2021 and NCC, 2024 throughout this report) | | |
| 4.3. | Explain which systematic conservation planning and other biodiversity informants such as vegetation maps, NFEPA, NSBA etc. have been used and how has this influenced your proposed development. | | |
| | Refer to Section E 4.4 and E6 above. | | |
| 4.4. | Explain how the objectives and management guidelines of the Biodiversity Spatial Plan have been used and how has this influenced your proposed development. | | |
| | Refer to Section E 4.4 and E6 above. | | |
| | Note that these have influence the proposed depot through the micro-siting thereof on the larger erf. The footprint for the preferred alternative has intentionally been limited to the comparatively more transformed areas of the property, both in terms of terrestrial and aquatic biodiversity and sensitivities. They have also influenced the level off assessment applied to this process to determine (through specialist assessment, notably hydrology and botanical) whether there would be adverse impacts from a buffering perspective to the nearby reserves, which are critically important and should not be compromised. In this regard, NCC (2021) confirms that losing the swathes of exotic grass, weeds and invasive alien plants on and around the site will not affect any important plant species found in the areas of concern at Kenilworth and/or Youngsfield. Furthermore, from a botanical perspective, the site does not appear to be of any concern in itself, especially in the current state, but rather its value likely lies in a support role to other areas of importance (Kenilworth Race Course and Youngsfield Military Base), which, again from a botanical perspective, this support role appears to be insignificant or non-existent (NCC, 2021). | | |
| 4.5. | Explain what impact the proposed development will have on the site-specific features and/or function of the Biodiversity Spatial Plan category and how has this influenced the proposed development. | | |

The site is completely (+99%) covered with exotic grass and invasive alien plants (IAP's), there is almost no indigenous species present (let alone cover) thus no species of conservation concern and being a non-ecologically managed open space within an urban environment there is no natural fire regime (NCC, 2021). The reports of Brown & Engelsman, O'Brien & Engelsman and GEOSS 2020 all confirm the highly altered soil and water profiles; a result of dumped litter layers of up to 3m thick with subsequent drainage effects (NCC, 2021). As soil and water are the growth substrate, and therefore highly sensitive factors for the survival CFSF, this renders the site irreversibly modified and completely unsuitable for CFSF to persist (NCC, 2021).

With most of the dry areas (within the less degraded wetland areas within the site) comprising an impenetrable mat of *Vicia sativa* covered *Pennisetum clandestinum* there are very limited and occasional instances where individual plants are found (NCC, 2021). During a 2018 site visit one plant of interest *Pterygodium orobanchoides* was encountered along with two small (<15 plants) patches of *Chasmanthe floribunda* on the bus depot portion of the site (NCC, 2021) (refer to **Figure m**). Both these species are however listed as being of, 'Least Concern' ⁷(NCC, 2021).



Figure m Location of Indigenous Vegetation on Site (source: NCC, 2021)

In summary, NCC (2021) confirms that the site has two general zones being wet and dry:

- **Dry areas** - The proposed bus depot area has been completely overrun by exotic and invasive species and despite findings of a few common indigenous species there are little to no signs of the former listed vegetation type which would be evidenced by ericaceous, proteoid, restioid and geophytic herb species. Along with the lack of indigenous species and invasion of foreign plant types, the terrain has been significantly modified, a likely cause for the dense covering of exotic grass species, and as such this portion of the site is seen as, '**Replaced - Removed**' on the VAST classification scale (Thackway, R. and Lesslie, R. 2005 in NCC, 2021). 'When alien grasses are established in an environment, they continue to alter the landscape in favour of their ongoing success' (Joubert, 2009). This irreplaceably modified state is in accordance with its CBA listing.
- **Wet Areas** (noting that further assessment in this regard is provided in Steytler & Mugabe (2021), the freshwater ecologist) - The wetland portions of the site appear to harbour no species typical of cape flats sand fynbos such as *Berzelia*, *Elegia* or *Psoralea* but comprise dense stands of *Thypha capensis*, *Phragmites australis* and *Cyperus tetitilis*. These species are typical pioneers and nuisance invaders of waterbodies, specifically those non-natural or altered with a high nutrient load. *Gomphocarpus physocarpus* and *Senecio pterophorus* are found in dense groupings on the riparian edges of these ponds. With due consideration of the former vegetation composition and species that would have historically inhabited the wetlands these portions of the site are now seen as, '**Replaced - Removed**' with all that remains being indigenous albeit nuisance cosmopolitan species. Due to potential misuse, changes in hydrology (roadway construction, earth dumping and drainage), the influence of exotic and invasive alien plant species (IAPS), poor or lack of appropriate management, trampling, mowing, an altered fire regime (a key driver in fynbos ecosystems) and isolated faunal influence the entire site has become completely degraded and irreplaceably modified and is seen as **Replaced - Removed** on the VAST classification scale as, 'Dominant structuring species of native vegetation community removed' or according to the ecological condition classes rating guidelines (Driver, A., Holness, S. & Daniels, F., 2017, in NCC, 2021) the overall site would be classified as being, '**Poor - Severely Modified**' as, 'Loss of composition, structure and ecological function is extensive'.

NCC (2021) also provides a table of indigenous plant species noted on site, refer to **Table 11**.

Table 11 Indigenous Species of Plant found on Site (source: NCC, 2021)

| Species | Form | SANBI Red List of South African Plants |
|----------------------------------|-----------|--|
| <i>Arctotheca calendula</i> | Flat weed | Least Concern |
| <i>Chasmanthe floribunda</i> | Geophyte | Least Concern |
| <i>Cotula turbinata</i> | Forb | Least Concern |
| <i>Cynodon dactylon</i> | Grass | Least Concern |
| <i>Cyperus textilis</i> | Reed | Least Concern |
| <i>Gomphocarpus physocarpus</i> | Shrub | Least Concern |
| <i>Helichrysum petiolare</i> | Shrubs | Least Concern |
| <i>Moraea flaccida</i> | Geophyte | Least Concern |
| <i>Pelargonium capitatum</i> | Shrub | Least Concern |
| <i>Pelargonium triste</i> | Shrub | Least Concern |
| <i>Phragmites australis</i> | Reed | Least Concern |
| <i>Pterygodium orobanchoides</i> | Forb | Least Concern |
| <i>Senecio arenarius</i> | Shrub | Least Concern |
| <i>Senecio pterophorus</i> | Shrub | Least Concern |
| <i>Senecio burchelli</i> | Shrub | Least Concern |
| <i>Senecio rigidus</i> | Shrub | Least Concern |
| <i>Stenotaphrum secundatum</i> | Grass | Least Concern |
| <i>Stoebe plumosa</i> | Shrub | Least Concern |
| <i>Sparaxis bulbifera</i> | Geophyte | Least Concern |
| <i>Trachyandra ciliata</i> | Forb | Least Concern |
| <i>Thypha capensis</i> | Reed | Least Concern |
| <i>Wachendorfia paniculata</i> | Forb | Least Concern |

Overall, the highly disturbed nature and fragmentation of the site renders it unsuitable for restoration of Cape Flats Sand Fynbos. The site is in an important spatial location in terms of the historical vegetation type but is far too degraded to ever recover. As per the CBA listing the site is, '**Irreversibly modified**' even though attempts to improve this could perhaps offer some ecological improvement. From a botanical perspective therefore, the site does not appear to be of any concern, and neither does it play a role in supporting the nearby areas of importance (i.e., Kenilworth Reserve and Youngsfield Military base) (it is insignificant or non-existent) (NCC, 2021). There are no significant direct or indirect negative botanical impacts associated with the development (NCC, 2021). It will not affect groundwater levels, it will not affect pollination potential between patches and no vegetation or species of conservation concern will be lost as a result (NCC, 2021). The vegetation of the site itself is of no value and thus the direct loss of this through clearing is thus inconsequential (NCC, 2021). The only impact of concern is the environmental impact of various fluids such as oils and wash liquids leaching into the ground or storm water (NCC, 2021). Lastly, the capping of the site should reduce harmful leachate emanating from the site and thus a positive environmental impact should result even though the positive botanical effect of this is likely to be very minimal or unnoticeable (NCC, 2021).

Due to the irreversibly transformed and highly degraded habitat along with the existing negative influences (dumping, trampling, fragmentation, weeds) and lack of positive appropriate vegetation drivers (fire, faunal corridors) as well as the noted absence of any SCC or likelihood of their reoccurrence, the study area (PAOI or site) is confirmed to be of a 'Low Sensitivity' for terrestrial plant species (NCC, 2024).

Response

Given that the proposed development footprint has been devised to be located within the most transformed components of the property and as far west as possible in order to limit obstruction of the potential corridor for faunal movement (note that although no WLT were identified on site during the site visits, the precautionary approach has been adopted and it has been assumed that they use the site as a movement/foraging corridor). The proposed development would also include the use of indigenous vegetation appropriate to Cape Flats Sand Fynbos (this is also a design and planning specification in the EMPr). The preferred alternative (i.e., Alternative 2) is supported by the botanist (NCC, 2021).

The primary impact indicated in NCC (2021), pertaining to the potential for groundwater contamination, have been addressed through design specifications included in the EMPr (refer to **Appendix H**) which require measures to prevent and contain leakages and spills for the proposed USTs, spray booths, and pipelines, and also to include bunding/ spill containment structures, pipework installation, as well as leak detection and monitoring and general operations on site. Groundwater monitoring is also included in the proposed development description and forms a requirement in the operational specifications of the EMPr. These measures would bring the significance of impact on groundwater to medium to low (-), as it is largely an impact which can be mitigated (Naicker & Muller, 2021).

This Basic Assessment process has also heeded the advice of NCC (2021) and included faunal and freshwater assessment, as well as a groundwater assessment, which fed into the findings of the botanical impact assessment report, particularly to confirm the impact and role of the site in nutrient buffering and groundwater recharge (i.e., the support role to nearby environmentally sensitive areas). The findings of those specialists have also been responded to in the proposed development and Basic Assessment process as described above and below.

Given the findings of the botanist, **no terrestrial biodiversity offset is proposed**, given the highly transformed nature of the land, and proven limited functions provided in terms of the current City of Cape Town BioNet designation. CapeNature agrees with this assessment.

| | |
|---|---|
| 4.6. | If your proposed development is in a protected area, explain how the proposed development is in line with the protected area management plan. |
| The proposed development will not be located within a Protected Area and would not likely impact the nearby Kenilworth Reserve and Youngsfield Military base. | |
| 4.7. | Explain how the presence of fauna on and adjacent to the proposed development has influenced your proposed development. |

A faunal impact assessment has been carried out by CES Environmental Services, by Amber Jackson and Taryn Martin, referenced as "Jackson & Martin, 2021" throughout this report.

The Site and its Function as a Faunal Corridor

Given the requirements for consideration of the site as a faunal corridor (NCC, 2021) raised in the botanical impact assessment report, the faunal impact assessment considers this. Although no significant botanical loss would result from the proposed development (NCC, 2021), it is worth noting that the intact and important pockets of Cape Flats Sand Fynbos at neighbouring sites at the Kenilworth Racecourse Conservation Area and Youngsfield Military Base are of ecological importance (Jackson & Martin, 2021). These areas may form part of the corridor that provides a refugia for important species and facilitates the movement of species within an urban area (refer to **Figure n**) (Jackson & Martin, 2021). However, **the project area occurs just outside of the formalised biodiversity corridors in the City of Cape Town** (Jackson & Martin, 2021).

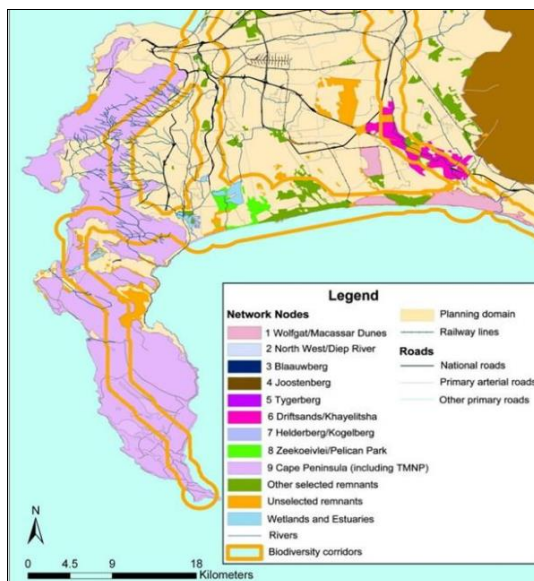


Figure n Potential Biodiversity Corridors in the City of Cape Town (source: Marlene Laros & Ass, 2007, in Jackson & Martin, 2021)

Notwithstanding the above, the precautionary principal is applied in the faunal assessment (and this Basic Assessment process) and the site and adjacent wetlands areas are considered a potential corridor for certain fauna.

Regarding the Western Leopard Toad (WLT), this is the only terrestrial vertebrate species of conservation concern (SCC), that may be impacted by the proposed development because it is possible that this species uses the project area as a corridor to access non-breeding sites (or for foraging grounds) as individuals have been found north of the project area while the breeding site is south of the project area (Jackson & Martin, 2021). The loss of this land for the construction of the proposed Wynberg IRT Depot would most likely result in the loss of extent of available habitat (Jackson & Martin, 2021). The severity of the impact for the construction of the project depends on the use of the project area by *S. pantherina* (i.e., WLT), if used as a corridor will have a moderate impact because the project is only taking up a portion of the corridor (Jackson & Martin, 2021). Since the absence of *S. pantherina* using the site cannot be proved beyond all doubt the precautionary approach has been applied and it is assumed that the WLT may use the site as such (Jackson & martin, 2021). The impact is assessed as moderate (-)/ Medium (-) with mitigation (Jackson & Martin, 2021). This aligns with impacts considered acceptable in terms of the SEI ascribed to this SCC through the faunal impact assessment (see more in this regard in "**Ecological Importance of the Site**" below). It is important to note that the proposed development would only remove a portion of the corridor leaving a width of 65m at its narrowest point in the south and 325m at its widest on Wetton Road (Jackson & Martin, 2021).

Disturbance to faunal species during operation is also assessed by the faunal specialist and the impacts are found to be Low (-) with mitigation, noting that the degraded area offers little ecological function, and the less degraded area maintains some functionality albeit very low (Jackson & Martin, 2021). It may function as a corridor but if the portion of degraded wetland were to be lost, this would have little impact on the function of the corridor (Jackson & Martin, 2021).

Jackson & Martin (2021) also note that the Kenilworth Racecourse Conservation Area falls within a green corridor that birds use as a flyway to access the north and south of the peninsula, birds include the Kelp Gull, Hartlaubs Gull and Swift Terns (Turpie and Cohen, 1998).

Fauna on and Near the Site

Four faunal groupings were looked at by a faunal specialist; amphibians, reptiles, mammals, and avifauna.

Amphibians

According to the relevant literature, 19 of the 60 species of amphibians known to occur in the Western Cape, have a distribution that coincides with the project area (Jackson & Martin, 2021). Approximately 13 of these 19 species have been recorded within a 2 km radius of the project area (Jackson & Martin, 2021).

In terms of amphibian species of conservation concern, three threatened species have a distribution which includes the project area (Jackson & Martin, 2021). These are the Micro Frog (*Microbatrachella capensis*) which is listed as Critically Endangered, and two Endangered species, namely the Western Leopard Toad (WLT) (*Sclerophrys pantherina*) and Cape Platanna (*Xenopus gilli*) (Jackson & Martin, 2021). It is highly unlikely that *M. capensis* (the Micro Frog) will occur outside of the Kenilworth Racecourse conservation area where a known population is found (Jackson & Martin, 2021). Similarly, while the Cape Platanna has been recorded at the Kenilworth Racecourse, it is unlikely to occur on site given the habitat requirements of this species, and the degraded nature of the wetlands

(Jackson & Martin, 2021). In total, 36 amphibian species are endemic to the Western Cape Province (Turner & de Villiers, 2017, in Jackson & Martin, 2021) and seven (7) of these have a distribution which includes the project area, namely the Micro Frog (*Microbatrachella capensis*), Western Leopard Toad (*Sclerophrys pantherina*), Cape Platanna (*Xenopus gilli*), Cape Rain Frog (*Breviceps gibbosus*), Cape Sand Toad (*Vandijkophrynus angusticeps*), Flat Caco (*Cacosternum platys*) and Arum Lily Frog (*Hyperolius horstockii*) (Jackson & Martin, 2021). None of these are endemic to the project area (Jackson & Martin, 2021). Due to the transformed nature of the site and the lack of suitable, available habitat it is unlikely that *C. platys* will occur in the project area. Both *B. gibbosus* and *V. angusticeps* may occur in the project area however, they are not exclusively dependent on the project area and the loss of the area will not impact on the viability of the population (Jackson & Martin, 2021).

Western Leopard Toad: The endemic WLT is of concern given the location of the site in the distribution range of the species (Jackson & Martin, 2021). The Western Leopard Toad is protected under the Nature Conservation Ordinance (19 of 1974) of the Western Cape Province (CapeNature, 2013; FrogMAP, 2020, in Jackson & Martin, 2021). This species inhabits fynbos and thicket habitat breeding in pans, vleis and dams with relatively deep (50cm) still permanent water (du Preez & Carruthers, 2017, in Jackson & Martin, 2021). It is however not restricted to pristine natural habitat and occurs in gardens, urban open spaces and farmlands, some breeding grounds may even experience some level of pollution and eutrophication (du Preez & Carruthers, 2017, FrogMAP, 2020, in Jackson & Martin, 2021). Outside of breeding they spend most of their time foraging within a few kilometres of their breeding ground (IUCN, 2016, in Jackson & Martin, 2021).

S. pantherina breeding season is between July-September, primarily in August and is known to breed in number of locations in the Cape Metropolitan Area, 80% of which is unprotected (FrogMAP, 2020; IUCN, 2016, Measey et al., 2014, in Jackson & Martin, 2021). These locations are summarised in **Table 12**.

Table 12 Location of WLT Breeding Areas in Cape Metropolitan Area (source: Jackson & Martin, 2021)

| | | | | | | | |
|--|-------------|-------------|------------|------------|------------|------------|---------------|
| Bergvliet | Grassy Park | Observatory | Sun Valley | Clovelly | Hout Bay | Ottery | Strandfontein |
| Constantia | Kalk Bay | Noordhoek | Tokai | Diep River | Kirstenhof | Philippi | Valkenberg |
| Fish Hoek | Kommetjie | Scarborough | Rondevlei | Glencairn | Lakeside | Southfield | Zeekoevlei |
| Cape of Good Hope Nature Reserve (northern limits) | | | | | | | |

The formally identified breeding sites within 2km was mapped in 2016 and illustrated in Figure o.



Figure o Formally mapped breeding and non-breeding locations of *S. pantherina* related to the project area, which is depicted as an approximation by the red rectangle (source: WLTCC, 2016 in Jackson & Martin, 2021)

While the WLT has not been recorded on site or at the Kenilworth Racecourse conservation area, it has been recorded within 2 km of the site (refer to **Figure aFigure o**) (Jackson & Martin, 2021). The nearest sightings being along Rosemead Avenue to the north-west of the site, and 20m east of the site at the Rosemead Dump (Jackson & Martin, 2021). Furthermore, two known active breeding sites occur within 2 km of the site at the Cape Royal Golf Club and at the Youngsfield CBA (Jackson & Martin, 2021). It also occurs on the edge of Ottery which is listed as a breeding area (Jackson & Martin, 2021). **This is important because the project area may be used to access nonbreeding sites or act as a non-breeding site** (Jackson & Martin, 2021).

No WLT were found breeding in the inundated wetland areas within the project area (Jackson & Martin, 2021), noting that the specialist specifically carried out a field survey during the breeding season of 2020. Generally seasonal wetlands have very little faunal diversity when dry but become diverse when inundated (Jackson & Martin, 2021). Given the seasonal nature of the wetland in the project area it is unlikely that the WLT uses the area permanently during non-breeding season (Jackson & Martin, 2021). No WLT were found breeding in the inundated wetland areas within the project area nor were tadpoles found following the breeding season (Jackson & Martin, 2021). Although not conclusive it is unlikely that the WLT utilises the project area for breeding (Jackson & Martin, 2021). **It is possible that this species uses the project area as a corridor to access non-breeding sites as individuals have been found north of the project area while the breeding site is south of the project area** (Jackson & Martin, 2021). It is important to note that the proposed development will only remove a portion of the corridor leaving a width of 65m at its narrowest point in the south and 325m at its widest on Wetton Road (Jackson & Martin, 2021).



Figure p: Known breeding and non-breeding locations of the WLT in relation to the site (red polygon) (source: Jackson & Martin, 2021)

During the field survey only *S. grayii* (commonly known as Gray's stream frog which is not of conservation concern) was found on site (Jackson & Martin, 2021).

Reptiles

Of the 153 reptile species that occur in the Western Cape, 51 species have a distribution that coincides with the project area (Jackson & Martin, 2021). Approximately 11 of these species have been recorded in a 2 km radius of the project area (with most of them recorded in Kenilworth Racecourse Conservation Area) (Jackson & Martin, 2021). These species include the Cape Legless Skink (*Acontias meleagris*), Marbled Leaf-toed Gecko (*Afrogecko porphyreus*), Cape Dwarf Chameleon (*Bradypodion pumilum*), Short-legged Seps (*Tetradactylus seps*), Common slug eater (*Duberia lutrix*), Olive House Snake (*Lycodonomorphus inornatus*), Brown Water Snake (*Lycodonomorphus rufulus*) and Mole Snake (*Pseudaspis cana*) (ADU, 2020, in Jackson & Martin, 2021).

The project area intersects the distribution of one threatened reptile species the Southern Adder (*Bitis armata*) and one near-threatened reptile species, the Cape Dwarf Chameleon (*Bradypodion pumilum*) (Jackson & Martin, 2021). The Southern Adder is however unlikely to occur in the project area due to the lack of habitat, and while the Cape Dwarf Chameleon may be found in the vegetation of the less degraded wetland, they are not exclusively dependent on the project area and thus the loss of the area will not impact on the viability of the population (Jackson & Martin, 2021). No reptiles were recorded during the field survey and one resident at Bonnytoun reported seeing a large black snake with big eyes that every so often moves through the project area (Jackson & Martin, 2021).

Mammals

The project area falls within the distribution ranges of 113 mammal species, 44 of which are likely to occur within the project area (Jackson & Martin, 2021). Approximately 12 mammal species have been recorded at the Kenilworth Racecourse Conservation Area and an additional eight species within 5km of the project area (Jackson & Martin, 2021). One 'Vulnerable' species (i.e., the white-tailed Rat, *Mystromys albicaudatus*), and three near threatened species (i.e., Fynbos Golden Mole, African Clawless Otter, and Laminated Vlei Rat) have a distribution which includes the project area (Jackson & Martin, 2021). The White-tailed Rat are never found on soft, sandy substrate, rocks, wetlands, or riverbanks (Avenant, 2019, in Jackson & Martin, 2021) is so very unlikely to occur in the project area and therefore will not be assessed further (Jackson & Martin, 2021).

Eight (8) mammal species are endemic to the Western Cape and ten (10) are near endemic (Jackson & Martin, 2021). Jackson & Martin (2021) explain that, of these five (5) areas endemic and three (3) are near endemic mammal species have distribution ranges that included through the project area, as follows:

- Cape Spiny Mouse (endemic to Western Cape- LC)
- Cape Dune Mole-rat (endemic to Western Cape- LC)
- Cape Gerbil (endemic to Western Cape- LC)
- African marsh rat (endemic to Western Cape- LC)
- Cape Golden Mole (endemic to Western Cape- DD)
- Cape Mole-rat (near endemic to Western Cape- LC)
- Cape Grysbok (near endemic to Western Cape- LC)
- Verreux's Mouse (near endemic to Western Cape- LC)

The only mammal observed on site during the field surveys, was the Four-striped Grass Mouse which is not of conservation concern (Jackson & Martin, 2021).

Avifauna

According to Avibase approximately 350 bird species have a distribution range that includes Wynberg and the Cape Magisterial Area, Western Cape Province (Lepage, 2020, in Jackson & Martin, 2021). The project area falls within the distribution ranges of 11 threatened bird species, 4 of which are considered 'Endangered' and 7 'Vulnerable' (Jackson & Martin, 2021). Regarding the Black Harrier (listed as Endangered), Youngsfield and KRCA potentially offer as important areas for the Black Harrier to breed because it offers intact fynbos in relatively protected areas where according to Jenkins and Simmons (2011) Harrier prefer intact patches exceeding 100ha (Jackson & Martin, 2021). Youngsfield and Kenilworth Racecourse Conservation Area combined have an area of just less than 100ha (Jackson &

Martin, 2021). As explained above and in NCC (2021), the project area is highly transformed, and no fynbos is present (Jackson & Martin, 2021). Although the project area may provide a suitable hunting area it is unlikely that any species of concern use the project area to breed (Jackson & Martin, 2021). The remaining species of conservation concern identified in Jackson & Martin (2021) are all listed as 'Vulnerable' and include the Small Buttonquail, the Hottentot Buttonquail, the African March Harrier, the Maccoa Duck, the Black Bustard, the Martial Eagle, Verreaux's Eagle, Lanner Falcon, and the Knysna Warbler. It is unlikely that most of those make use of the project area, with the only three that possibly use the site for hunting being the Africa Marsh-Harrier, Black Harrier, and the Lanner Falcon (Jackson & Martin, 2021). The birds seen in the project area include the Little Egret, Common Fiscal, Butcher bird, Neddicky, Cape Sparrow, Black-shouldered Kite and Helmeted Guineafowl (Jackson & Martin, 2021). The site is dominated by common bird species that can easily adapt to urban environments (Jackson & Martin, 2021).

Jackson & Martin (2021) note that the nearest Important Bird Area (IBA) is approximately 5.7 km southwest of the project area and conclude that the project area is of little significance to this IBA and the species that utilise it.

Ecological Importance of the Site

The Species Environmental Assessment guideline (SANBI, 2020) was applied to assess the Site Ecological Importance (SEI) of the site. The faunal habitats present on site, and the species of conservation concern were assessed based on their conservation importance (CI)⁸, functional integrity (FI)⁹ and receptor resilience (RR) (Jackson & Martin, 2021)¹⁰. The summary of the assessment of the SEI at each level is indicated in **Table 13**, with the spatial depiction thereof provided in **Figure q**.

Based on these indicators, both the less degraded and the degraded depression wetlands on site is considered to have a very low SEI at habitat level (Jackson & Martin, 2021). Under this rating, development activities of 'Medium' to 'High' impact are acceptable but with minimisation and restoration mitigation (Jackson & Martin, 2021).

The species level SEI assessment of the WLT concluded that the species is considered to have a high CI (given the 'Endangered' status), and because the site and surrounding area may offer a corridor to non-breeding season across transformed habitat, especially given the busy road network surrounding it, the FI of the species is low (Jackson & Martin, 2021). The WLT may use the site and adjacent area as a non-breeding area, due to proximity of known breeding areas (i.e., within 2km thereof) which gives it a High RR (Jackson & Martin, 2021). Overall, an SEI of Medium is applied to the WLT on site and for this rating, medium impacts for development are acceptable if restoration occurs (Jackson & Martin, 2021).

The project area has a have a High RR and thus a Medium SEI (Jackson & Martin, 2021).

'Low to Medium' SEI considers 'Medium' impacts acceptable for development activities if restoration activities are implemented (Jackson & Martin, 2021).

Although no likely to be found on site, as species of conservation concern, assessments were also completed for the Cape Platanna, Micro Frog, and Black Harrier, all of which were found to have 'Very Low' SEI which means that 'Medium to High' impacts would be considered acceptable with no need for restoration (Jackson & Martin, 2021).

Table 13 Summary of SEI of habitat and SCC (source: Jackson & Martin, 2021)

| Habitat / Species | CI | FI | RR | SEI |
|--------------------------------------|----------|----------|-----------|----------|
| <i>Less Degraded Wetland Habitat</i> | Low | Very Low | Very High | Very Low |
| <i>Degraded Wetland Habitat</i> | Very Low | Low | Very High | Very Low |
| <i>Xenopus gilli</i> | High | Very Low | Very High | Very Low |
| <i>Microbatrachella capensis</i> | High | Very Low | Very High | Very Low |
| <i>Sclerophrys pantherina</i> | High | Low | High | Medium |
| <i>Circus maurus</i> | High | Low | Very High | Very Low |

⁸ **Conservation Importance (CI)** is the importance of a site for supporting biodiversity features of conservation concern present e.g., populations of IUCN Threatened and Near-Threatened species (CR, EN, VU & NT), Rare, range-restricted species, globally significant populations of congregator species, and areas of threatened ecosystem types, through predominantly natural processes.

⁹ **Functional Integrity (FI)** is a measure of the ecological condition of the impact receptor as determined by its remaining intact and functional area, its connectivity to other natural areas and the degree of current persistent ecological impacts.

¹⁰ **Receptor Resilience (RR)** is the intrinsic capacity of the receptor to resist major damage from disturbance and/or to recover to its original state with limited or no human intervention.



Figure q. Combined SEI for habitats and SCC (source: Jackson & Martin, 2021)

Response

The proposed development responds spatially to the sensitivities indicated by Jackson & Martin (2021) through creation of a preferred alternative which avoids the Medium SEI area and restricts the development footprint to the Low SEI areas which also coincides with the extent of the severely degraded wetlands (as delineated by Steytler & Mugabe, 2021). Through this, the preferred layout would also allow for slightly larger corridor (i.e., The degraded wetland area adjacent to the site/ off-site/undeveloped area) with the preferred layout corridor width at 330m and the alternative layout at 300m in the north and the preferred layout corridor width at 80m and the alternative layout at 70m in the south (Jackson & Martin, 2021). The preferred alternative would have a slightly lower impact on the WLT corridor than the layout alternative (Jackson & Martin, 2021).

The WLT (*S. pantherina*) is the only threatened and endemic species that may occur onsite and most likely uses it as a corridor to access nonbreeding habitat (Jackson & Martin, 2021), and this has also been responded to in terms of limiting the proposed development footprint (for the preferred alternative) to the low SEI areas, keeping it as narrow as possible so as not to eliminate any possible corridor. The WLT and movement through the area would also be accommodated through design such as including a stormwater pond, planted to mimic wetland conditions (this is reflected in the draft site plan and landscape plan indicated in Figure b and Figure c respectively), located in the north-east corner of the site, as well as other WLT Design Guideline measures (these are required, and indicated as design and planning specification in the EMPr- see Appendix H). Other construction and operational management measures are also included in the EMPr specifications to remain aware of and avoid harm to the WLT (and, in fact, all fauna, other than pests). This also includes consideration during breeding season where the Applicant is required to employ a suitably trained individual during WLT migrations i.e., before and after breeding (late July-early sept) to check the project area for and move out of harm's way (Jackson & Martin, 2021) as included in the operation specifications of the EMPr. Measures are also included in the EMPr for management of trenching and fauna, as well as general measures for how to approach and handle any fauna found on site.

In terms of the assessment methodology following, the faunal impact assessment was carried out over an extended period to establish the extent to which the WLT may make use of the site (i.e., breeding, foraging, movement). To determine this, the specialist conducted sampling during the breeding season (August/September 2020) (Jackson & Martin, 2021). Sampling methods included acoustic survey and active searching in the evening once a week for four weeks and selected evening when nearby breeding sites were active (Jackson & Martin, 2021). Following the breeding season, the specialist proposed sampling for potential offspring (tadpoles) in case a breeding session was missed (Jackson & Martin, 2021). Development of egg to tadpoles to fully developed toad requires approximately 73 days (du Preez & Carruthers, 2017, in Jackson & Martin, 2021). Four baited traps were set in the inundated sections of the seasonal wetlands within the project area (Jackson & Martin, 2021). The inundated areas were ≥50cm deep and inundated at the time (Jackson & Martin, 2021). During the August/September survey between 25-50 Stream Frogs (*Strongylopus*) tadpoles were collected in each trap and tadpoles were at various stages of metamorphosis (Jackson & Martin, 2021). Selected tadpoles were collected and photographed for identification (Jackson & Martin, 2021). The presence of this species is not surprising given *S. grayii* adults were found both in the project area and adjacent to it during the previous survey (Jackson & Martin, 2021). Within the project area between 5-10 individuals could be heard calling along the access road to Bonnytoun, between 10-20 individuals could be heard calling at the area proposed for the attenuation pond and outside the project area between 20- 30 individuals could be heard calling from the less degraded wetland (Jackson & Martin, 2021). During the acoustic surveys two additional species could be heard calling, namely, the Arum Lily Frog (*Hyperolius horstockii*) and Cape Sand Frog (*Tomopterna delalandii*) (Jackson & Martin, 2021). **No WLT could be heard calling during the breeding season and no tadpoles were found** (Jackson & Martin, 2021). Nonetheless, the precautionary approach has been followed through the faunal impact assessment (and this Basic Assessment process) whereby **assumes that WLT do use the site as a corridor/foraging ground** and impact assessment, as well as mitigation require has been based on this assumption.

In summary, the proposed development responds to the faunal sensitivities through providing a preferred development footprint that falls only within a Low SEI, and there are design and further management measures to reduce faunal impacts to appropriate levels contained within the specifications in the EMPr. The assessment of impacts and recommendation of mitigation measures also follow the precautionary principal by assuming that the WLT uses the site and adjacent area as a movement corridor. The impacts are found to be acceptable in terms of the SEI rating of the site, even when one considers the SCC SEI of the WLT (which is ranked as Medium), which is that 'Medium' to 'High' impacts are acceptable but with minimisation and restoration mitigation (Jackson & Martin, 2021) (noting that most impacts are found to be low (-) with mitigation, but there is one medium (-) impact within mitigation (which refers to the impact of

development of the proposed depot on "Reduced *S. pantherina* foraging ground/corridor") for both development alternatives (Jackson & Martin, 2021).

5. Geographical Aspects

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

A **geotechnical** assessment of the site has been conducted by SRK (referenced as "Brown & Engelsman, 2020" in this report).

Soil is largely described as "slightly clayey sand", the soils classify as SM-SC or SC (Brown & Engelsman, 2020). Note that although Steytler & Mugabe (2021) note that an extremely high clay content was observed within dumped fill material, particularly in the raised portion of the north-western corner of the site, this is within the context of that seen in wetlands and formal data in this regard defers to the findings of the geotechnical investigation. This also implies that there are certain sections of the site that would have higher clay content than others.

The published geological map of the area indicates that the site is underlain by recent Quaternary deposits, underlain by clayey decomposed granite and granite at depth below the site (Brown & Engelsman, 2020).

The soil profile at the site is characterised by variable fill material overlying naturally transported *in situ* soils. The profile within the wetland has not been determined (Brown & Engelsman, 2020). The following general soil types on site were documented by Brown & Engelsman (2020):

- **Fill-Recent:** The filled area is covered by a layer of recent fill consisting mainly of slightly clayey silty fine to medium sand containing variable amounts of building rubble, concrete blocks etc., but no organic material. The fill varies in thickness from about 2.2 m (north-western corner of the site) to more than 3.5 m in places. The consistency of the fill varies from *loose* to *medium dense* or *dense* but has not appear to have been compacted to an engineering specification.
- **Fill- older:** The recent fill is underlain by what appears to be very old refuse fill. The refuse is dark brown/grey to black in colour and consists of slightly clayey silty fine to medium sand with abundant whole and broken glass bottles, pieces of porcelain, some ash and other possibly decomposed organic material. The refuse layer is highly permeable and strong groundwater inflow into the test pits was witnessed within this layer. It is difficult to assess the consistency of the refuse layer, but the Dynamic Probe Light Plot (DPL) tests provide an indication of the consistency which appears to be variably *loose* or *medium dense* (based on the DPL penetrometer rates).
- ***In situ* sandy transported:** The refuse is underlain by *in situ* material generally consisting of light grey or off-white, *medium dense*, fine to medium sand. The *in-situ* material is naturally transported material either of aeolian or alluvial origin.

The layers of refuse in the overlying fill make the founding conditions potentially problematic in terms of settlement/differential settlement and remedial measures will have to be undertaken to reduce the amount of potential settlement/differential settlement (Brown & Engelsman, 2020). The old refuse layer beneath the more recent fill material is the layer which is more prone to settlement, and it will be very difficult to improve the compaction within this layer (due to the depth and the saturated conditions) (Brown & Engelsman, 2020). The refuse layer was found to vary in thickness between about 0.3 m and about 1.2 m, with a probable average thickness in the order of about 0.8 m (although some thicker refuse layers are likely to be present) (Brown & Engelsman, 2020).

Various remedial options can be considered which will substantially reduce the risk of unacceptable levels of settlement taking place, therefore, options for ground preparation have been recommended for consideration (Brown & Engelsman, 2020).

An assessment of the current **stormwater** runoff from site, as well as provision of a Stormwater Management Plan has also been undertaken by GIBB (referenced as "Saunders *et al*, 2021" throughout this report).

The proposed bus depot location falls within the greater Diep River Catchment. The proposed Wynberg Depot site has an existing moderate overland slope of 0.60%, draining in a north-easterly direction toward the existing low-lying area adjacent to Kromboom Parkway (M5) (Saunders *et al*, 2021). Saunders *et al* (2021) confirm that there are the following existing stormwater infrastructure on site:

- 825 mm diameter pipe discharges into a 1 015 mm diameter pipe situated along Wetton Road for 286 m;
- The 1 015 mm diameter pipe discharges into a 1 225 mm diameter for 281 m, which then discharges into a 1 280 mm diameter pipe underneath Kromboom Parkway (M5);
- The 1 280 mm diameter pipe extends for 401 m and discharges into an 1 100 mm x 1 600 mm culvert to the east, remaining parallel to Wetton Road in the vicinity of Chukker Road Sports field.

The hydrological soil classification for the catchment and development site is **Group A/B**, permeable soils (Schulze *et al*, 2012, in Saunders *et al*, 2021). The proposed site premises, fall within in the potential natural infiltration zone (Saunders *et al*, 2021). Existing land use as a vacant, historic dump site as well as the future use (i.e., the proposed bus depot) have been considered in the stormwater management plan (Saunders *et al*, 2021).

Three stormwater design scenarios are investigated in Saunders *et al* (2021) who finally concludes that Scenario 1 (as labelled in the stormwater report) (i.e. provision of permeable paving and a detention facility with a "wet pool" to provide water quality amelioration; and a suitable cut-off measures to the south of the site) is the better option as it is the only scenario which functions optimally from both a water quantity and quality perspective (refer to Section H 1.3 for more on the stormwater options considered) . Further design recommendations are also provided in the stormwater management plan. It should also be noted that the existing wetland / depression storage has limited volumetric capacity when measured against the 1 in 50-year return period however no remedial measures are recommended for reasons provided in the stormwater management plan¹¹.

Response- Geotechnical

The findings of the geotechnical assessment do not preclude development on site, however the founding conditions must be considered, particularly in light of the indication that the fill materials are therefore potentially problematic in terms of settlement/differential settlement (due to the likelihood of older refuse layer being compressed, but the more recent layer and overlying fill not being properly compacted and contains some large concrete blocks, etc) and remedial measures will have to be undertaken to reduce the amount of potential settlement/differential settlement should the site be developed as an IRT depot (Brown & Engelsman, 2020). Options for ground preparation have been recommended for consideration (Brown & Engelsman, 2020).

Considering the above, remedial measures are proposed as part of the proposed development in terms of ground preparation and means to deal with the waste currently on site. Note that these measures have been provided by GIBB, who are the civil engineers on the project team and aligns with one of the options recommended (i.e., the "removal of a portion of the fill, crush and recompact"¹²

option) in the geotechnical assessment and would thus reduce the risk of unacceptable levels of settlement taking place (Brown & Engelsman, 2020).

A portion of the existing fill material (waste) would be removed, and additional fill would be imported and compacted, as follows:

- Remove about 1.5 m to 2.0 m of fill from final design road level (to ensure uniformity and to bridge the variability further down);
- Import 300 to 600 mm rockfill layer as roadbed (to create a solid working platform);
- Import 600 – 900 mm fill layer (min G9 Quality material) preference is to use imported material, instead of setting up a crusher (as consistency of material is important);
- Follow with an 800 mm thick structural pavement on top (or, in the case of landscaped areas, make use of topsoil/compost); and
- The surface options would be between semi rigid (block paving) or a flexible pavement (asphalt -to allow for potential settlement/ differential settlement and easier to repair afterwards)- depending on the site location. In landscaped areas, this would comprise planting, noting that where this is to occur in the stormwater management areas, the engineering layers would be laid first.

The cross-section of these layer works may differ slightly depending on the area of the site (i.e., landscaping and the stormwater pond would require different top layers).

In terms of how this process has responded to those issues, the EAP has been liaising with the Department's Waste Management and Contaminated Land officials in this regard, with the first correspondence being sent on 22 January 2021. Final feedback from the DEA&DP: Waste Management branch has been provided (refer to **Appendix E11**) in their letter dated 19 February 2021, referenced 19/2/5/R, and they have confirmed that a Waste Management License would not be required, but rather that a process in terms of Part 8 of the NEM: WA (i.e., contaminated land remediation) be followed.

The Department has since identified the site as an 'Investigation Area' in terms of Section 36 (6) of the NEM: WA and a Notice was issued in this regard on 20 January 2023 (refer to **Appendix P2**).

A response to the Notice was provided to the Department by the EAP on behalf of the proponent on 17 February 2023. The response outlines the tasks to be undertaken by the City of Cape Town before commencement of construction to address the Department's concerns related to potential contamination on site, as raised in the Notice (refer to **Appendix P3** for the response). It was assumed that the Part 8 process would continue separate to this environmental application, however, on 10th July 2023, the City of Cape Town, via Chand Environmental were requested to withdraw the Application for Environmental Authorisation and submit a new application once the results for soil, groundwater and freshwater have been assessed and reviewed and commented on by the DEA&DP: Pollutions and Chemicals Management. These results can be found under **Appendix P4** and **Appendix P5**.

On the 21st of December 2023, a Remediation Order was issued by DEA&DP under Section 38(3) of the National Environmental Management: Waste Act (Act 59 of 2008) for the contamination of the Wynberg waste dumping site on Erven 90475/RE, 90470 and 91191, Wetton Road, Wynberg (Reference number: 19/3/5/39) (refer to **Appendix P8**). Within the Remediation Order the Department decided that the investigation area is deemed contaminated, presents an immediate risk, and that measures are required to monitor and manage the risk. Several pre-construction and ongoing monitoring measures to be undertaken manage the risk were conditioned within the Remediation Order. These measures have been included within **Section I2** below of this report and the EMPr.

Response- Stormwater/ Surface Flow

The earthworks and hardening of the surfaces on site would result in changes to the surface water drainage regime on site. These potential changes have been considered and accommodated in the Stormwater Management Plan. The impacts are further discussed and assessed in the impacts assessment component of this report and the Stormwater Management Plan is located in Appendix G(c).

Further, cognisance has been given to climate change and its effect upon rainfall. Extrapolated rainfall data, from the City of Cape Town's rainfall grid, was based on the report titled "Impacts of Projected Climate Change on Design Rainfall and Stream flows in the Cape Town Metro Area" (Schulze *et al.*, 2011, in Saunders *et al.*, 2021). The extrapolated data was then applied to the proposed future development scenario. In addition, in order to meet the requirements of the City of Cape Town, the systems planned to serve the Wynberg bus depot has been based on the principle of Sustainable Urban Drainage Systems (SUDS) (Saunders *et al.*, 2021). The proposed stormwater system has been designed to manage water quantity as well as water quality of the anticipated additional run-off from the new hard surfaces on site. The permeable paving would provide quantity and quality control, with the proposed wet pool/ pond in the north-east corner allowing for further polishing, and flow control, into the adjacent wetlands (off-site). It should be noted that permeable paving can provide a high level of water quality treatment; over and above the two "markers" / target reduction pollutants (i.e., total suspended solids- TSS, and Total Phosphorous-TP) defined by the City of Cape Town (Saunders *et al.*, 2021).

The stormwater management plan proposed as part of the proposed development reflects the recommended "Scenario 1" (as labelled in the Stormwater Management Plan), which is indicated to be the only scenario which functions optimally from both a water quantity and quality perspective (Saunders *et al.*, 2021).

The EMPr also includes the design measures recommended in the stormwater management plan under the design and planning specifications.

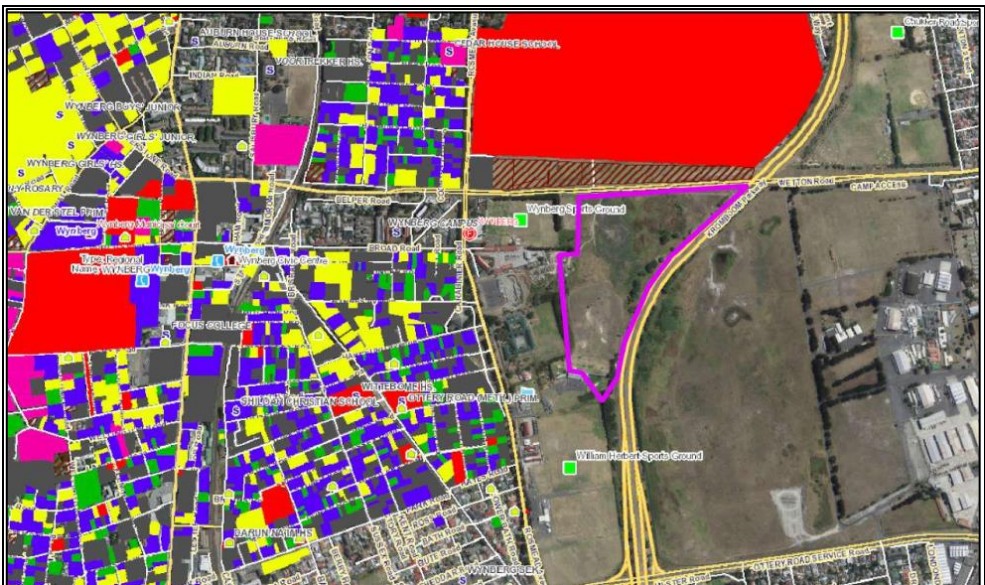
6. Heritage Resources

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

¹¹ P 43 of the Stormwater Management Plan (Saunders *et al.*, 2021)

¹² P 14, Brown & Engelsman, 2020

Jenna Lavin of CTS Heritage, referenced as "Lavin, February 2021" and "Lavin March 2021" throughout this report, conducted a heritage screener for the site and completed a NID and submitted it to HWC for their feedback.

| | |
|------|---|
| 6.3. | Explain how areas that contain sensitive heritage resources have influenced the proposed development. |
| | <p>Although the proposed development would fall within S38 (1) (c) (i) (development exceeding 5000 m² that will change the character of the site, specialist and HWC consideration has confirmed that no sensitive heritage areas would be affected by the proposed development. A Notification of Intent to Develop has been submitted to HWC and HWC has confirmed that no further assessment is necessary (refer to their comment in Appendix E1).</p> <p>Key heritage resources in the vicinity of the proposed depot have been identified by Lavin (February 2021 and March 2021) as follows:</p> <ul style="list-style-type: none"> • Kenilworth Racecourse and Kenilworth Racecourse Conservation Area (Grade IIA, resource of high local significance); • Chelsea Wynberg village; and • Heritage Protection Overlay Zone (HPOZ) <p>Refer to Figure r for the local heritage resources map.</p> <p>The area proposed for development falls outside of the proposed HPOZ and will not impact directly on any of the heritage resources identified by the CoCT (Lavin, February 2021).</p> <p>The area proposed for development has not been previously developed and as such, no structures of heritage significance will be directly impacted by the proposed development (Lavin, February 2021). In addition, it is unlikely that the proposed development will impact on any significant archaeological resources (Lavin, February 2021). The area proposed for development is underlain by geological sediments consisting of Quaternary Sands of low palaeontological sensitivity (blue) (Lavin, February 2021). Fossils associated with this geology are usually mammalian and can be associated with archaeological resources (Lavin, February 2021). It is unlikely that significant palaeontological resources will be impacted by the proposed development (Lavin, February 2021).</p>  <p>Figure r. Heritage Resources Map, Graded heritage resources as per the City of Cape Town Heritage Layer (Red: Grade IIIA, Yellow: Grade IIIB, Blue: Grade IIIC, Green: Potential Grade IIIC, Grey: Not Conservation-worthy, Striped: Requires further research) (source: Lavin, February 2021)</p> <p>Response Given that there are no heritage resources on site, there are no constraints to development for consideration in this regard, and this no further response is necessary. The selection of the preferred (and only) site has, therefore, avoided sensitive heritage resources.</p> |

7. Historical and Cultural Aspects

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

8. Socio/Economic Aspects

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

Given the fact that the proposed depot is located in Wynberg but is surrounded by other suburbs adjacent thereto (i.e., the site is located on the edge of Wynberg), all suburbs surrounding the site are considered herein.

Wynberg

With respect to the socio-economic context, the proposed Wynberg Depot falls within the suburb of Wynberg. Wynberg is located under Sub-council 18, Ward 63 (refer to **Figure s**). The proposed Wynberg Depot falls within that area.

Strategic Development Information and GIS Department (SDI&GIS), CoCT provides information on the suburb. Note that the information is based on data from the 2011 census. The population size is approximately 14 472, with a total of around 5 127 households with an average household size of 2.82.

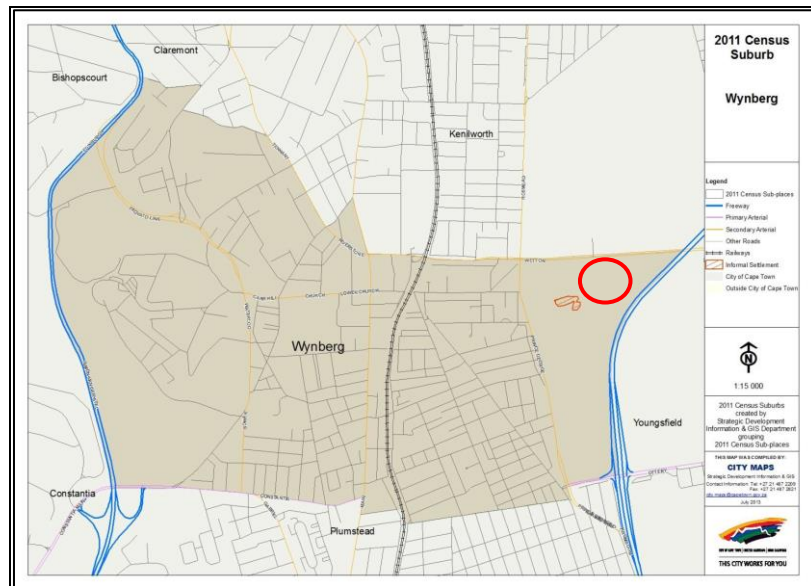


Figure s Location of Wynberg Suburb (source: City of Cape Town SDI&GIS, July 2013)

There are more females (53%) than males (47%) in the suburb¹³, with a mix of various ages with the majority between the ages of 25 - 29 (refer to Figure t).

¹³ Source: <https://census2011.adrianfrith.com/place/199041054>
FORM NO. BAR10/2019

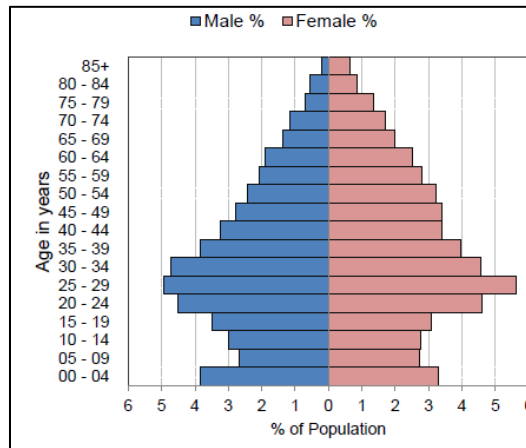


Figure 1 Wynberg Age Pyramid (source:

https://resource.capetown.gov.za/documentcentre/Documents/Maps%20and%20statistics/2011_Census_CT_Suburb_Wynberg_Profile.pdf) [accessed 6 June 2021]]

The largest segment of the population is Coloured at 46%, with the second largest group being White (24%). 21% of the suburb is Black African. Most people speak English (70%), while the second most widely spoken language is Afrikaans (15%)¹⁴. Key features of the suburb as per the 2011 Census include the following¹⁵:

- The population is predominantly Coloured (46%), White (24) and Black African (21%).
- 70% of those aged 20 years and older have completed Grade 12 or higher.
- 91% of the labour force (aged 15 to 64) is employed.
- 26% of households have a monthly income of R3 200 or less.
- 99% of households live in formal dwellings.
- 99.5% of households have access to piped water in their dwelling or inside their yard.
- 99% of households have access to a flush toilet connected to the public sewer system.
- 99% of households have their refuse removed at least once a week.
- 99.5% of households use electricity for lighting in their dwelling.

The percentage of residents who have an education level Grade 12 across all races is 35.9% and the percentage with a higher education is 33.8% (SDI&GIS, 2013). When looking at the race groups individually Black Africans have a higher percentage of Grade 12 education which is 44.4% in comparison to the other races (SDI&GIS, 2013). The race with the lowest percentage of Grade 12 education are the Whites at 31.5% (SDI&GIS, 2013). In this suburb there are various levels of education excluding the aforementioned which include no schooling, partial and completed and primary school as well as partial secondary schooling (SDI&GIS, 2013).

According to the Census 2011 for the Wynberg suburb, the Coloured population form the majority of the employed labour force, followed by the White population and thereafter the Black Africans. The average monthly household income for this suburb across all races R 12 801 – R 25 600 (SDI&GIS, 2013).

Kenilworth

With respect to the socio-economic context, adjacent to Wynberg (to the north and east) lies another suburb, namely Kenilworth (refer to **Figure u**). This suburb is located under sub council 20, Ward 59. SDI&GIS, City of Cape Town provide information on this suburb. Note that the information is based on data from the 2011 census.

¹⁴ Source: <https://census2011.adrianfrith.com/place/199041054>

¹⁵ Source: https://resource.capetown.gov.za/documentcentre/Documents/Maps%20and%20statistics/2011_Census_CT_Suburb_Wynberg_Profile.pdf

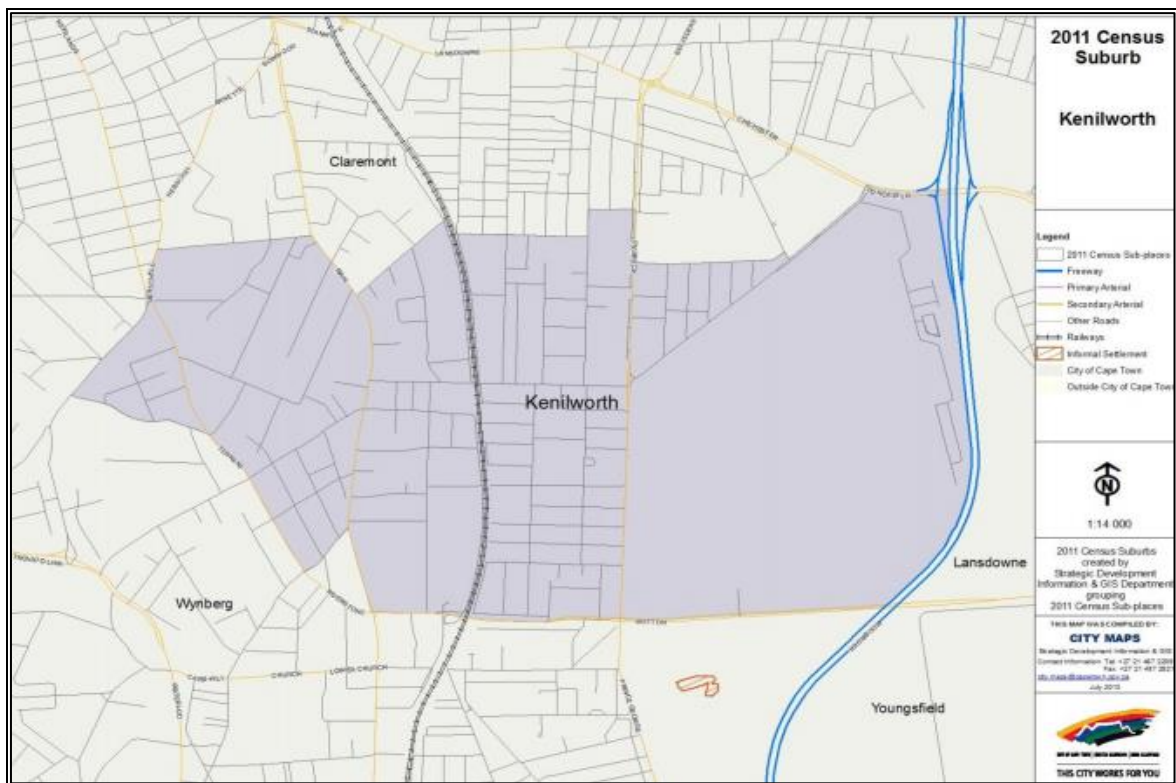


Figure u Location of Kenilworth Suburb (source: City of Cape Town SDI&GIS, July 2013)

The population size is approximately 10 872, with a total of around 5 157 households with an average household size of 2.11¹⁶. According to the 2011 census there are more females (54%) than males (46%) in this suburb (refer to **Figure v**).

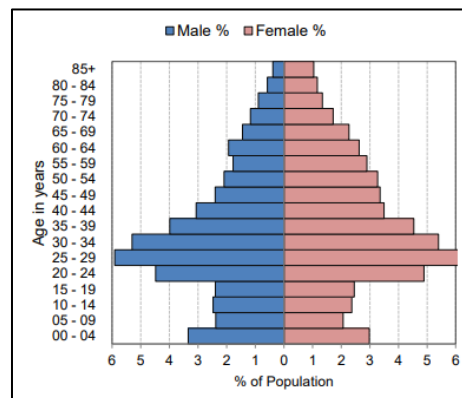


Figure v Kenilworth Age Pyramid (source: SDI & GIS, 2013)

The majority of the population consists of Whites (54%) followed by Black Africans (21%) and then Coloured at 16%¹⁷. The language predominantly spoken in this suburb is English (79%)¹⁸

Key features of the suburb as per the 2011 Census include the following (SDI & GIS, 2013):

- The population is predominantly White (54%), Black African (21%) and Coloured (16%).
- 87% of those aged 20 years and older have completed Grade 12 or higher.
- 96% of the labour force (aged 15 to 64) is employed.
- 15% of households have a monthly income of R3 200 or less.
- 99% of households live in formal dwellings.
- 99% of households have access to piped water in their dwelling or inside their yard.
- 99.5% of households have access to a flush toilet connected to the public sewer system.
- 99.5% of households have their refuse removed at least once a week.
- 99.6% of households use electricity for lighting in their dwelling.

More than half of the population has an education level higher than Grade 12 (57%) followed by an education level of Grade 12 at 30% (SDI & GIS, 2013). When looking at the race groups individually, the white population have a higher percentage of Grade 12 education which is 63% in comparison to the other races (SDI & GIS, 2013). According to census 2011 the employed labour force is made up of predominantly White individuals followed by Black Africans and then Coloureds (SDI & GIS, 2013).

Youngsfield

Adjacent to Wynberg, to the east, lies the suburb of Youngsfield. This suburb includes sub places such as Youngsfield and Royal Cape.



Figure w Location of Youngsfield Suburb (source: City of Cape Town SDI&GIS, July 2013)

According to the census 2011 suburb overview the population consisted of a population size 887 individuals¹⁹. Furthermore, the total number of households in this suburb was 210 with each of these households having an average of 4.2 individuals²⁰.

Based on the population pyramid in **Figure x** it can be seen that there are slightly more females (50.2%) than males 49.8%) in Youngsfield.

¹⁶ Source:

https://resource.capetown.gov.za/documentcentre/Documents/Maps%20and%20statistics/2011_Census_CT_Suburb_Kenilworth_Profile.pdf [accessed 29 June 2021]

¹⁷ Source: <https://census2011.adrianfrith.com/place/199041068> [accessed 29 June 2021]

¹⁸ Source: <https://census2011.adrianfrith.com/place/199041068> [accessed 29 June 2021]

¹⁹ Source:

https://resource.capetown.gov.za/documentcentre/Documents/Maps%20and%20statistics/2011_Census_CT_Suburb_Youngsfield_Profile.pdf [accessed 28 June 2021]

²⁰ Source:

https://resource.capetown.gov.za/documentcentre/Documents/Maps%20and%20statistics/2011_Census_CT_Suburb_Youngsfield_Profile.pdf [accessed 28 June 2021]

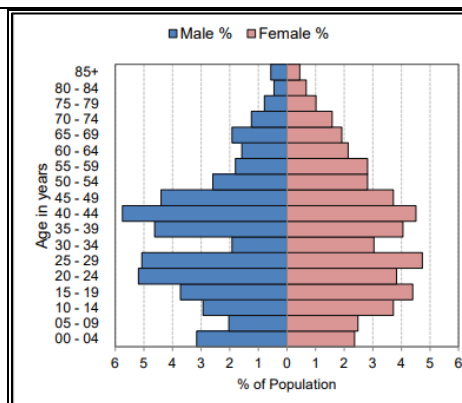


Figure x Youngsfield Age Pyramid (source: SDI & GIS, 2013)

The majority of the population consists of Coloureds (52.3%) followed by Black Africans at 21.4%. The White population makes up 20.2% of the total.

Key features of the suburb as per the 2011 Census include the following (SDI & GIS, 2013):

- The population is predominantly Coloured (52%), Black African (21%) and White (20%).
- 70% of those aged 20 years and older have completed Grade 12 or higher.
- 95% of the labour force (aged 15 to 64) is employed.
- 14% of households have a monthly income of R3 200 or less.
- 100% of households live in formal dwellings.
- 100% of households have access to piped water in their dwelling or inside their yard.
- 100% of households have access to a flush toilet connected to the public sewer system.
- 100% of households have their refuse removed at least once a week.
- 100% of households use electricity for lighting in their dwelling.

Based on the data from census 2011 the majority age group of this suburb is between 25 – 64 years old (55.5%) with an education level higher than Matric being the highest educational level at 36.3% (SDI & GIS, 2013). The second highest education level for Youngsfield is Grade 12 at 33.5% (SDI & GIS, 2013).

With regards to monthly household income, the highest salary range that is earned is between R 25 601 – R 51 200 at 22.9% with the majority of these individuals being Coloured (33.3%) (SDI & GIS, 2013).

| | |
|------|--|
| 8.2. | Explain the socio-economic value/contribution of the proposed development. |
| | <p>The contribution will be providing a subsidised public transport system in the east metro which will help uplift the communities and help create an economic knock-on.</p> <p>Further socio-economic aspects of the proposed development are included in Table 14.</p> |

Table 14 Socio-economic aspects of the proposed development (source: pers comms, N. Billings, City of Cape Town Transport Planning, Project Manager)

| | | |
|---|---|----|
| What is the expected capital value of the project on completion? | Approximately R 250 000 000.00 in total with the first phase being R150 000 000.00 of the total amount. | |
| What is the expected yearly income or contribution to the economy that will be generated by or as a result of the project? | The functioning depot facility will generate job opportunities for an estimated 70 people + 130 bus drivers, generating a combined yearly income of R47 000 000.00. In addition, the contribution to the economy provided by increased public transport services to the IRT Ph2 Trunk route area, is immeasurable. | |
| Will the project contribute to service infrastructure? | YES | NO |
| Is the project a public amenity? | YES | NO |
| How many new employment opportunities will be created during the development phase? | The City of Cape Town estimates the construction phase will trigger an estimated 70 jobs directed at different labour sectors. The end state depot will function with a staff of up to 70 personnel and 130 bus drivers. | |
| What is the expected value of the employment opportunities during the development phase? | R30 000 000.00 for the 2-year construction. R18 000 000.00 for professional services to design and oversee construction. This provides a total of R48 000 000.00 (forty-eight million Rand). | |
| What percentage of this will accrue to previously disadvantaged individuals? | The exact percentage would only be determined in the "Empowerment Management Plan" which is required as part of the Contractor's bid. It is important to note that the applicant will comply with the Preferential Procurement Policy Framework Act 5 of 2000 and the Public Finance Management Act 1 of 1999. | |
| How will this be ensured and monitored (please explain): | | |
| The Contractor would be responsible for recruiting targeted labour in accordance with the contract specifications. The EMP provides for the use of previously disadvantaged individuals for the bulk of the unskilled labour as well as for the skilled labour, where feasible and in accordance with City of Cape Town procurement processes and requirements. | | |
| How many permanent new employment opportunities will be created during the operational phase of the project? | Approx. 200 | |
| What is the expected current value of the employment opportunities during the first 10 years? | R470 000 000.00 | |
| What percentage of this will accrue to previously disadvantaged individuals? | The exact percentage would only be determined in the "Empowerment Management Plan" which is required as part of the Contractor's bid. It is important to note that the applicant will comply with the Preferential Procurement Policy Framework Act 5 of 2000 and the Public Finance Management Act 1 of 1999. | |
| How will this be ensured and monitored (please explain): | | |
| The Contractor would be responsible for recruiting targeted labour in accordance with the contract specifications. The EMP provides for the use of previously disadvantaged individuals for the bulk of the unskilled labour as well as for the skilled labour, where feasible and in accordance with City of Cape Town procurement processes and requirements. | | |
| Any other information related to the manner in which the socio-economic aspects will be impacted: | | |
| The accessibility and connectivity for the surrounding communities and businesses will be significantly improved upon. The communities would have safe, efficient, reliable, and affordable access to economic opportunities and the businesses would benefit from improved access for staff and clients. | | |

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

The entire proposed development is a social initiative by the City of Cape Town in order to provide improved infrastructure and transport facilities to the affected surrounding communities, and the nodes beyond. Furthermore, there are two aspects of the proposed development that would contribute to the upliftment of the Bonnytoun community, namely the formalisation of a realigned access road (in order to address issues of accessibility and erosion) as well as the provision of fencing (to address issues of vagrancy in the Bonnytoun community) as the proposed depot fencing would partially enclose the settlement.

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

The affected local communities have historically been excluded from the Cape Town urban centres which makes it challenging for the inhabitants to travel to and from their places of work and education on a daily basis. It is an important provincial and national priority to provide improved accessibility to these areas. Furthermore, the commercial and industrial activities in the area would benefit from improved accessibility.

The proposed development would provide the City of Cape Town with an opportunity to intensify the western portion of the Metro, providing improved connections and accessibility to the area as well as safe public transport for the future MyCiTi routes. Opportunities would also extend to communities beyond the immediate context of Wynberg, given that the proposed development would support access throughout the future MyCiTi route/ network which extends, just a few kilometres to the east, to previously disadvantaged communities who have been historically subjected to apartheid spatial planning. These opportunities are as follows:

- Develop vibrant areas by removing barriers to access;
- Improve connectivity throughout the Metropolitan areas;
- Increase efficiency of people's movement and as an aid to the movement of commuters and development activities.
- Improve access and transportation routes to encourage future development and intensification of use;
- Decrease walking distances from residential and places of work to public transport facilities;
- Reinforce convergence on core routes and access points; and
- Reinforce the use of the existing bus stops as well as future bus stops.

Given the nature of the immediate surroundings of the sites, it is anticipated that there will be no significant impact on people's health other than the potential impacts associated with dust and other particles of potential respiratory irritants that could be distributed in the air during the construction phase, which would likely affect the utilities and public amenities adjacent to the site, as well as the Bonnytoun community, and possibly users of Wetton Road. These impacts would be of a short duration and mitigation will serve to reduce this occurrence to acceptable levels.

With respect to the wellbeing of surrounding land users during the construction phase, the following is noted:

- Noise impacts will also be temporary and mitigated through the implementation of the EMPr for each site to an acceptable level;
- There would be no odours associated with the proposed development;
- The visual character of the site would change, but the landscaping and improvements to safety of the site would mitigate the visual impacts, over time;
- There may be minor disruptions in traffic during the construction phase, which would be mitigated in the EMPr for each site.
- The EMPr also contains means to ensure continued communication with the Bonnytoun community during the construction phase.

With respect to the wellbeing of surrounding land users during the operational phase, the following is noted:

- The proposed depot would not encroach into the Wynberg Sports grounds or the Bonnytoun informal settlement.
- The approach in terms of architecture and landscaping for the proposed development pays attention to the edges and interface with adjacent areas;
- Although traffic in the area is anticipated to change as a result of the proposed development and associated buses, these changes would be minor and would not necessitate upgrades to the local road network (Clark & Liebenberg, 2021);
- The proposed development would serve to improve safety and security on and adjacent to the site;
- The impact of noise was found to be low, such that no mitigation measures would be required (Jongens, 2021);
- The proposed development would be accompanied by two key infrastructure provisions to the Bonnytoun informal settlement community, namely a formalised realigned access road, as well as a fence partially surrounding the community to improve access to the informal settlement and safety of it.
- The proposed development would support the expansion of the IRT service to communities in need of improved accessibility and will have a significant positive impact on the communities.

9. Other/Additional Aspects (note that this has been added to the BAR template by the EAP)

a. Agricultural

A site sensitivity verification and agricultural compliance statement has been compiled for the site by Johann Lanz, referenced as "Lanz, 2021" throughout this report.

The agricultural sensitivity, as identified by the screening tool, is disputed because the screening tool does not take zoning or any urban land use or designation into account when classifying agricultural sensitivity (Lanz, 2021). Even land occupied by buildings, in the middle of a city, can still be classified as high agricultural sensitivity by the screening tool, which obviously makes no sense (Lanz, 2021). In reality, such land has zero potential for agricultural production and therefore for being high agricultural sensitivity (Lanz, 2021).

Likewise, the classification of high agricultural sensitivity in this case does not take account of the fact that the different erven on the site are zoned for a combination of Public Open Space (OS2), Public Road and Public Parking (T2), and Community 1: Utility and Public Open Space (Lanz, 2021). This zoning negates any agricultural production potential on the site (Lanz, 2021). The site cannot, therefore, be considered to be of anything but low agricultural sensitivity, in terms of the available sensitivity categories, which are: low; medium; high; and very high (Lanz, 2021). The designation of high agricultural sensitivity by the screening tool is therefore invalid because the screening tool does not take any urban land use or designation into account when classifying agricultural sensitivity (Lanz, 2021).

It is hereby confirmed that the entire site is of low sensitivity for agriculture, because of its non-agricultural zoning (Lanz, 2021). Furthermore, it is confirmed that, because the designation will effectively prevent future agricultural use of the land anyway, the proposed development cannot have an unacceptable negative impact on the agricultural production capability of the site (Lanz, 2021). Therefore, from an agricultural impact point of view, it is recommended that the development be approved (Lanz, 2021).

The entire site will be excluded from agricultural use (Lanz, 2021). Therefore, the protocol requirement of confirmation that all reasonable measures have been taken through micro-siting to avoid or minimise fragmentation and disturbance of agricultural activities, is not relevant in this case (Lanz, 2021). For the same reason, there are no Environmental Management Programme inputs required for the protection of agricultural potential on the site (Lanz, 2021).

The proposed development is considered acceptable, and the specialist recommends it for approval, with no conditions (Lanz, 2021).

Further to note, in completing the agricultural compliance statement, no assumptions have been made and there are no uncertainties or gaps in knowledge or data that are relevant to it (Lanz, 2021). No further agricultural assessment of any kind is required for this application (Lanz, 2021).

Response

Given the limited agricultural sensitivity of the site, there are no development constraints to consider in this regard. The selection of the preferred (and only) site has, therefore, avoided sensitive agricultural land.

b. Contamination

A soil contamination investigation has been carried out by SRK and is referenced as "O'Brien & Engelsman, 2020" throughout this report.

This investigation was initiated in response to the waste dumped on the site in order to determine whether the land can be considered contaminated, and to provide information to determine the procedural requirements in terms of the NEM: WA.

O'Brien & Engelsman (2020) confirm that historically, the site was used as a dump site over many decades, with more recent dumping of soil and building rubble over the western two thirds of the site, with scattered heaps of building rubble present. Soil samples were analysed for metals and metalloids, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and TPH (O'Brien & Engelsman, 2020).

The concentrations of all determinants in the recent fill disposed of at the site (i.e., upper surface layer) are all below their respective soil screening values for commercial industrial land use (proposed future use) (O'Brien & Engelsman, 2020). The concentrations of Copper (Cu) and Lead (Pb) exceed the Coper (SSV) 1 ecological threshold, indicating that the leachate generated from this material may pose an unacceptable risk to ecological receptors (O'Brien & Engelsman, 2020). The concentrations of all determinants in the waste fill disposed of at the site (i.e., historical waste body) are all below their respective soil screening values for commercial industrial land use (proposed future use) (O'Brien & Engelsman, 2020). The concentrations of Cu, Pb, Zinc (Zn) generally exceed the SSV 1 ecological threshold, while Mercury (Hg) exceeds the ecological threshold in a single sample (O'Brien & Engelsman, 2020). No volatile organic compounds were reported in the fill materials, and hence no vapour sources considered present at the site (O'Brien & Engelsman, 2020).

In terms of risk, which considers the source (S), receptor (R) and pathway (P) between them (named an "S-P-R link"), two aspects are relevant to the site and proposed development, namely the potential for construction and site workers to be affected, as well as the potential for ecological receptors (i.e., the adjacent wetlands and groundwater) to be affected (O'Brien & Engelsman, 2020). O'Brien & Engelsman (2020) confirm that no complete S-P-R linkage is identified for site workers (construction or operational phase) due to the absence of any contamination sources in the surface fill layer at the site, but that a potentially complete S-P-R linkage exists via the leaching of Cu and Pb from the surface fill to groundwater and ecological receptors. However, in this regard, the covering of the recent fill with hardstanding materials and resultant reduction in infiltration is considered sufficient to mitigate these risks (O'Brien & Engelsman, 2020).

The upper fill layer is not considered to be contaminated and does not pose an unacceptable risk to human health in an industrial / commercial land use (O'Brien & Engelsman, 2020).

Response

The nature of the proposed development (i.e., as a bus depot, which is considered a commercial/ industrial use in terms of the SSV criteria) is acceptable as all contaminants detected are below the SSV2 levels (which are levels/limits legally set in terms of the NEM: WA which consider appropriate land use relative to contaminant levels on site and are soil quality values protective of human health and eco-toxicological risk for multi-exposure pathways).

The proposed surfacing and fill required to achieve the proposed depot would also serve to "close/block" any risk pathways on site, hence the conclusion that the covering of the recent fill with hardstanding materials and resultant reduction in infiltration is considered sufficient to mitigate these risks (O'Brien & Engelsman, 2020).

There is one recommendation indicated in the soil contamination report, regarding avoidance of abstraction of groundwater, and this has been included in the specifications for all phases in EMPr.

Furthermore, as previously mentioned, the contamination assessment responds to the geotechnical conditions on site through their sampling, which including collection of soil samples from "both the more recent sandy fill and the underlying older refuse horizon" ²¹(O'Brien & Engelsman, 2020). Refer to Section G1.4 for the way the proposed development responds to groundwater, noting that measures would be included in the EMPr for contaminant detection, as the groundwater impact assessment does consider the findings of the soil contamination report.

Further sampling and testing of wetland soil have been undertaken to form a baseline, to better understand contamination risks (as instructed by the DEA&DP through the NEM: WA Part 8 Land Contamination process which is being completed separate to this

environmental application). The test results as well as comment from DEA&DP Pollutions and Chemicals Management can be found under **Appendix P**.

Some of the soil samples taken from sample pits that were directly in contact with the waste exceeded the National Norms and Standards for the Remediation of Contaminated Land and Soil Quality, 2014 ("Norms and Standards") soil screening values (SSV) SSV1 for all Land-Uses Protective of the Water Resource but were within the SSV2 for Industrial/Commercial use. Mercury, copper, lead and zinc were the only contaminants that were not within the SSV1 levels in some soil samples.

Groundwater was also sampled at strategic locations around the site and the quality analysed. Some monitoring wells or excavation pits were located within the area covered with waste, while others were positioned between the waste and the wetland; one monitoring well is situated downstream of the wetland (furthest from the waste). Due to the soil screening values that exceeded SSV1, groundwater analysis also included mercury, copper, lead and zinc.

From the groundwater samples that were taken at locations where waste had been dumped, it was evident that the waste had a slight effect on the groundwater quality and based on the SANS 241-1:2015 limits for drinking water criteria. It was concluded that the groundwater quality is not safe for drinking purposes, due to the exceedance of electric conductivity (EC), manganese (Mn) (not exceeded in soil analysis) and lead (Pb). Lead concentrations in sample MBH01 and MBH03 (both within the waste) exceeded chronic health limits. The groundwater quality at those wells that were not directly in the waste (MBH2, MBH4 and MBH5) was of higher quality. MBH2, the monitoring well furthest from the waste but closest to the M5 highway /Wetton Road, indicated that elevated zinc (Zn) levels may be intrinsic to the soil and that other sources of contamination, such as road run-off, may be responsible for the detection of gasoline range organics (GROs). This could be an indication that although present in the soil around the waste, the metal contaminants of concern seem to be mostly localised.

Wetland contamination by sewage waste was deemed to be very low to negligible. Lead and mercury concentrations were undetectable at all wetland sites. GRO and total petroleum hydrocarbons (TPH) were below detection limit. Dissolved oxygen (DO) levels were above thresholds of concern and indicate generally healthy aquatic function. However, copper concentrations were above toxicity thresholds for aquatic ecosystems as well as zinc which was above toxicity thresholds at all sampling points except WR2 and WR4. It was concluded that the elevated copper (also very low concentrations) could indicate a possible pathway between the waste and the wetland. Free ammonia, nitrates, manganese and zinc were detected in the control/background wetlands (on Kenilworth Racecourse) and in the borehole furthest away from the waste (MBH02), indicating that these contaminants may originate from other sources.

As a result of the above findings, several pre-construction and ongoing monitoring measures to be undertaken manage the risk were conditioned within the Remediation Order (refer to **Appendix P8**). These measures have been included within **Section 12** below of this report and the EMPr.

c. Noise

A Noise Impact Assessment has been carried out by Jongens Keet Associates (referenced as "Jongens, 2021" throughout this report). The assessment was carried out in terms of The South African National Standard (SANS) 10103:2008 (Jongens, 2021). In this regard, Jongens (2021) clarifies that SANS environmental noise impact assessment procedures are similar to other disciplines whereby the intensity and significance of impact is identified as Low, Medium, or High, but that the Noise Control Regulations (NCR) provide a hard line in that they stipulate a noise level criterion that, by law, may not be exceeded (Jongens, 2021). Thus, either the noise levels comply with the criterion, or they do not (Jongens, 2021). In the latter instance noise mitigation procedures must be implemented and so Jongens (2021) asserts that, in regard to noise, the NCR thereby override the relative noise assessments in the EIA process.

The only noise sensitive receptors due to bus movements within the proposed bus depot would be the Bonnytoun informal settlement adjacent to the western boundary of the proposed bus depot site. Using previously measured data (JKA, September 2017) an estimate was made of the impact of noise on the informal settlement due to bus movements close to the western boundary of the proposed bus depot site (Jongens, 2021). It was calculated that provided the number of bus movements on the trajectory closest to the western boundary did not exceed one per minute the associated noise would be compliant with the Western Cape Noise Control Regulations, 2013 (NCR) (Jongens, 2021).

Therefore, the measurement and rating of environmental noise with respect to annoyance and to speech communication and the relatively few bus movements during a full daytime and/or night-time reference time period, would result in the intensity of noise impact being **Negligible** (Jongens, 2021).

In terms of this assessment, it should be noted that it has been limited to the depot site and activities on site because although the future trunk and feeder routes originating from the Claremont Public Transport Interchange and the Wynberg Public Transport Interchange, located to the west of the study area, would extend along Wetton Road via the intersection of Rosmead Avenue with Wetton Road, the peak hour bus movements along the aforementioned roads and the associated road traffic noise would be independent of the location of the proposed Wynberg bus depot (Jongens, 2021) and unrelated to the proposed development in terms of noise impacts.

Response

The siting of the proposed depot is located in an area where there are limited sensitive noise receptors nearby and the scale of the proposed depot would result in negligible noise impacts, therefore, there are no further mitigation measures/ responses required.

d. Major Hazard Installation Risk

A Major Hazard Installation (MHI) Risk Assessment has been conducted by MHR Consultants and is referenced as "Thackwray, 2021" throughout this report. This assessment was primarily conducted in response to the need to store diesel on site for the refuelling of the

buses. The main aim of the investigation was to quantify the risks to employees and neighbours regarding the facility in Wynberg (Thackwray, 2021). The MHI Risk Assessment has been completed in accordance with the Major Hazard Installation Regulations, which is the primary law under which these types of issues are regulated.

The following key areas of potential risk were considered in Thackwray (2020):

- 2x 14m³ underground diesel tanks;
- 1x bunded road tanker offloading area;
- 2x curb side dispensers.

The assessments deal with diesel as a Class 3 dangerous substance in terms of SANS 10228:2003 (Thackwray, 2021). It should be noted that AdBlue is a water-based additive which has not been included in the MHI Risk Assessment as it is not considered flammable (Thackwray, 2021).

Thackwray (2021) also considers the surrounding land uses (i.e., Youngsfield Military Base, Village Golf Driving Range, Bonnytoun, and Wetton Road and Kenilworth Racecourse) and confirms that there are no MHIs in close proximity to the site.

No societal risks were generated as the risks associated with the proposed diesel depot is very low (Thackwray, 2021). Risks within the development limits are also considered and there are none at the office, drivers rest area or at the eastern boundary (Thackwray, 2021).

Thackwray (2021) concludes that the modelled effects of the proposed diesel tanks and associated risks do not extend past the depot limits and do not reach any sensitive areas. Therefore, the risks posed by the installation were found to be acceptable for the area in which it will be located (Thackwray, 2021).

Response

Thackwray (2021) confirms that the following containment and safety systems have been incorporated in the design of the diesel depot.

- The diesel tanks are located underground;
- There are fire extinguishers at the installation;
- There are fire hose reels within 30m of the bund and a fire hydrant within a 100m.

The context of the site, in terms of site selection, is also appropriate in this regard as there are no conflicting risks/MHI installations nearby.

The risk reduction measures included in the MHI Risk Assessment are also included in the specifications of the EMPr for design and planning as well as the operational phase.

SECTION H: ALTERNATIVES, METHODOLOGY AND ASSESSMENT OF ALTERNATIVES

1. Details of the alternatives identified and considered.

| | |
|--|---|
| 1.1. | Property and site alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts. |
| Provide a description of the preferred property and site alternative. | |
| The preferred properties for the site location are Erf 91191, Erf 90470, and Erf 90475-RE, Wynberg and the preferred site extent is that indicated in Figure c . | |
| <u>Note that an envelope/development footprint has been applied for as the exact plans may be revised somewhat during the detail design phase, which are still yet finalised. However, no changes to the development footprint, or scope of works and/or operation of the development is proposed.</u> | |
| Provide a description of any other property and site alternatives investigated. | |
| No alternative sites have been formally assessed, however there were three other sites investigated by the City of Cape Town in order to determine the best fit, which eventually pointed to the proposed site/property location. | |

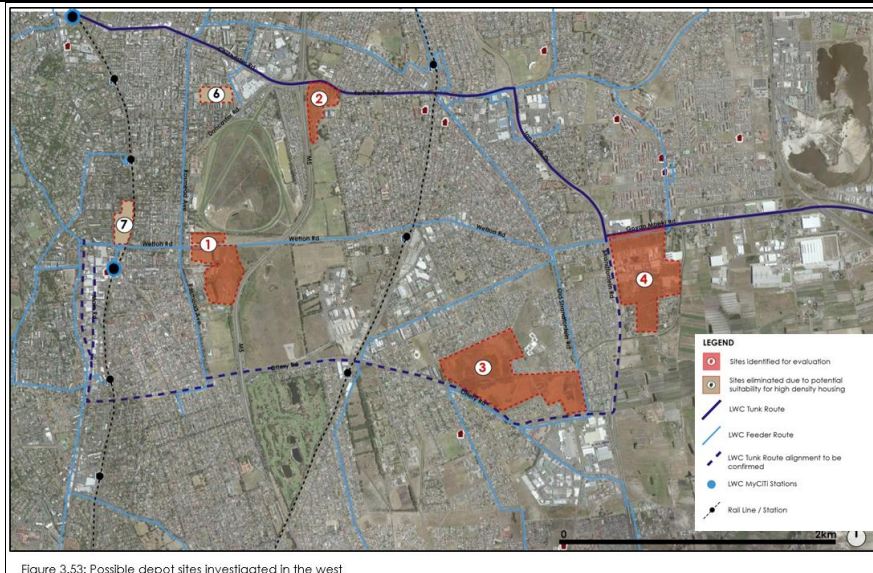


Figure 3.53: Possible depot sites investigated in the west

Figure y Sites/ Properties Investigated (source: City of Cape Town: Transport Directorate, 2020)

Based on the high-level analysis undertaken as part of the GAPP investigation, Site 1: Wetton Road, Kenilworth was identified as the preferred site for a depot to serve the Phase 2a operations (City of Cape Town: Transport Directorate, 2020). Site 3: Ottery Road, Ottery was the least favourable site as it performed poorly from a dead mileage perspective and it appeared there may be significant environmental constraint (City of Cape Town: Transport Directorate, 2020).

Once the depot consultants had been appointed, SV Architects undertook a scoping study of the site to verify its suitability for the intended development purposes (refer to Annexure B of the Site Selection Report in **Appendix S**) where after a formal land reservation application was made and approved, and finally, supported by all City Departments, Sub council and the Director of Property Management (refer to **Appendix Q**).

The following are key selection criteria:

- Location in terms of proximity of the site in relation to the dead mileage convergence zone;
- Existing use of site in terms of preference for vacant or unused sites;
- Size of site in terms of being appropriate to accommodate the needs/ requirements of a depot; and
- Ownership in terms of the land being owned by the City or in public ownership.

Furthermore, the assessment of each site was subjected to the alignment with the following criteria (Appendix A of City of Cape Town: Transport Directorate, 2020):

- Technical/ operational alignment (i.e., suitability of a site to function as a depot and/or staging area);
- Legislative alignment (i.e., alignment with policy and procedural planning such as spatial planning frameworks, heritage status and approvals needed, Environmental status and approvals needed, and other potential end-uses as earmarked by the City of Cape Town); and
- Contextual fit (spatial considerations such as uses around the site, extent to which it may be embedded in the urban fabric, potential for sharing or clustering of other public facilities, and best use that does not contradict other high-priority needs).

In terms of **technical alignment**, the following criteria have been indicated in City of Cape Town: Transport Directorate (2020) as key:

- Proximity to the MyCiti network and capacity to reduce dead mileage.
- Ability to secure the site.
- Suitability of the surrounding road network to accommodate large busses (road width/class/intersection spacing /accommodation of bus turning circles/volume of the busses etc.
- Existing alternate access point to create an emergency exit route on a different road from the main entrance.
- Compatibility of available space and its configuration to undertake staging/ depot functions /accommodate busses turning circles.
- Site gradient: the site ideally needs to be flat otherwise costs will be incurred to level it.
- Readiness of site to function as a staging or depot site. Considerations include whether procedural planning processes need to be undertaken, if the site needs to be purchased or negotiations with other City departments need to be completed, if existing tenants/ squatters need to be relocated and the extent to which the site needs to be altered including the demolition of structures or flattening of the site.

Figure z demonstrates the measurement of depot location relative to the trunk end points (City of Cape Town: Transport Directorate, 2020). Thick black circles and clusters of overlapping lines indicate preferred depot site location to limit dead mileage (City of Cape Town: Transport Directorate, 2020). Sites which fell outside these areas, were omitted due to the high cost which would be incurred should we depot the buses at such remote locations (City of Cape Town: Transport Directorate, 2020).

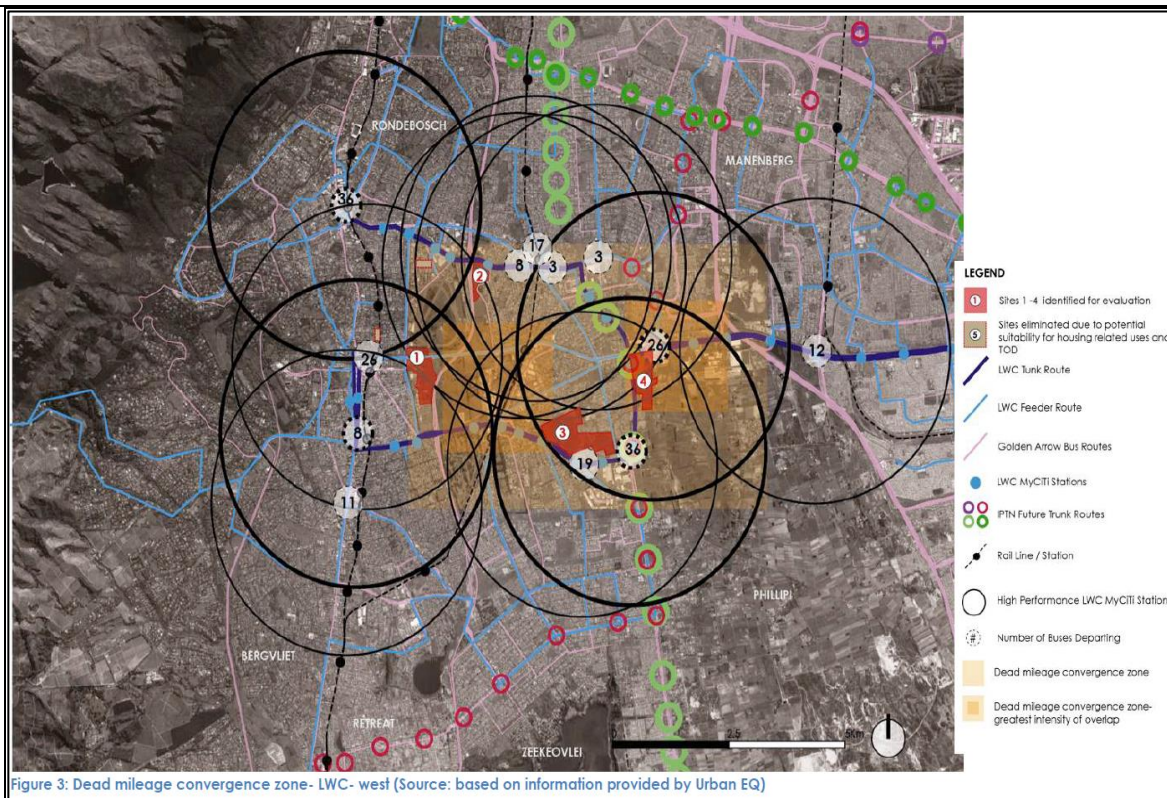


Figure 2 Dead Mileage convergence zone (source: City of Cape Town: Transport Directorate, 2020)

In terms of **legislative alignment**, the following criteria have been indicated in City of Cape Town: Transport Directorate (2020) as key:

- Alignment with applicable District Plan.
- Zoning compatibility.
- Heritage status.
- Environmental status and if authorisations are required to develop the site. Ideally the site should not be located on an environmentally sensitive area including a floodplain, have biodiversity status or be part of an ecological corridor.
- Locations that contain wetlands should also be avoided as obtaining environmental authorisations to develop on wetlands can be lengthy (this information is to be confirmed by TCT).
- Not identified or reserved by other City departments for alternative uses including for Housing projects; Mayoral Urban Renewal Programme (MURP); TOD game-changer etc.

In terms of **contextual fit**, the following criteria have been indicated in City of Cape Town: Transport Directorate (2020) as key:

- Best use of the site- ensuring that other high priority needs such as 'TOD' are not negatively impacted upon by developing the site for MyCiti support facilities;
- Compatible fit and alignment with surrounding and proposed land uses around site;
- Ability to be embedded within the urban fabric to limit visual intrusion and improve security (location/ position of facility on the site- not on a street edge)
- Potential for sharing or clustering with other existing or proposed public facilities (located adjacent to other/ proposed existing public uses adjacent or near site)
- accommodating CCT utility services (This information is to be confirmed by TCT)

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

A summary of each site considered against various criteria is provided in **Table 15**.

Table 15. Summary of Sites Considered and Performance against criteria (adapted from City of Cape Town Transport Directorate, 2020)

| Site | Transport Parameters/ Considerations | Policy and Procedural Planning | Spatial Considerations/ Contextual fit | Environmental and heritage screening |
|---|---|--|---|---|
| Wetton Road, Kenilworth Refer to Figure aa | The proposed site is located between 820m – 1.2km, depending on the route taken, from the Wynberg PTI and approximately 3.9km from the Claremont PTI. There are two proposed access points to the site, one off Rosmead Avenue and another off Wetton Road. Signalisation of the access | Using the proposed site as a depot is acceptably aligned with the district plan and the zoning compatibility is also acceptable. | The analysis found that the use of this site for a bus depot would provide a good contextual fit with the immediate surrounding land uses, which include multiple City facilities and depots for Waste and Electricity. | The City's ERM department have advised that Environmental Authorisation may be required due to the presence of the wetland on the site and has recommended that an applicability checklist should be submitted to DEADP. It has however, subsequently become clear, through specialist baseline assessment, |

| | | | | |
|---|---|--|---|--|
| | points has been confirmed possible. | | | that there are definitely environmental sensitivities associated with the site from a freshwater perspective and a Basic Assessment process to apply for Environmental Authorisation is currently underway. In addition, ERM has indicated that a Notification of Intent to Develop (NID) is required (this has taken place). |
| Chukker, Kenwyn Refer to Figure bb | This site is located approximately 3.6km from the Wynberg PTI and 3.8km from the Claremont PTI. Access to the site is off Chukker Road, a class 5 residential street, which is not ideal for significant bus volumes. Currently Chukker Road experiences congestion during the peak periods. | The analysis undertaken by GAPP shows that there is acceptable alignment with the District Plan in terms of using the proposed site for depot operations. | The site was rated poorly in terms of contextual fit as the site is located in a predominantly residential area and currently functions as a green, recreational space. The unusual shape and limited size were also determined to be insufficient and unsuitable for depot usage and bus turning movements. | This site forms part of a significant greenbelt. A wetland was identified through a desktop study in the northern portion of the site. In addition, a canal crosses the site. The City's ERM department advise that Environmental Authorisation from DEADP will be required should the wetland be confirmed and if development is to occur on the wetland. Similarly, a Water Use Licence Application (WULA) may be required. From a Heritage perspective, a Notice of Intent to Develop (NID) is required. |
| Ottery Road, Ottery Refer to Figure cc | The site(s) are located 5.3km – 6.0km from the Wynberg PTI, depending on which route is followed, and 8.9km from Claremont PTI. This site fares worse than sites 1 and 2 in terms of dead mileage. Access to the site is possible from both Woodlands Road to the west of the site and Old Strandfontein Road to the east of the site. Due to the lower order nature of Woodlands Road (Class 5) it would be more appropriate for the primary access to be taken of Old Strandfontein Road. This would require a link to be constructed between Old Strandfontein Road and the site. The access spacing on Old Strandfontein Road does not allow for the access to be signalised. | The site is earmarked for new urban infill in the District Plan and therefore using the site as a depot location is not well aligned with the District Plan. | The GAPP investigation found that the site is acceptable in terms of contextual fit with the surrounding land uses, however this was not supported by the transport planners as the area is primarily residential and the sites are small and poorly suited for a min 5ha depot site. | The City's ERM department have indicated that the wetlands located on the site are considered as functional wetlands by the Department of Water and Sanitation (DWS). Further, ERM have indicated that Cape Flats Sands Fynbos is located on the site and that this type of Fynbos is listed as a critically endangered vegetation type. Environmental Authorisation and WULA will be required as would a Notice of Intent to Develop. Further information can be found in the attached screening report. From an environmental impact perspective this site seems to present the most risk and may require significant mitigation measures. |
| Springfield Road Refer to Figure dd | This site is located 5.7km from Wynberg PTI, via Wetton Road and 7.5km from Claremont PTI. Access to the sites is off Springfield Road, a class 5 residential local collector / distributor, and therefore not suitable for large bus volumes. Although, the surrounding sites are not developed. Currently access to Springfield Road is via the Springfield / Govan Mbeki / Hanover Park Avenue intersection. This is a key intersection in the Phase 2a corridor and in the wider Integrated Public Transport Network (IPTN) plan, with | This site is rated highly from a policy perspective, with the site being earmarked for general industrial use. | The GAPP analysis shows that the site performs well for this criterion as a depot would be an appropriate land use within the context. The transport planners have however identified many constraining factors including the inability to accommodate the necessary escape exit. The road is also unsuitable for high bus traffic volumes. | The desktop study revealed a wetland located on the site. The City's ERM have advised that Environmental Authorisation and a WULA may be required should the wetland be confirmed and if development is intended on the wetland. From a Heritage perspective a Notice of Intent to Develop is required. |

Hanover Park Avenue leading to the Hanover Park PTI. It is therefore not desirable to add large bus volumes to this intersection.

Accessing Springfield Road via Strandfontein Road could be possible but that would require a west – east link to be built. From a transport perspective, this site is not preferred.



Figure aa Wetton Road, Kenilworth Site



Figure bb Chukker, Kenwyn Site

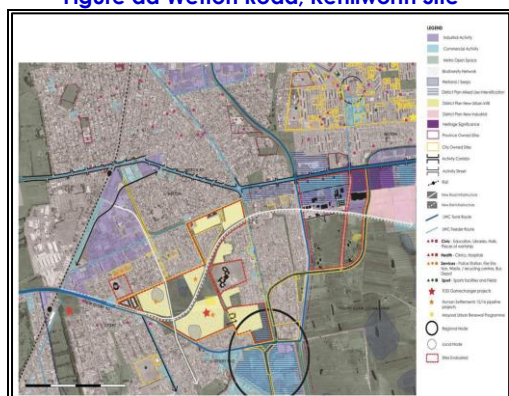


Figure cc Ottery Road, Ottery



Figure dd Springfield Road (Opposite Hanover Park Avenue)

Overall, the sites were ranked as indicated in **Table 16**.

Table 16 Summary Matrix of Sites Considered, in order of preference (source: City of Cape Town Transport Directorate, 2020)

| | | |
|---|-------------------------------|--|
| 1 | Wetton Road / Kenilworth | Good contextual fit and acceptable operational and legislative alignment |
| 2 | Chucker Road / Kenwyn | Acceptable legislative alignment but poor contextual fit and operational alignment, and subsequently reserved for an educational facility. |
| 3 | Ottery Road/Ottery | Poor contextual and operational fit, and significant environmental issues. |
| 4 | Springfield Road/Hanover Park | The site access is unsuitable for high bus volumes; emergency exit cannot be accommodated. |

The proposed development site (Site 1) was found, through the above contextual analysis, to be the most appropriate site in terms of its location in the western segment of the route and the intended bus stops to be associated with this, as well as the size, existing use and owner ship needed for the City of Cape Town to develop a bus depot thereon (Appendix A of City of Cape Town: Transport Directorate, 2020).

In terms of the operational alignment, the site is well located in terms of its proximity to an existing public transport network and thus avoiding dead mileage given that it is located adjacent to existing bus services (i.e., Golden Arrow Bus Service), as well as being located 1.5km and 3km away from planned future MyCiTi high-performing stations. It is deemed acceptable in terms of providing security for the site in that it can be setback from Rosmead avenue as well as set back from Wetton Road, but double perimeter fenced all around. The surrounding road network can also accommodate the depot in terms of access (noting that the initial high-level site selection considered access off of Rosmead Avenue given that there was sufficient road reserve for future duelling, however following some design of the site layout, the proposed access to the facility would be located off Wetton Road, and this has been confirmed as acceptable in the TIA in Appendix G(e)) as well as the road geometry of the existing surrounding road network for use

by MyCiTi Buses. The potential downfall of the site in terms of operational/ technical requirements was the obstacles to providing for an emergency access road, however the proposed depot layout has addressed this matter through proposing an emergency exit through the Municipal solid waste facility. The size of the site to accommodate the necessary function of a depot is also found to be acceptable and the general readiness of the site to be developed as a depot was also considered acceptable, noting that issues such as the wetlands on site and access would need to be resolved. A positive aspect in this regard is that the gradient of the site was acceptable. Note also that geotechnical assessment has confirmed the state of founding conditions to be acceptable with removal of some of the waste historically dumped, compaction and infilling (Brown & Engelsman, 2020), noting that some settling may still occur.

Overall alignment with spatial and biodiversity planning noted that, at the time (which is when the District Plans were still in use) the site is located in a metro wide ecological corridor and that there is biodiversity status and mixed-use infill on the edges. The zoning was also noted, and it was indicated that rezoning would be needed for the components zoned as POS, but that the other portions of the erf zoned as Community 1: Utility would be aligned with the proposed depot. These two aspects were considered acceptable, but it should be noted that they must be resolved through this Basic Assessment process, as well as a separate land use application process. The biodiversity of the site and potential impacts are assessed through this process and detailed throughout this report. The site was also considered to hold no heritage sensitivity (which has been confirmed through a NID and HWC response- refer to **Appendix E1**) and the environmental status was indicated as being a Core 1: maintain natural ecosystem and that the wetlands on site would need to be ground-truthed and an EIA process would be needed. As mentioned, this Basic Assessment process unpacks these issues and overall, there are a combination of positive and negative impacts anticipated, but they can be mitigated to acceptable limits. The site was also found to be appropriate in that it was not reserved by any other City of Cape Town departments for any other use and is now reserved for the proposed bus depot (refer to **Appendix Q**).

The contextual alignment of the site was ranked as "good" for all aspects considered which included the best use of the site in terms of reinforcing an established utility node and compatible with the neighbouring solid waste facility and Golden Arrow facility, as well as being located near an existing cluster of utility services (i.e... comprising the Golden Arrow staging facility, fire station, and solid waste facility) and that it would not have a visual impact on existing residential areas along Rosmead Avenue. It was also found that the proposed depot could be embedded appropriately in the existing urban fabric given that there would be limited intrusion from the Rosmead Avenue Street edge as it would be behind existing development along Rosmead Avenue and noting that it could be clustered with existing public uses near or adjacent to the site). It was also noted that there are no sensitive residential areas or economic centres nearby, but it should be noted that this study did not mention the Bonnytoun informal settlement adjacent to the site. In this regard, it should be noted that the proposed site limits have been informed by a site visit and survey and have been intentionally devised to avoid any dwellings in the settlement. Therefore, the proposed depot would be adjacent to the Bonnytoun informal settlement and would not be within it.

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

Refer above, as well as to **Section H 1.3** below.

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

The proposed development forms part of a much wider IRT system that the City of Cape Town is rolling out throughout the City. This particular project triggers the need for Environmental Authorisation.

No property/site alternatives have been formally assessed in this process because of the four sites that were considered, the proposed site/property is aligned with most of the essential requirements for a depot. This was concluded following consideration of three other sites/properties, which were scoped out prior to the initiation of this Basic Assessment process.

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

Refer to **Section J 1.3** and to **Table 17** and **Table 18** for more detail, noting that these all apply to the same "site".

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

Provide a description of the preferred activity alternative.

The preferred activity alternative comprises the proposed provision of a bus depot to support the MyCiTi network/infrastructure.

Provide a description of any other activity alternatives investigated.

No other activity alternatives have been considered.

Provide a motivation for the preferred activity alternative.

The Applicant is mandated to provide transport networks for the City of Cape Town and would not propose developments beyond this scope. The Applicant wishes to develop to IRT infrastructure throughout the City of Cape Town and, therefore, no activity alternatives were (or could have been) considered.

Provide a detailed motivation if no activity alternatives exist.

The Applicant is mandated to provide transport networks for the City of Cape Town and would not propose developments beyond this scope. The Applicant wishes to develop to IRT infrastructure throughout the City of Cape Town and, therefore, no activity alternatives were (or could have been) considered.

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

Not Applicable.

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

Provide a description of the preferred design or layout alternative.

There are two layout/footprint alternatives (also referred to as "site footprint" / "development footprint" alternatives) assessed as part of this Basic Assessment process, along with the no-go alternative. These relate to the proposed extent of the development within the chosen property/site.

Alternative 2 is the **preferred** footprint alternative which has been refined in response to detailed specialist assessments and mapping of environmental sensitivities on the ground which provides as much room as possible for optimal depot design (i.e., as explained above, there is a minimum size required in order for the depot to function optimally). Note that a development footprint is applied for, with an indicative layout (as per **Figure c**) and so the specific design within that footprint would be resolved during detail design.

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

Alternative 1 comprises a larger development footprint for the proposed depot, which would be ideal from an engineering/architectural standpoint, but that would encroach into the less degraded wetlands and medium SEI faunal habitat, which was not preferred by the relevant biophysical specialists. This led to a refinement of the proposed development footprint, namely, Alternative 2, which is preferred.



Figure ee Alternative 1 Site Plan (source: SVA, "Wetton Road MyCiti Bus Facility", Dwg No. IRT-SVA-A-WSS-00-DR-11-100, Rev C, 2019-04-06)

Refer to **Appendix B1** for plans of the two alternatives.

Provide a motivation for the preferred design or layout alternative.

Alternative 2 (refer to **Figure b**) is the preferred alternative and is narrower than Alternative 1, in order to remain out of the less degraded wetland and medium SEI faunal habitat area. The preferred layout will not impact on the less degraded wetland and will allow for a slightly larger corridor for faunal movements including that of the WLT thus the preferred layout is favoured over the alternative layout (Jackson & Martin, 2021). Although both alternatives are acceptable from a freshwater (Steytler & Mugabe, 2021) and botanical (NCC, 2021) perspective, Alternative 2 is most preferred from a freshwater perspective (Steytler & Mugabe, 2021) and the proposed development would be acceptable in this regard, with implementation of mitigation measures. Furthermore, the preferred footprint alternative is also comparatively narrower in the south-west corner in order to ensure that there is no encroachment into the Bonnytown informal settlement. Refer to

Figure ff for a map indicating the different footprint alternatives and environmental sensitivities.

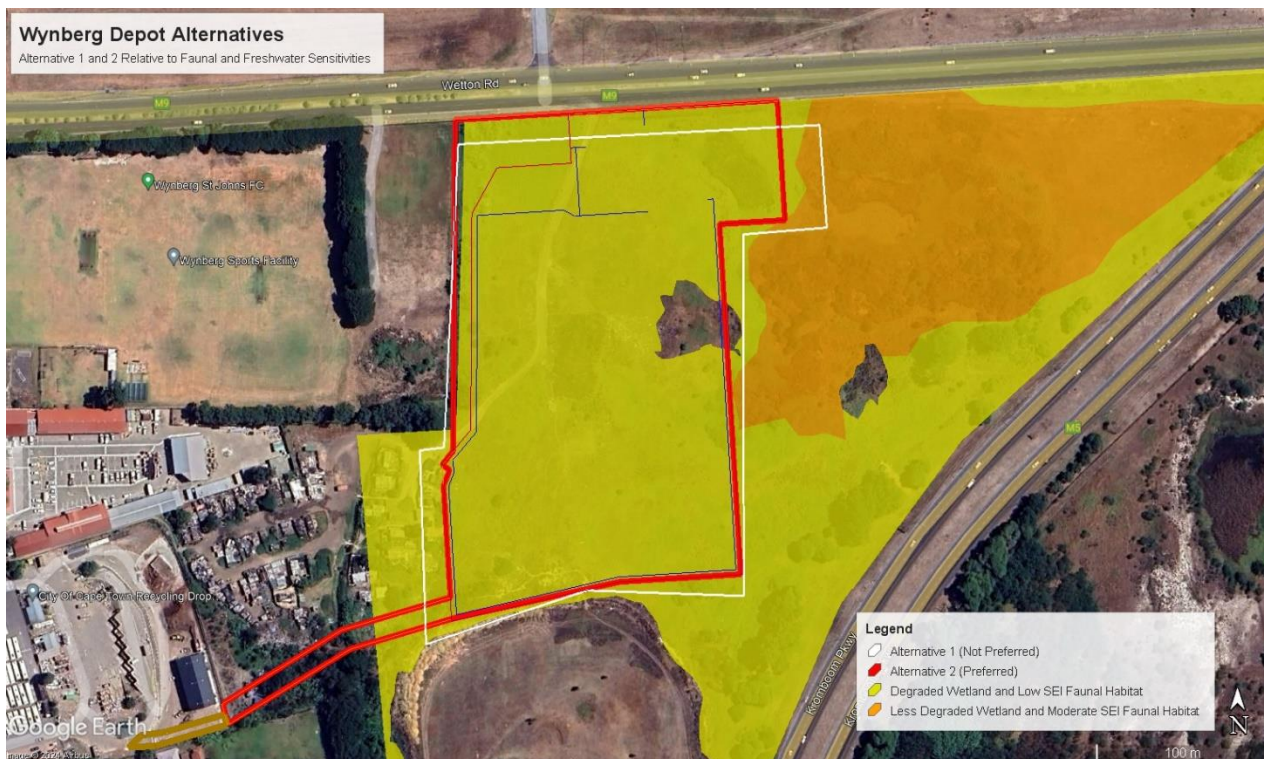


Figure ff Wynberg Depot Alternatives (created by the EAP using Google Earth Pro with spatial layers from SVA, Jackson & Martin (2021) and Steytler & Mugabe (2021))

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

This is not applicable for the development footprint alternatives discussed above; however, it is worth noting that there were other design alternatives in terms of stormwater management and land/ground preparation/stabilisation that have been considered, but scoped out (and therefore, not further assessed in this report).

Stormwater options considered in Saunders et al (2021) are summarised below:

Scenario 1

A total area of 12 113 m² of permeable paving would be provided within the bus parking bay areas. Sub-areas of permeable paving would be linked to either other permeable paving areas, or to an underground stormwater pipe system of 2No. Off. 375 mm diameter concrete stormwater pipes which would form a spine along the proposed surfaced roadway, which would then be routed between the proposed driver shelter and the Administration block, before discharging into the proposed detention pond. The 2No. Off. 375 mm diameter concrete stormwater pipe configuration has been chosen rather than a single, larger pipe diameter due to likely cover issues. It is considered likely that the pipeline would require concrete encasing for the majority of its length to ensure that the axle loads do not damage the pipelines. The detention pond would be constructed on a raised platform which would form part of the bulk earthworks to the Wynberg Depot. The raised platform is required to allow the detention pond's outlet pipe to discharge above natural ground level. The detention pond would cover an area of approximately 870 m² (inclusive of a proposed 1m gabion edging). It would have an effective maximum storage area of 750 m² and be constructed with 1 in 8 side slopes for the majority of its internal shaping to allow suitable aquatic growth to be planted and maintained and have a water quality "wet-pool" provided below detention storage invert level. The detention pond, for Local Stormwater Management Planning purposes, is served by a single 450 mm diameter stormwater pipe. Should, during the detailed design stage, it be found that the configuration cannot meet all pre-development targets (i.e., 1 in 1 year, 1 in 10 year and 1 in 50-year return periods), an outlet box would be designed to suitably attenuation these peak flows.

In terms of the modelling results for this scenario, it can be seen that the permeable paving can generally store up to and including the 1 in 50-year return period, with only one area not able to provide storage up to and including the 1 in 50-year return period. All permeable paving areas can provide storage for the 1 in ½ year return period, which therefore meets the water quality parameters for their contributing catchments. The detention pond cannot fully attenuate for the 1 in 1 year return period, as the estimated runoff for the Existing Development (ED) scenario is 0 m³/s. The peak flow discharging downstream is however negligible and is therefore considered acceptable. In summary:

- The 1 in 10-year peak flow is, for all intents and purposes, reduced to the Existing Development peak flows and is considered acceptable.
- The 1 in 50-year return period Future Development (FD) peak flow is reduced to below the ED scenario target.
- The permeable paving located upstream provides a significant reduction in peak flows entering the detention pond (i.e., Post Development Peak flows are significantly reduced from the "free flow" calibration scenario and the peak inflows into the detention pond. This in turn reduces estimated water depths within the detention pond, which is recommended from a health and safety perspective.

In terms of the water quality modelling results for this scenario, it can be seen that the proposed water quality measures are acceptable, with TSS reduction being marginally insufficient and TP reduction being exceeded. It is noted that, as per the "Minimum

Standards for Roads and Stormwater Design, Version 2", dated July 2014 and the "Stormwater Management Planning and Design Guidelines for New Developments" (2002), that "wet pool" depths should be 1.2m to 1.5m in depth. From a purely stormwater management perspective (i.e., meeting of water quantity and water quality targets), this is considered acceptable. From experience, however, it is considered to be risky unless it can be guaranteed that access to the detention pond cannot occur, and that theft of the provided fencing cannot take place.

Scenario 2

Scenario 2 would be similar to Scenario 1 in terms of the proposed permeable paving being provided for both water quantity and water quality amelioration. However, the detention pond with the "wet pool" for Scenario 1 is proposed to be on a raised platform. This would require the layer works / pond linings etc. to be designed to accommodate this. Scenario 2 therefore considers the removal of the detention pond and the raised platform it would have been constructed on and provides a "constructed wetland" within the existing wetland / depression storage to provide treatment for the two catchments not discharging into the permeable paving, as well as additional treatment for the areas already treated by the permeable paving.

In terms of the modelling results for this scenario, it can be seen that the permeable paving, on its own, cannot provide sufficient attenuation for all return periods. There is limited space to provide additional permeable paving within the Wynberg Depot over and above what has already been proposed, therefore increasing storage on site is not considered feasible. The majority of the additional peak flows emanate from the surface runoff estimated to occur from permeable paving junction JU-IRT-DEP_WYNBERG-31, which commands a reasonably large catchment, and which has limited area and volume due to the proposed SDP. Although the 1 in 50-year return period would be considered acceptable from a peak flow reduction perspective, it is not considered acceptable for the 1 in 10 years. **This scenario therefore is not suitable from a water quantity perspective; therefore, this option is not recommended as has not been considered further. This also means that no water quality analysis is necessary is one of the primary, non-negotiable criteria cannot be met.**

Scenario 3

- A third scenario was considered, namely:
- The removal of all permeable paving,
- The provision of a conventional underground stormwater drainage system, to convey up to and including the 1 in 5 year return period.
- The provision of a single detention pond which would cater for both water quantity and quality amelioration.

The detention pond design would be different than that of scenario 1, and differs as follows:

- The total pond depth increased from 1.5 m to 2 m.
- The "wet-pool" depth increased from 0.5 m to 1.0 m in depth.
- The spillway lifted to 1.85 m above invert level (i.e., 150 mm below detention pond crest) and the spillway depth reduced to 150 mm.

In terms of the modelling results for this scenario, the hydraulic performance would be similar to that of Scenario 1 in terms of meeting Existing Development scenario targets. Although the 1 in 1 year and 1 in 10-year return periods slightly exceed ED peak flow targets, by providing an outlet box the 1 in 1 year return period peak outflow, although as per Scenario 1 can never meet a 0 m³/s, can be reduced further, and the 1 in 10 years shall be able to meet the Existing Development peak flow target.

However, from a health and safety perspective, the water depths are considered to be high, with a depth of almost 2 m during a 1 in 50-year storm event. Although the detention storage portion (from 1 m above invert level to 1.8 m above invert level) would pass the majority of the peak flow and associated volume within 3 hours, the 1 m "wet pool" provided for water quality is considered excessive and poses a drowning risk.

In terms of water quality provisions, the increased depth of the "wet pool" to 1 m, which is considered to be the absolute maximum depth from a safety perspective, provides a storage volume of 262 m³. As above the commentary regarding minimum "wet pool" depths versus safety is relevant. The estimated 1 in ½ year inflow is 331 m³, therefore there is insufficient capacity in the "wet pool" to provide the full water quality volume.

Therefore, from a water quality perspective, Scenario 3 does not achieve the required targets.

Therefore, Scenarios 2 and 3 have been scoped out and only Scenario 1 included for assessment (and in the project description and stormwater management plan) because it can provide both water quality and quantity containment and treatment services as well as provide for a safe wet pool when it comes to depth.

From a **ground preparation** perspective, the geotechnical report recommends a few ground preparation options, noting that only one of those need to be considered and so the chosen one is included in the EMPr and is part of the project scope. The other options that are indicated in the groundwater report, and excluded from the EMPr, include the following:

- **Develop site as is with nominal surface layer works:** This is not a recommended option as it is likely that unacceptable levels of settlement will occur over time, which will require constant maintenance.
- **Remove all fill and refuse and replace with suitable engineered fill:** It is not an option to remove the fill and refuse and then build up the platform with suitable engineered fill, as a very strong seepage zone is present within the refuse layer. Dewatering of the site is considered impractical and would be extremely expensive. A pioneer layer of rock fill would also be required to be placed at the base of the excavation as the soils will be saturated and a firm base would be required to commence compacting imported engineered layers.
- **Dynamic Compaction:** Dynamic Compaction could be considered to improve the consistency of the fill/waste materials that characterise the site geotechnical profile. Dynamic compaction will be effective in compacting the fill material

throughout the profile. A specialist contractor would need to be consulted to further evaluate the suitability of employing dynamic compaction at the site and to evaluate the likely cost (normally an expensive operation).

- **Rapid Impact Compaction (RIC):** RIC is a ground improvement technique using a hydraulic hammer fitted to a large track excavator which repeatedly strikes an impact plate at a rate of 40 – 80 blows per minute. Densification can apparently be achieved up to a depth of 6 m. Once compacted additional structural pavement layers would need to be imported. RIC equipment is available in Cape Town and a specialist contractor would need to be consulted to assess the suitability of the technique for the site. Cost are likely to be less than for conventional Dynamic Compaction.

Given the above constraints, the hybrid of partial removal of waste, importing fill and compacting the site and then incorporating the various layer works is opted for as the best approach. This approach is also supported by DEA:DP: Waste Management.

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

Refer to **Section J 1.3** and to **Table 17** and **Table 18** for more detail.

| | |
|------|--|
| 1.4. | Technology alternatives (e.g., to reduce resource demand and increase resource use efficiency) to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts. |
|------|--|

Provide a description of the preferred technology alternative:

The preferred technology applicable to roadways, surfacing and landscaping are as described in the project description.

Provide a description of any other technology alternatives investigated.

No technology alternatives have been formally assessed, however many have been considered in design.

Provide a motivation for the preferred technology alternative.

Not Applicable.

Provide a detailed motivation if no alternatives exist.

Various technologies, design principles and infrastructure choices were considered in the proposed design with a view to facilitating a development that would promote the efficient use of water and energy resources as well as to provide suitable protection from the wind. Such technologies and design principles have been included in the development proposal and as such were not considered as separate alternatives. For example, a variety of surface finishes were considered to determine which was most ideal (environmentally sensitive) for treatment of surface water (refer to 1.3 above for more information on stormwater).

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

Not Applicable.

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

Provide a description of the preferred operational alternative.

The preferred operation is for the depot to be used as a depot, and it needs to include a minimum suite of components, as per the project description.

Provide a description of any other operational alternatives investigated.

Not Applicable.

Provide a motivation for the preferred operational alternative.

Not Applicable, only one operational alternative is considered.

Provide a detailed motivation if no alternatives exist.

An IRT depot provides for little flexibility in terms of operational aspects as there are very specific requirements in terms of bus parking, washing, refuelling, maintenance, and staging. One operational alternative with respect to the wash bays is considered although not assessed in detail. This alternative pertains to the use of potable water as opposed to recycling water. Given the water crisis faced by the Western Cape as well as general efforts to minimise inefficiencies, the recycling of water is a generally preferred approach and will be considered more thoroughly in the detail design. It would be employed over the use of potable water if it is found to be viable and technically feasible. No further operational alternatives were therefore considered as each proposed depot houses the minimum infrastructure required to operate effectively and efficiently. Note also that, given the contamination on site and significant efforts required for rehabilitation (NCC, 2021), the use of the site for other uses would be limited.

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

Not Applicable.

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

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

The no-go alternative refers to the no development option where the site would remain as it is and has been in the past and no IRT depot would be constructed thereon.

Note that this alternative is not preferable from the Applicant's perspective in terms of their mandate to provide transport infrastructure and a MyCiti network, as the proposed development forms a key and very necessary piece of infrastructure required as part of a much larger system, planned for in terms of spatial planning, which would be significantly adversely affected should the proposed development not go ahead, particularly given the substantial specifications applicable to the selection of an ideal site for a bus depot and the limited appropriate sites available for this within the Southern Suburbs (refer to **Section H 1.1.** above for more detail in this regard). There would also be an opportunity cost in terms of provision of accessibility and socio-economic opportunity and improvements from a safety and security perspective to the local communities and the City of Cape Town would be able to achieve the desired connectivity via this route from a spatial perspective, as planned and indicated in the MSDF.

It is also not without negative impacts from an environmental perspective. From a botanical point-of-view, the, 'No-go' option would result in the *status quo* largely remaining with no botanical benefit or further loss from the site (NCC, 2021). If anything, further deterioration is likely (NCC, 2021) and this is indicated as low (-) significance.

For freshwater aspects, should no development take place, open public access to the two depression wetland units means that solid waste dumping and exposure to fire is likely to continue for the foreseeable future (Steytler & Mugabe, 2021). Also, the proliferation of invasive alien species including kikuyu grass and invasive alien Acacia spp. means that the current trajectory of degradation of the wetlands is likely to continue without any management intervention by the landowner (there has been no indication to date of this occurring) (Steytler & Mugabe, 2021). Accordingly, the 'No Go' scenario has been assessed as being associated with a MEDIUM (-ve) impact significance (Steytler & Mugabe, 2021).

From a faunal perspective, In terms of the no-go alternative, the project area will continue to degrade and what little functionality the less degraded wetland habitat has, may be lost and is unlikely to recover without assistance and maintenance, with the impact being low (-) (Jackson & Martin, 2021).

In terms of transport/traffic, MHI risk and noise impact, no-go would mean no impact (or in the case of traffic, continued acceptable levels of service), but impacts are minimal and so these issues would not preclude development of the proposed depot on site.

In terms of groundwater impact, the no-go alternative would have no groundwater impacts, other than continued leaching of contaminants from the existing waste body (which is not presently a risk to people because the site is unused). The contamination does, however, provide a potentially complete S-P-R linkage via the leaching of Cu and Pb from the surface fill to groundwater and ecological receptors (O'Brien & Engelsman, 2020) and the no-go alternative would forego the positive freshwater and botanical impacts identified in this regard in terms of improvements to water quality and reduced leachate.

Other aspects such as stormwater and geotechnical aspects would not change with the no-go alternative, but they can be adequately addressed through the proposed development such that related impacts would be neutral. There is also the threat of further land invasion, which the City considers a high risk due to the existing informal settlement adjacent to the site.

In conclusion, the no-go alternative is not preferred as it in itself holds negative impacts from an ecological perspective which are largely similar to the proposed development (except for the medium negative faunal impact associated with the reduction in WLT corridor and low to medium negative groundwater impacts) and so the conditions on site do not preclude development of the proposed depot as indicated in the preferred alternative, with implementation of mitigation as these impacts can be mitigated to acceptable levels (noting that the Medium negative faunal impact is acceptable in terms of the SEI for the SCC of the site). There are positive socio-economic impacts that would be foregone and the provision of the MyCiti services would be hampered.

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

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

Preferred Alternative Description

The preferred alternative is described in **Section B4.4** of this report, which explains that the proposed development is for a bus depot, within the limits of the development footprint Alternative 2, noting that the proposed site plan is depicted in **Figure b** and the comparative limits of both footprints are indicated in **Figure ff**.

To summarise, the preferred alternative comprises Layout Alternative 2 of a bus depot (refer to **Figure c**) which would provide staging facilities for approximately 202 busses (noting that there would be capacity for up to ~202 day time staging and for up to ~61 overnight staging busses). The detailed design of the proposed depot would still be determined, but there would be basic components as follows:

- Re-alignment of the Bonnytown access road to the west of the proposed depot.
- Refueling area (2 x underground diesel storage tank with capacity of 14m³ each) which would include a refueling office and an additional AdBlue Store area (to hold an approximately 280 litre tank- i.e., 1% of fuel storage capacity);
- Wash bay (manual wash only), including support buildings (potentially with automated wash bays as well as deep clean wash bays and all water used in the wash bay would be recycled);
- Parking area (staff and visitors);
- Workshops (where vehicle maintenance and repairs would occur);
- Possible spray booth with the following typical components for a closed system;
- Spray Booth Structure, manufactured from insulated panels (Rock Wool or EPS);
 - Air Intake Systems;
 - Air Intake Filtration System;
 - Air Extraction Systems;
 - Entrance and Exit Doors at opposing ends of spray booth;
 - Heating Systems which automatically regulate the internal temperature during spray painting mode;
 - Ceiling and Side Wall Lights; and
 - Electrical Control System.
- Admin buildings for drivers and staff (e.g., driver dispatch facility, driver mess and recreational facilities);
- Security buildings at the main entrance;
- Double-fencing around perimeter;
- Landscaped areas around the depot; and
- Stormwater drainage and attenuation infrastructure.

Access would be off Wetton Road and there would be two embayments for drop-off/pick-up purposes (refer to Figure ii). Note that the Wetton Road/ Racecourse Access Road intersection would be upgraded and signalised if it is not already done by the time the development of the proposed development commences.

The proposed depot would be serviced through existing connections to the City of Cape Town supply in terms of water, sanitation as well as electricity. Refuse collection would also likely be provided by the City of Cape Town (subject to the waste branch comment on the pre-application draft BAR) or would be removed by a private contractor.

Stormwater would be managed on site, within the limits of the proposed development footprint, through capture in permeable pavers, which would run to a stormwater pond in the north-east corner of the site. The pond would treat the stormwater to acceptable quality standards for discharge into the wetlands to the east of the site. The stormwater management system on site would also be designed to accommodate the loss of function that infilling the wetlands for the proposed development would cause. This plan has achieved in principal approval from the City of Cape Town Roads and Stormwater branch (refer to **Appendix G(c)**).

Connection would be made to existing electrical, water and sanitation services in the area, all of which have been confirmed to have capacity by the City of Cape Town. Refuse removal would either be provided by the City of Cape Town or private contractor.

Boreholes would also be located throughout the site for groundwater quality monitoring during the pre-construction and operational phase. These would not be used for water abstraction purposes, and only monitoring.

Although there is limited space available for landscaping, the implementation of soft landscaping has been considered as far as possible and would include aspects such as tree planting, appropriate edge treatment, as well as making use of appropriate planting in support of stormwater management on the site. Refer to **Figure c** as well as to **Appendix N** for the draft landscape plan.

Rational behind Preference

No site/property alternatives have been assessed in this process because there was a scoping/screening exercise carried out by the City of Cape Town (with support from GAPP Architects and SVA Architects) which considered four sites (the proposed site was one of them) and assessed and ranked them against a set of technical, legal, and contextual criteria. The proposed site emerged on top of that, being the best fit that could be accommodated to acceptable limits.

Activity alternatives have not been assessed because the Applicant is mandated to provide transport networks for the City of Cape Town and would not proposed developments beyond this scope. The Applicant wishes to develop to IRT networks and supporting facilities throughout the City of Cape Town and, therefore, no activity alternatives were (or could have been) considered. Technology alternatives have not been assessed because there is limited scope for implementation of a range of technology in terms of options available, noting that best practice in terms of resource use and efficiencies have been considered and would be incorporated into design. Similarly, operational alternatives have also not been assessed because a MyCiTi depot provides for little flexibility in terms of operational aspects as there are very specific requirements for it to function effectively.

Design/layout/ development footprint alternatives have been assessed and, many of the impact would be the same across both (e.g. socio-economic, traffic, freshwater, faunal, botanical, MHI risk, groundwater, heritage and agricultural), but there has been a clear preference form a faunal perspective for the preferred alternative (Alternative 2) and the footprint has been devised in order to avoid the less degraded wetland areas and moderate SEI faunal habitat, and to provide a slightly comparatively wider faunal movement corridor for the WLT (noting this is potential as no WLT were identified during the faunal assessment, but it has still been assumed that they use the site for movement and foraging) (refer to

Figure ff). It is also comparatively narrower in the south-west corner in order to avoid any Bonnytown informal settlement structures. Therefore, Alternative 2 is preferred.

Other design alternatives were considered for the stormwater management plan and the means of ground preparation, but these were scoped out prior to formal assessment as they were not considered appropriate.

The no-go alternative has also been assessed as the *status quo* of the site would continue as is. The no-go alternative is not preferred as it in itself holds negative impacts from an ecological perspective which are largely similar to the proposed development (except for the medium negative faunal impact associated with the reduction in WLT corridor and low to medium negative groundwater impacts) and so the conditions on site do not preclude development of the proposed depot as indicated in the preferred alternative, with implementation of mitigation as these impacts can be mitigated to acceptable levels (noting that the Medium negative faunal impact is acceptable in terms of the SEI for the SCC of the site). There are positive socio-economic impacts that would be foregone and the provision of the MyCiTi services would be hampered.

2. “No-Go” areas

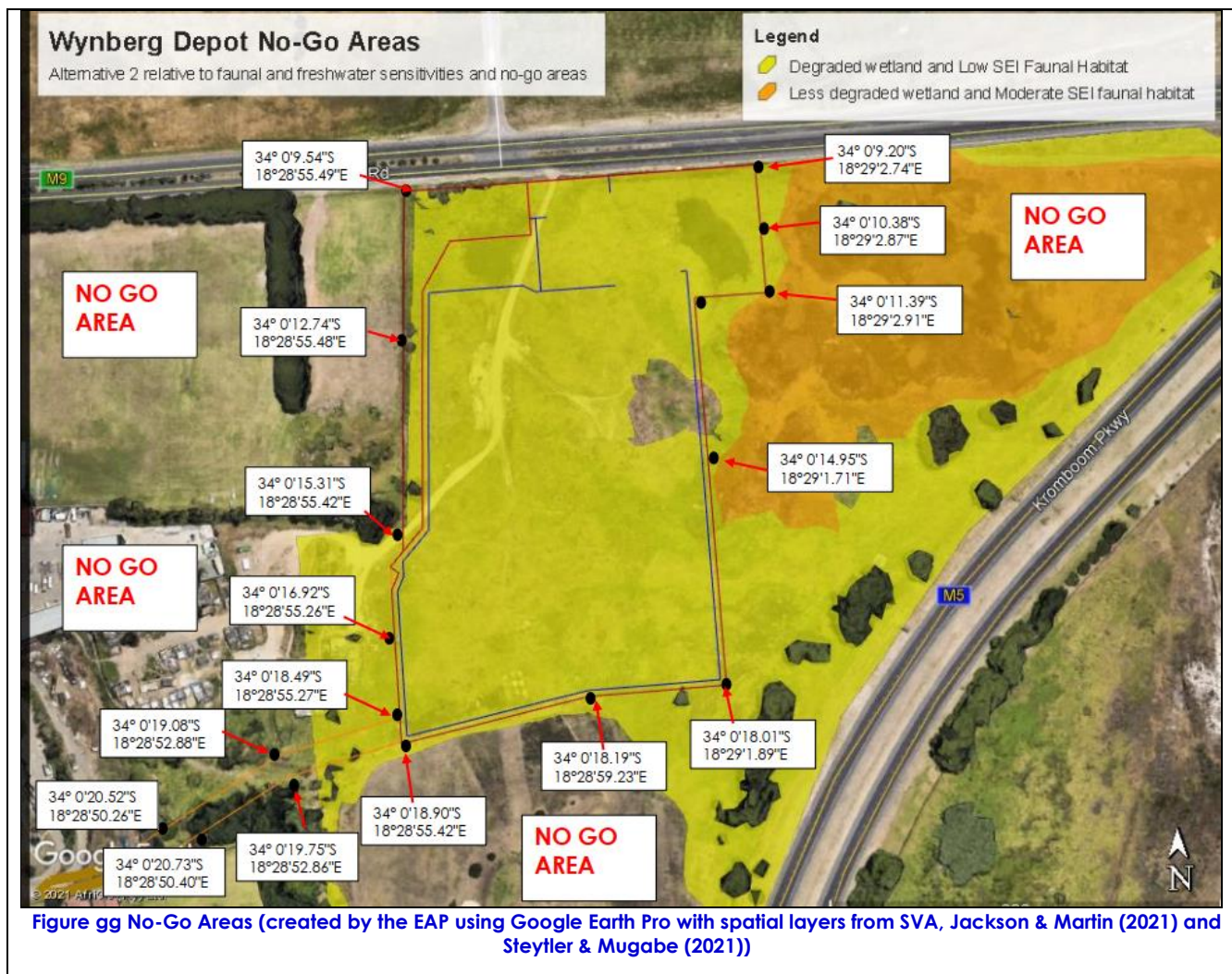
Explain what “no-go” area(s) have been identified during identification of the alternatives and provide the co-ordinates of the “no-go” area(s).

The following areas have been identified as no-go areas during construction and operation of the proposed development:

- Adjacent wetland to the East of the site.
- Medium SEI faunal area to the east of the site;
- Bonnytown informal settlement (except with the construction of the re-aligned access road and partial fencing of the settlement provided through the fencing of the proposed bus depot); and
- Wynberg Sports Club.

Essentially, anything not within the limits of the site boundary and Bonnytown access road would be no-go areas.

A map of the environmental sensitivities and no-go areas is provided in **Figure gg** and also included in **Appendix T**.



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

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

Specialist studies have been conducted under Chand, for the Basic Assessment which have included Botanical Impact Assessment, Freshwater Impact Assessments, Heritage Screener and NID submission, Noise Impact Assessment, MHI Risk Assessment, Agricultural Compliance Statement, Groundwater impact assessment as well as a Faunal impact assessment.

Additional specialist input has provided more information on the site baseline conditions or for project design, as part of the project development team. These include:

- Transport Impact Assessment;
- Stormwater Management Plan;
- Geotechnical Assessment;
- Soil Contamination Assessment; and
- Landscaping Plan.

The findings of the above have also been incorporated into this report, as far as they inform the proposed development and mitigation/ design measures needed.

These specialist studies have been conducted by reputable professionals with the aim of identifying potential environmental impacts of the proposed development, as well as measures to mitigate any environmental impacts. The assessment methods are deemed acceptable for the nature and scale of the development, and are detailed in Appendix J.

Furthermore, the scope of the study has been determined with reference to the requirements of the relevant legislation, namely the NEMA EIA Regulations, as amended in 2017. The main responsibilities of the environmental consultant would include but not be limited to, the following, as stipulated in the EIA Regulations:

- Pre-application consultation with the authorities in order to highlight any key issues and/or requirements early in the process;

- Submission of a Notice of Intent to the DEA&DP in order to make them aware of the proposal and forthcoming application;
- Submission of the required Application Form to the DEA&DP, in order to register the proposed project, and obtain the applicable reference number;
- Consultation with the relevant authorities and stakeholders, through the Basic Assessment process, to ensure that identification of relevant issues or concerns are undertaken;
- Ensure the assessment of and response to the issues that are raised;
- Compilation of the required BAR, describing the proposed activity, the affected environment, the potential environmental impacts, all applicable legislation and applicable guidelines, the detail of the public participation process followed, and the findings of the specialist studies and recommendations and/or mitigations measures to be implemented during construction and operation;
- Submission of the final BAR to the public for comment and to the DEA&DP for a decision.

One of the fundamental aims of a Basic Assessment process is to ensure that the demands of sustainable development are met on a project level, within the context of the greater area. The most common definition of sustainable development is development that meets the needs of the present while not compromising the needs of future generations.

The Basic Assessment for the proposed bus depot is therefore being undertaken with sustainable development as a goal. The assessment has looked at the impacts of the proposals on the environment and assessed the significance of these, and proposes mitigation measures, as required, to reduce anticipated impacts to acceptable levels. This is to ensure that the development makes "equitable and sustainable use of environmental and natural resources for the benefit of present and future generations". Impacts and mitigation measures/ the response of the proposed development thereto are deemed acceptable by the specialist team, particularly in the context of relevant assessment guidelines and verified sensitivity/ environmental value of the site from various aspects.

The overall assessment criteria are based on the requirements of the National Environmental Management, 1998 (Act 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2014. Refer to the methodology included in Appendix J.

The assessment criteria and methods employed by each specialist have been indicated in the various specialist reports contained in **Appendix G**.

The methods used have been carried out according to the legal requirements for such a process and are considered sufficient for this purpose.

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

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

Note that there are no impacts on **agricultural** resources anticipated as a result of the proposed development (Lanz, 2021), therefore, these impacts are not assessed further below.

Note also that there are no construction-phase impacts associated with the **MHI**, as these risks are related to the operations of the USTs.

| Alternative: | 1 | 2 (Preferred) | No-Go |
|--|---|---|-------|
| Planning, design, and development phase | | | |
| Potential impacts on geographical and physical aspects | | | |
| Potential impact and risk: | ALTERING THE SURFACE DRAINAGE REGIME | | |
| Nature of impact: | The cut and fill activities and other earthworks that would be required to support development on the site would result in changes to the surface water flow pattern. | Surface Water Flow would not be altered and would remain as is. | |
| Extent and duration of impact: | Localised within the site boundary and permanent | | |
| Consequence of impact or risk: | Additional stormwater volumes in local (i.e., on site and adjacent) infrastructure | No change | |
| Probability of occurrence: | Definite | | |
| Degree to which the impact may cause irreplaceable loss of resources: | Low | | |
| Degree to which the impact can be reversed: | Medium | Not necessary, there would be no impact | |
| Indirect impacts: | Localised flooding | None | |
| Cumulative impact prior to mitigation: | Medium (-) | None | |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Medium (-) | None | |
| Degree to which the impact can be avoided: | High | None with the no-go alternative | |
| Degree to which the impact can be managed: | High | None with the no-go alternative | |

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| Degree to which the impact can be mitigated: | High | No mitigation required as the site currently accommodates its own surface water |
| Proposed mitigation: | The stormwater management plan is to be approved by the City Stormwater Branch prior to construction. Implement requirements of stormwater management plan as per EMPr. | Not Applicable |
| Residual impacts: | Additional stormwater volumes accommodated within the stormwater management system, with clean water entering wetlands to the east | Not Applicable |
| Cumulative impact post mitigation: | Neutral | Not Applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Neutral | Not Applicable |
| NOTE ON SIGNIFICANCE OF IMPACT: While surface drainage is an important aspect to take into consideration as part of the final design of the development, the related impacts (assuming engineering solutions are incorporated) will not be significant and will not have any effect on the surrounding areas. This is addressed in the stormwater management plan (refer to Appendix G(c)). | | |
| Socio-economic- ECONOMIC STIMULUS | | |
| Potential impact and risk: | Generation of local economic stimulus | No generation of local economic stimulus |
| Nature of impact: | Creation of employment opportunities as a result of development/ construction of the proposed development for a period of approximately 8 to 12 months. | No job opportunities would be made available as development would not take place. |
| Extent and duration of impact: | Widespread impact beyond the site boundary and short-term | Widespread impact beyond the site boundary and long-term |
| Consequence of impact or risk: | Increase in income for local communities and design, planning and construction industry | None, no income generated |
| Probability of occurrence: | Definite | |
| Degree to which the impact may cause irreplaceable loss of resources: | Not applicable | |
| Degree to which the impact can be reversed: | Low, Positive impact, not desirable to be reversed | Reversible should other development in the area take place |
| Indirect impacts: | Buying power of certain members in the local communities and related industries increases for a short period | None, no improvement upon status quo |
| Cumulative impact prior to mitigation: | Medium (+) | Neutral and foregone positive impacts of alternative |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Medium (+) | Neutral and foregone positive impacts of alternative |
| Degree to which the impact can be avoided: | Low | Not applicable |
| Degree to which the impact can be managed: | High | Not applicable |
| Degree to which the impact can be mitigated: | Low, but no need to mitigate a positive impact. | Not applicable |
| Proposed mitigation: | Not applicable, other than for Municipal procurement processes to be followed. | Not applicable |
| Residual impacts: | Buying power of local communities increases for a short period | None |
| Cumulative impact post mitigation: | Medium (+) | Not applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Medium (+) | Not applicable |
| NOTE ON SIGNIFICANCE OF IMPACT: This impact has been based on the socio-economic data for the proposed development provided in section G8 relative to the socio-economic information on the local communities and Wynberg, Kenilworth and Youngsfield communities as a whole. | | |
| Socio-economic- SAFETY AND SECURITY | | |
| Potential impact and risk: Safety and Security | | |
| Nature of impact: | Generation of continuous activities and presence on the site which would reduce the likelihood of illegal occupation of the site as well as the use of the site for illegal activities and suspicious behaviour. | The site would remain unsecured as it is at present. |
| Extent and duration of impact: | Widespread impact beyond the site boundary and short-term | Widespread impact beyond the site boundary and long-term |

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| Consequence of impact or risk: | Improved security in the area | None, status quo remains, where site has evidence of criminal activity and illegal dumping |
| Probability of occurrence: | Definite | |
| Degree to which the impact may cause irreplaceable loss of resources: | None | |
| Degree to which the impact can be reversed: | Positive impact, not desirable to be reversed | Reversible should other development in the area take place |
| Indirect impacts: | Improved security in the area with minor reduction in criminal activity in area anticipated | None |
| Cumulative impact prior to mitigation: | Medium (+) | Medium (-) and foregone positive impacts of alternative |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Medium (+) | Medium (-) and foregone positive impacts of alternative |
| Degree to which the impact can be avoided: | Medium | Not applicable |
| Degree to which the impact can be managed: | High | Not applicable |
| Degree to which the impact can be mitigated: | High | Not applicable |
| Proposed mitigation: | Follow construction EMPr, particularly specifications regarding labour relations and site security | Not applicable |
| Residual impacts: | Improved security in the area with minor reduction in criminal activity in area anticipated | Not applicable |
| Cumulative impact post mitigation: | Medium (+) | Not applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Medium (+) | Not applicable |
| Nuisance Impacts | | |
| Potential impact and risk: Noise and Dust | | |
| Nature of impact: | The land clearing and other construction activities will result in the generation of dust and noise which may be a nuisance to surrounding land users whilst construction is ongoing. | |
| Extent and duration of impact: | Widespread (on site and immediate surrounds) and short-term (noting that construction would likely occur in phases) | Widespread (on site and immediate surrounds), duration not applicable as there will be no impact (i.e., no construction activities) |
| Consequence of impact or risk: | Localised increased dust on surfaces and possible sinus concerns for users of land adjacent to the site | None, no impact |
| Probability of occurrence: | Possible | None |
| Degree to which the impact may cause irreplaceable loss of resources: | Low | None |
| Degree to which the impact can be reversed: | Irreversible | Reversible |
| Indirect impacts: | Residents adjacent to the site may have to clean surfaces more and may require some minor treatment of sinus issues, however this would be unlikely | None |
| Cumulative impact prior to mitigation: | Very Low (-) | Zero |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | Zero |
| Degree to which the impact can be avoided: | Low | Not applicable |
| Degree to which the impact can be managed: | High | Not applicable |
| Degree to which the impact can be mitigated: | Medium | Not applicable as there would be no impacts to mitigate. |
| Proposed mitigation: | Implementation of the specifications in the EMPr (Appendix H) which pertain to the management of the noise and dust elements of the construction site. | Not applicable |
| Residual impacts: | Minor additional dust and noise (during working hours) in environments adjacent to the site | Not applicable |
| Cumulative impact post mitigation: | Neutral | Not applicable |
| Significance rating of impact after mitigation | Very Low (-) | Not applicable |

| | | |
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| (e.g., Low, Medium, Medium-High, High, or Very-High) | | |
| NOTE ON SIGNIFICANCE OF IMPACT: The implementation of the specifications of the EMPr for the site would serve to reduce dust and noise impacts associated with construction activities. The residual impacts after mitigation was applied are considered adequate for temporary construction related impacts of this nature and are not considered significant. The "Low" loss of irreplaceable resources refers to the impact of losing the indigenous vegetation with the implementation of the recommended mitigation. | | |
| Visual | | |
| Potential impact and risk: Adverse visual/ aesthetic impacts | | |
| Nature of impact: | Visual impacts associated with construction activities (machinery, vehicle movement, site camp, signage, lighting and temporary services, wind-blown litter, erosion, and exposed surfaces) | |
| Extent and duration of impact: | Widespread (on site and immediate surrounds), short-term (noting that construction would likely be phased) | Widespread (on site and immediate surrounds), duration not applicable as there will be no impact (i.e., no construction activities) |
| Consequence of impact or risk: | Construction areas look comparatively unsightly for a short period of time and may detract from the overall scenic experience of the area (which presently does not offer any unique character) | No occurrence of construction activities |
| Probability of occurrence: | Definite | No occurrence of construction activities |
| Degree to which the impact may cause irreplaceable loss of resources: | None | |
| Degree to which the impact can be reversed: | High | |
| Indirect impacts: | Passers-by would see a construction site rather than the present site conditions, which are currently unkempt and dumped material/waste | None |
| Cumulative impact prior to mitigation: | Low (-) | Zero |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | Zero |
| Degree to which the impact can be avoided: | Low | Not applicable |
| Degree to which the impact can be managed: | High | Not applicable |
| Degree to which the impact can be mitigated: | Medium | Not applicable |
| Proposed mitigation: | Implementation of the specifications in the EMPr (Appendix H) which pertain to the management of the visual/aesthetic elements of the construction site. | Not applicable as there would be no impacts to mitigate. |
| Residual impacts: | Controlled unsightly areas during construction activities | Not applicable as there would be no impacts to mitigate. |
| Cumulative impact post mitigation: | Neutral | Not applicable as there would be no impacts to mitigate. |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Very Low (-) | Not applicable as there would be no impacts to mitigate. |
| NOTE ON SIGNIFICANCE OF IMPACT: The residual impacts after mitigation was applied are considered adequate for temporary construction related impacts of this nature and are not considered significant. | | |
| Natural Resources | | |
| Potential impact and risk: Use of Natural Resources | | |
| Nature of impact: | Construction of the proposed development and the associated use of natural resources, such as water, resources for the generation of energy, construction materials etc. | |
| Extent and duration of impact: | Widespread beyond site boundary, Short-term | Widespread beyond site boundary, duration not applicable as there will be no impact (i.e., no construction activities) |
| Consequence of impact or risk: | Depletion in natural resources | None, status quo remains |
| Probability of occurrence: | Definite | No occurrence of construction activities |
| Degree to which the impact may cause irreplaceable loss of resources: | Very Low | None |
| Degree to which the impact can be reversed: | Irreversible | Reversible |
| Indirect impacts: | Fewer natural resources available for development | None |
| Cumulative impact prior to mitigation: | Very low (-) | Zero |

| | | |
|---|---|--|
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | Zero |
| Degree to which the impact can be avoided: | Low | Not applicable |
| Degree to which the impact can be managed: | High | Not applicable |
| Degree to which the impact can be mitigated: | Medium | Not applicable |
| Proposed mitigation: | Implementation of the specifications in this regard contained in the EMPr (Appendix H). | Not applicable as there would be no impacts to mitigate. |
| Residual impacts: | Controlled use of natural resources and avoidance or minimisation of wastage | Not applicable as there would be no impacts to mitigate. |
| Cumulative impact post mitigation: | Very low (-) | Not applicable as there would be no impacts to mitigate. |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Very low (-) | Not applicable as there would be no impacts to mitigate. |

NOTE ON SIGNIFICANCE OF IMPACT: Subsequent to mitigation, the residual impacts are deemed to be insignificant.

Traffic

| | | |
|---|--|--|
| Potential impact and risk: | Traffic Congestion on local road network during construction | |
| Nature of impact: | Disturbance to local traffic conditions and safety for road users as a result of construction vehicles accessing the sites during the construction activities. | None |
| Extent and duration of impact: | Medium and short-term | None |
| Consequence of impact or risk: | Minor additional waiting time in traffic, or potential accidents/injuries to users of the road | None |
| Probability of occurrence: | Probable | No occurrence of construction activities |
| Degree to which the impact may cause irreplaceable loss of resources: | Low (with congestion) Medium to high (with harm to persons) | None |
| Degree to which the impact can be reversed: | Reversible (with congestion) Not reversible (with harm to persons) | None |
| Indirect impacts: | Minor additional waiting time in traffic | None |
| Cumulative impact prior to mitigation: | Low (-) | None |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Medium (-) | None |
| Degree to which the impact can be avoided: | Medium | Not Applicable |
| Degree to which the impact can be managed: | High | Not Applicable |
| Degree to which the impact can be mitigated: | Medium | Not Applicable |
| Proposed mitigation: | Mitigations measures for traffic control have been included in the EMPr | Not Applicable |
| Residual impacts: | Minor, ad hoc, and occasional additional waiting time in traffic | Not Applicable |
| Cumulative impact post mitigation: | Very Low (-) | Not Applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | Not Applicable |

NOTE ON SIGNIFICANCE OF IMPACT: Traffic congestion during construction can be managed and controlled.

Heritage (Lavin, 2021)

| | | |
|---|---|--|
| Potential impact and risk: | Impacts to significant heritage resources | |
| Nature of impact: | Destruction of significant heritage resources | None |
| Extent and duration of impact: | Within site boundary (local) and permanent | None |
| Consequence of impact or risk: | Permanent loss of context of significant heritage resources | None |
| Probability of occurrence: | Unlikely | No occurrence of construction activities |
| Degree to which the impact may cause irreplaceable loss of resources: | Unlikely | None |
| Degree to which the impact can be reversed: | Irreversible | None |
| Indirect impacts: | Unlikely | None |

| | | |
|--|---|--|
| Cumulative impact prior to mitigation: | None anticipated | None |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low | None |
| Degree to which the impact can be avoided: | No impact anticipated | Not Applicable |
| Degree to which the impact can be managed: | No impact anticipated | Not Applicable |
| Degree to which the impact can be mitigated: | No impact anticipated | Not Applicable |
| Proposed mitigation: | No mitigation required | Not Applicable |
| Residual impacts: | No impact anticipated | Not Applicable |
| Cumulative impact post mitigation: | No impact anticipated | Not Applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | None | Not Applicable |
| NOTE ON SIGNIFICANCE OF IMPACT: Lavin (March 2021) notes that there would be no impact on heritage resources. This is echoed by HWC in their response to the NID (refer to Appendix E1). However, in keeping with the "precautionary principal", it has been recommended that should any heritage resources, including evidence of grave, human burials, archaeological material, and paleontological material be discovered during the excavation of activities above, all works must be stopped immediately and HWC must be notified without delay. | | |
| Ecological- Freshwater (Steytler & Mugabe, 2021) | | |
| Potential impact and risk: | Loss of wetland habitat and function | |
| Nature of impact: | Loss of wetland habitat and function | |
| Extent and duration of impact: | Local and permanent | None |
| Consequence of impact or risk: | Negative | None |
| Probability of occurrence: | Definite | No occurrence of construction activities |
| Degree to which the impact may cause irreplaceable loss of resources: | Low (most of the wetland habitat that would be lost is highly degraded and as such is unlikely to be associated with irreplaceable resources) | None |
| Degree to which the impact can be reversed: | Irreversible | None |
| Indirect impacts: | NA | None |
| Cumulative impact prior to mitigation: | High | None |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Medium (-) | None |
| Degree to which the impact can be avoided: | Impact cannot be avoided given spatial constraints of the site | Not Applicable |
| Degree to which the impact can be managed: | None, cannot be managed | Not Applicable |
| Degree to which the impact can be mitigated: | Habitat loss cannot be mitigated Loss of wetland function can be managed (see below) | Not Applicable |
| Proposed mitigation: | As per mitigation measured in the EMPr and noted in section I2 of this report. | Not Applicable |
| Residual impacts: | Low (-) | Not Applicable |
| Cumulative impact post mitigation: | Negligible ²² | Not Applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | Not Applicable |
| NOTE ON SIGNIFICANCE OF IMPACT: Ecological impacts were assessed by Steytler & Mugabe (2021) and are included in Appendix G (a). | | |
| Ecological- Freshwater (Steytler & Mugabe, 2021) | | |
| Potential impact and risk: | Disturbance of remaining wetland habitat | |
| Nature of impact: | Disturbance of remaining wetland habitat | |
| Extent and duration of impact: | Local and short-term (with mitigation) | None |
| Consequence of impact or risk: | Negative | None |
| Probability of occurrence: | Probable (with mitigation) | No occurrence of construction activities |

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| Degree to which the impact may cause irreplaceable loss of resources: | Low (disturbance is unlikely to result in actual loss of resources) | None |
| Degree to which the impact can be reversed: | Fully reversible | None |
| Indirect impacts: | NA | None |
| Cumulative impact prior to mitigation: | High | None |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | None |
| Degree to which the impact can be avoided: | Medium (activities causing disturbance can be located away from sensitive habitat) | Not Applicable |
| Degree to which the impact can be managed: | Medium (activities causing disturbance can be contained) | Not Applicable |
| Degree to which the impact can be mitigated: | Medium (disturbed areas can be partially restored through rehabilitation) | Not Applicable |
| Proposed mitigation: | As per mitigation measured in the EMPr and noted in section I2 of this report. | Not Applicable |
| Residual impacts: | Very Low (-) | Not Applicable |
| Cumulative impact post mitigation: | Negligible ²³ | Not Applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Very Low (-) | Not Applicable |
| NOTE ON SIGNIFICANCE OF IMPACT: ECOLOGICAL impacts were assessed by Steytler & Mugabe (2021) and are included in Appendix G (a). | | |
| Ecological- Freshwater (Steytler & Mugabe, 2021) | | |
| Potential impact and risk: | Alteration of the natural flow regime | |
| Nature of impact: | Alteration of the natural flow regime | |
| Extent and duration of impact: | Local (site) and short-term | None |
| Consequence of impact or risk: | Negative | None |
| Probability of occurrence: | Improbable (with mitigation) | No occurrence of construction activities |
| Degree to which the impact may cause irreplaceable loss of resources: | Low | None |
| Degree to which the impact can be reversed: | Irreversible | None |
| Indirect impacts: | NA | None |
| Cumulative impact prior to mitigation: | High | None |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | None |
| Degree to which the impact can be avoided: | Medium | Not Applicable |
| Degree to which the impact can be managed: | Medium | Not Applicable |
| Degree to which the impact can be mitigated: | Medium | Not Applicable |
| Proposed mitigation: | As per mitigation measured in the EMPr and noted in section I2 of this report. | Not Applicable |
| Residual impacts: | Very low (-) | Not Applicable |
| Cumulative impact post mitigation: | High | Not Applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Very low (-) | Not Applicable |
| NOTE ON SIGNIFICANCE OF IMPACT: Ecological impacts were assessed by Steytler & Mugabe (2021) and are included in Appendix G (a). | | |
| Ecological- Freshwater (Steytler & Mugabe, 2021) | | |
| Potential impact and risk: | Increased erosion and sedimentation | |
| Nature of impact: | Increased erosion and sedimentation | |
| Extent and duration of impact: | Local and short-term (with mitigation) | None |
| Consequence of impact or risk: | Negative | None |
| Probability of occurrence: | Probable (with mitigation) | No occurrence of construction activities |

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| Degree to which the impact may cause irreplaceable loss of resources: | Low | None |
| Degree to which the impact can be reversed: | Reversible | None |
| Indirect impacts: | NA | None |
| Cumulative impact prior to mitigation: | High | None |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | None |
| Degree to which the impact can be avoided: | Medium | Not Applicable |
| Degree to which the impact can be managed: | Medium | Not Applicable |
| Degree to which the impact can be mitigated: | Low | Not Applicable |
| Proposed mitigation: | As per mitigation measured in the EMPr and noted in section I2 of this report. | Not Applicable |
| Residual impacts: | Very Low (-) | Not Applicable |
| Cumulative impact post mitigation: | Negligible ²⁴ | Not Applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Very Low (-) | Not Applicable |
| NOTE ON SIGNIFICANCE OF IMPACT: Ecological impacts were assessed by Steytler & Mugabe (2021) and are included in Appendix G (a). | | |
| Ecological- Freshwater (Steytler & Mugabe, 2021) | | |
| Potential impact and risk: | Water quality impairment | |
| Nature of impact: | Water quality impairment | |
| Extent and duration of impact: | Local (with mitigation) and short-term (with mitigation) | None |
| Consequence of impact or risk: | Negative | None |
| Probability of occurrence: | Probable (with mitigation) | No occurrence of construction activities |
| Degree to which the impact may cause irreplaceable loss of resources: | Low | None |
| Degree to which the impact can be reversed: | Irreversible | None |
| Indirect impacts: | NA | None |
| Cumulative impact prior to mitigation: | High | None |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Medium (-) | None |
| Degree to which the impact can be avoided: | Medium | Not Applicable |
| Degree to which the impact can be managed: | Medium | Not Applicable |
| Degree to which the impact can be mitigated: | Medium | Not Applicable |
| Proposed mitigation: | As per mitigation measured in the EMPr and noted in section I2 of this report. | Not Applicable |
| Residual impacts: | Very low (-) | Not Applicable |
| Cumulative impact post mitigation: | Negligible ²⁵ | Not Applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Very Low (-) | Not Applicable |
| NOTE ON SIGNIFICANCE OF IMPACT: Ecological impacts were assessed by Steytler & Mugabe (2021) and are included in Appendix G (a). | | |
| Ecological- Freshwater (Steytler & Mugabe, 2021) | | |
| Potential impact and risk: | Loss of biota | |
| Nature of impact: | Loss of biota | |
| Extent and duration of impact: | Local and permanent | None |
| Consequence of impact or risk: | Negative | None |

²⁴ P 64, Steytler & Mugabe, 2021

²⁵ P 64, Steytler & Mugabe, 2021

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| Probability of occurrence: | Probable (with mitigation) | No occurrence of construction activities |
| Degree to which the impact may cause irreplaceable loss of resources: | Low (the severely degraded portion is unlikely to contain irreplaceable resources) | None |
| Degree to which the impact can be reversed: | Irreversible | None |
| Indirect impacts: | NA | None |
| Cumulative impact prior to mitigation: | High | None |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Medium (-) | None |
| Degree to which the impact can be avoided: | Low | Not Applicable |
| Degree to which the impact can be managed: | Medium | Not Applicable |
| Degree to which the impact can be mitigated: | High | Not Applicable |
| Proposed mitigation: | As per mitigation measured in the EMPr and noted in section I2 of this report. | Not Applicable |
| Residual impacts: | Very Low (-) | Not Applicable |
| Cumulative impact post mitigation: | Negligible ²⁶ | Not Applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Very Low (-) | Not Applicable |
| NOTE ON SIGNIFICANCE OF IMPACT: Ecological impacts were assessed by Steytler & Mugabe (2021) and are included in Appendix G (a). | | |
| Ecological- Freshwater (Steytler & Mugabe, 2021) | | |
| Potential impact and risk: | Improvement in water quality | |
| Nature of impact: | Improvement in water quality | |
| Extent and duration of impact: | Local and long-term (with mitigation) | None |
| Consequence of impact or risk: | Positive | None |
| Probability of occurrence: | Definite | No occurrence of construction activities |
| Degree to which the impact may cause irreplaceable loss of resources: | NA (impact is positive) | None |
| Degree to which the impact can be reversed: | NA (impact is positive) | None |
| Indirect impacts: | NA | None |
| Cumulative impact prior to mitigation: | High | None |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (+) | None |
| Degree to which the impact can be avoided: | NA (impact is positive) | Not Applicable |
| Degree to which the impact can be managed: | NA (impact is positive) | Not Applicable |
| Degree to which the impact can be mitigated: | NA (impact is positive) | Not Applicable |
| Proposed mitigation: | As per mitigation measured in the EMPr and noted in section I2 of this report, noting that these are, in fact, management measures rather than mitigation measures. | Not Applicable |
| Residual impacts: | Medium (+) | Not Applicable |
| Cumulative impact post mitigation: | Negligible ²⁷ | Not Applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Medium (+) | Not Applicable |
| NOTE ON SIGNIFICANCE OF IMPACT: Ecological impacts were assessed by Steytler & Mugabe (2021) and are included in Appendix G (a). | | |
| Ecological- Botanical (NCC, 2021) | | |
| Potential impact and risk: | Potential loss of critically endangered CFSF 'vegetation type' (including stormwater pond area) for the IRT Wynberg bus depot (partial loss for preferred alternative- approx 48327m ²) | |

²⁶ P 64, Steytler & Mugabe, 2021

²⁷ P 64, Steytler & Mugabe, 2021

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| Nature of impact: | Negative | | |
| Extent and duration of impact: | Site (local) and permanent | | Site and long-term |
| Consequence of impact or risk: | Slightly detrimental | | |
| Probability of occurrence: | Improbable | | Definite |
| Degree to which the impact may cause irreplaceable loss of resources: | None (impact will not cause loss of resources) | | |
| Degree to which the impact can be reversed: | Irreversible | | |
| Indirect impacts: | None | | |
| Cumulative impact prior to mitigation: | Low (-) | | High (-) |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | None/ no impact | | Low (-) |
| Degree to which the impact can be avoided: | Low | | Impact cannot be avoided |
| Degree to which the impact can be managed: | Low | | Medium |
| Degree to which the impact can be mitigated: | Low | | Low |
| Proposed mitigation: | NA | | IAP management, rehabilitation |
| Residual impacts: | Low | None | Medium |
| Cumulative impact post mitigation: | Low (-) | | High (-) |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | No impact | | Low (-) |
| NOTE IN IMPACT: The potential direct loss of CFSF vegetation type due to the potential construction is assessed as, 'No impact' because no actual CFSF type remains or is present on the site that would be affected/lost as a result of construction (a few 'least concern' indigenous plants scattered around do not constitute a vegetation type). In terms of database records of the remaining extents of this vegetation type the development of the depot would result in these records needing to subtract the developmental area from the remaining percentage, something that should/would in occur in any case if ground-truthed owing to the irreversibly modified state of the site. i.e.: The development is not responsible for the actual destruction of the listed vegetation type on site, it is already gone, although until developed it is still listed as such. Note that no-go is assessed assuming status quo remains, in terms of direct impacts on the plants found on site. If the construction and associated destruction (removal) of vegetation on the site does not occur, then the status quo and general degradation of the area will persist. Currently the site has been highly impacted by invasion and proliferation of exotic grasses and IAP's to the point where it is irreversibly transformed. Further degradation is however not likely to cause any further loss of important plant species on the site as there are none present anymore which is why impact will not cause loss of resources and the significance and intensity low. | | | |
| Ecological- Fauna (Jackson & Martin, 2021)- Loss of extent of faunal habitat and reduced faunal diversity | | | |
| Potential impact and risk: | Loss of extent of degraded depression wetland fauna habitat | Loss of extent of less degraded depression wetland fauna habitat | Loss of extent of less degraded and degraded depression wetland fauna habitat |
| Nature of impact: | Negative | | None |
| Extent and duration of impact: | Localised and permanent | | None as no construction would occur |
| Consequence of impact or risk: | Slight | | Not applicable |
| Probability of occurrence: | Definite | | Not applicable |
| Degree to which the impact may cause irreplaceable loss of resources: | Resource will be partially lost | Resource will be lost | Not applicable |
| Degree to which the impact can be reversed: | This activity will lead to an impact that is permanent regardless of the implementation of mitigation measures | | Not applicable |
| Indirect impacts: | No known indirect impacts exist | | Not applicable |
| Cumulative impact prior to mitigation: | The project is in an urban area, but no other development are known to remove habitat in the immediate vicinity | | Not applicable |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | | Not applicable |
| Degree to which the impact can be avoided: | This portion can be avoided with no buffer. The future building in Figure 1.2 of the faunal report should ideally not be included in this development. | Impact cannot be avoided | Not applicable |

| | | | |
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| Degree to which the impact can be managed: | This feature has been included into the design | Impact cannot be managed | Not applicable |
| Degree to which the impact can be mitigated: | Difficult | | Not applicable |
| Proposed mitigation: | Restore onsite wetland at north-eastern boundary and incorporate as a feature for the administration building and staff rest areas to look onto and plan buildings in such a way that this can be appreciated (Figure 1.2 of the faunal report). Note that this is addressed through the preferred alternative. | As per mitigation measured in the EMPr and noted in section 12 of this report. | Not applicable |
| Residual impacts: | None | | Not applicable |
| Cumulative impact post mitigation: | May provide a better habitat for faunal species to utilise increasing the fauna in the amphibians and wetland bird species | No known cumulative impacts exist | None |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (+) | Low (-) | None |
| <p>NOTE IN IMPACT: Vegetation clearance for the construction of the proposed Wynberg IRT Depot will most likely result in the loss of extent of faunal habitat, namely, <i>degraded</i> depression wetland and <i>less degraded</i> depression wetland for the footprint of the proposed development. The loss of extent in available habitat is likely to reduce the number of faunae that it can sustain and thus displace the fauna currently utilising the habitat. Construction activities will introduce increased noise and vibration levels into the proposed development area. The fauna that do occur on site will generally move away from the source of disturbance, especially if activity increases rapidly. Displaced fauna may return after construction and/or new individuals may inhabit the area.</p> <p>The developable area will reduce faunal habitat and replace it with the footprint of the development and will most likely result in the permanent loss of faunal habitats however, this is unlikely to decrease or diminish the size of faunal populations, due to extent of transformed and degraded state of the site. The portion of habitat lost is considered small in size and there is enough habitat surrounding the proposed development in which fauna can inhabit and escape to. The severity of the impact for the construction of the IRT Depot site will be low negative.</p> | | | |
| Ecological- Fauna (Jackson & Martin, 2021)- Reduced faunal SCC diversity due to construction phase habitat clearing | | | |
| Potential impact and risk: | Reduced <i>S. Pantherina</i> foraging ground/corridor | | |
| Nature of impact: | Negative | None | |
| Extent and duration of impact: | Localised and permanent | None as no construction would occur | |
| Consequence of impact or risk: | Moderate | Not applicable | |
| Probability of occurrence: | Definite | Not applicable | |
| Degree to which the impact may cause irreplaceable loss of resources: | Resource will be partially lost | Not applicable | |
| Degree to which the impact can be reversed: | The activity will lead to an impact that is permanent | Not applicable | |
| Indirect impacts: | No known indirect impacts exist | Not applicable | |
| Cumulative impact prior to mitigation: | The project is in an urban area, but no other development are known to remove habitat in the immediate vicinity | Not applicable | |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | High (-) | Not applicable | |
| Degree to which the impact can be avoided: | Impact cannot be avoided | Not applicable | |
| Degree to which the impact can be managed: | Impact can be minimised through appropriate design of development features | Not applicable | |
| Degree to which the impact can be mitigated: | Difficult | Not applicable | |
| Proposed mitigation: | As per mitigation measured in the EMPr and noted in section 12 of this report. | Not applicable | |
| Residual impacts: | None | Not applicable | |
| Cumulative impact post mitigation: | None | None | |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Moderate/ Medium (-) | None | |

NOTE IN IMPACT: The only terrestrial vertebrate SCC that may be impacted on by the proposed development is *S. pantherina* which may utilise the degraded portion as a foraging ground or at the very least a corridor to reach foraging grounds. The loss of this land for the construction of the proposed Wynberg IRT Depot will most likely result in the loss of extent of available habitat. The severity of the impact for the construction of the project depends on the use of the project area by *S. pantherina*. If used as a corridor will have a moderate impact because the project is only taking up a portion of the corridor. Due to the fact that the absence of *S. pantherina* using the site cannot be proved beyond all doubt the precautionary approach has been applied.

Groundwater (Muller & Naicker, 2021)- Contamination of groundwater as a result of dewatering during excavation in the construction phase

| | | |
|--|--|-------------------------------------|
| Potential impact and risk: | Contamination as a result from dewatering machinery and activities | |
| Nature of impact: | Negative | None |
| Extent and duration of impact: | Local and short-term | None as no construction would occur |
| Consequence of impact or risk: | Contaminated groundwater and surrounding environment | Not applicable |
| Probability of occurrence: | Likely | Not applicable |
| Degree to which the impact may cause irreplaceable loss of resources: | Marginal loss of resources | Not applicable |
| Degree to which the impact can be reversed: | Partly reversible | Not applicable |
| Indirect impacts: | Physical, chemical, and biological systems | Not applicable |
| Cumulative impact prior to mitigation: | Low to Medium (-) | Not applicable |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low to Medium (-) | Not applicable |
| Degree to which the impact can be avoided: | Medium | Not applicable |
| Degree to which the impact can be managed: | Medium | Not applicable |
| Degree to which the impact can be mitigated: | Can be mitigated | Not applicable |
| Proposed mitigation: | As per mitigation measured in the EMPr and noted in section I2 of this report. | Not applicable |
| Residual impacts: | Some degree of wetland disturbance with the installation of monitoring boreholes | Not applicable |
| Cumulative impact post mitigation: | Low (-) | None |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | None |

NOTE IN IMPACT: Groundwater impacts were assessed by Naicker & Muller (2021) and are included in Appendix G(g).

Note that, in terms of the operational phase, there will be no **geographical or physical** impacts as these would be experienced during the construction/development phase.

There would also be negligible impacts from **dust** generation given that the site would largely be surfaced.

There are no significant cultural landscape / **visual** resources within the site and context (Lavin, 2021) and the site is presently an area where dumping has occurred for some time, and still occurs. The visual character of the site would change, but no further assessment in this regard has been deemed necessary, therefore no impacts in this regard apply.

There would also be no **agricultural** impacts during the operational phase (Lanz, 2021).

There are also no operational phase **risks** to society in general or to individuals on site (Thackwray, 2021).

| Alternatives | 1 | 2 (preferred) | No-go |
|---|---|---|--------------|
| Operational phase | | | |
| Socio-economic aspects- Employment Opportunities (assessed by EAP) | | | |
| Potential impact and risk: | Employment opportunities | | |
| Nature of impact: | Creation of employment opportunities as a result of the operation of development. Additional indirect economic impacts (stimulus) will also be experienced. | No job opportunities would be made available as development would not take place. | |
| Extent and duration of impact: | Widespread impact beyond the site boundary (in the local communities and possibly the greater Cape Town area) and long-term | Widespread impact beyond the site boundary and long-term | |
| Consequence of impact or risk: | Marginal increases in income for local communities. | Loss of opportunity for marginal increases in income for local communities. | |

| | | |
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| Probability of occurrence: | Definite | Definite |
| Degree to which the impact may cause irreplaceable loss of resources: | Not applicable | Not applicable |
| Degree to which the impact can be reversed: | Low | Low |
| Indirect impacts: | Buying power of local communities increases for a short period | Status quo remains |
| Cumulative impact prior to mitigation: | Medium (+) | Neutral and foregone positive impacts of alternative |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Medium (+) | Neutral and foregone positive impacts of alternative |
| Degree to which the impact can be avoided: | Low | Low |
| Degree to which the impact can be managed: | High | Low |
| Degree to which the impact can be mitigated: | No need to mitigate a positive impact. | Not applicable |
| Proposed mitigation: | Not applicable | Not applicable |
| Residual impacts: | Buying power of local communities increases for a short period | Status quo remains |
| Cumulative impact post mitigation: | Medium (+) | Not applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Medium (+) | Not applicable |
| NOTE ON SIGNIFICANCE OF IMPACT: The positive impacts on the job market and the economy that is associated with the operation of the development are considered significant in the current economic climate, noting that the proposed development option will be associated with a higher positive impact when compared to the no-go option (and what is on the sites at present). | | |
| Socio-economic aspects- Improved Accessibility (assessed by EAP) | | |
| Potential impact and risk: | Improved accessibility as a result of the construction of the proposed depot | |
| Nature of impact: | Provision of improved accessibility for previously disadvantaged communities with respect to employment, economic centres and places of education and recreation. | |
| Extent and duration of impact: | Widespread impact beyond the site boundary (in the local communities and the Western Cape) and long-term | Widespread impact beyond the site boundary (in the local communities and the Western Cape) and short-term |
| Consequence of impact or risk: | Creation of transport linkages to previously disadvantaged communities | No impact. |
| Probability of occurrence: | Definite | Not applicable |
| Degree to which the impact may cause irreplaceable loss of resources: | Low | None |
| Degree to which the impact can be reversed: | Positive impact, not desirable to be reversed | Reversible with the creation of other opportunities on the site |
| Indirect impacts: | Knock-on socio-economic effects with regular, safe access to places of work and recreation | None |
| Cumulative impact prior to mitigation: | Medium (+) | Zero and positive impacts would be foregone. |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Medium (+) | Zero and positive impacts would be foregone. |
| Degree to which the impact can be avoided: | None | Not applicable |
| Degree to which the impact can be managed: | Low | Not applicable |
| Degree to which the impact can be mitigated: | Low, not desirable to mitigate positive impact | Not applicable |
| Proposed mitigation: | Not applicable | Not applicable |
| Residual impacts: | Not applicable | Not applicable |
| Cumulative impact post mitigation: | Medium (+) | None |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Medium (+) | None |
| NOTE ON SIGNIFICANCE OF IMPACT: The positive impacts on the community and the economy that is associated with the operation of the development are considered significant in the current economic climate, noting that the proposed development option will be associated with a higher positive impact when compared to the no-go option (and what is on the sites at present). Note that the irreplaceable loss of resources refers to the impact association with the use of natural resources. | | |

| Socio-economic aspects- Public Safety and Security (assessed by EAP) | | |
|--|---|--|
| Potential impact and risk: | Public safety and security | |
| Nature of impact: | Improvements to safety and security for all those accessing the area via vehicles or on foot. | |
| Extent and duration of impact: | Widespread impact beyond the site boundary and long-term | Widespread impact beyond the site boundary and long-term |
| Consequence of impact or risk: | Greater confidence and freedom in individuals moving through and near the site | No change in status quo, which is not ideal |
| Probability of occurrence: | Definite | Not applicable |
| Degree to which the impact may cause irreplaceable loss of resources: | None | Not applicable |
| Degree to which the impact can be reversed: | Irreversible | Reversible with the creation of other opportunities on the site |
| Indirect impacts: | NA | None |
| Cumulative impact prior to mitigation: | Medium (+) | None |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | High (+) | Zero and positive impacts would be foregone. |
| Degree to which the impact can be avoided: | Not applicable | Not applicable |
| Degree to which the impact can be managed: | Not applicable | Not applicable |
| Degree to which the impact can be mitigated: | Not applicable | Not applicable |
| Proposed mitigation: | Not applicable | Not applicable as there would be no impacts to mitigate. |
| Residual impacts: | Not applicable | Not applicable |
| Cumulative impact post mitigation: | Medium (+) | None |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | High (+) | None |
| NOTE ON SIGNIFICANCE OF IMPACT: The site is currently considered unsafe, however the proposed development would ensure activities on and around the site provide for increased safety and security in the area. | | |
| Potential impacts associated with reduction in emission of greenhouse gases (assessed by EAP) | | |
| Potential impact and risk: | | |
| Nature of impact: | Operation of the proposed bus depot would result in an increasing number of people making use of public transport over private transport. This would reduce the per capita emission of greenhouse gases in the community. | No impact |
| Extent and duration of impact: | Widespread beyond site boundary (in the greater Cape Town area), Long-term | Widespread (beyond site boundary and in the greater Cape Town area) duration not applicable as there will be no impact (i.e., no operation of the proposed development as the development would not exist) |
| Consequence of impact or risk: | Fewer greenhouse gas emissions, marginal prevention of further degradation in air quality | Opportunity cost |
| Probability of occurrence: | Definite | No occurrence of operational activities |
| Degree to which the impact may cause irreplaceable loss of resources: | Very low | None |
| Degree to which the impact can be reversed: | Irreversible once the MyCiTi system has been established | Reversible, assuming development takes place |
| Indirect impacts: | Marginally better future air quality | Opportunity Cost |
| Cumulative impact prior to mitigation: | Medium (+) | Zero and positive impacts would be foregone. |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Medium (+) | Zero and positive impacts would be foregone. |
| Degree to which the impact can be avoided: | Medium | None |
| Degree to which the impact can be managed: | Medium | None |
| Degree to which the impact can be mitigated: | Not desirable to mitigate a positive impact. | Not applicable as there would be no impacts to mitigate. |

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| Proposed mitigation: | Not applicable | Not applicable |
| Residual impacts: | Not applicable | Not applicable |
| Cumulative impact post mitigation: | Not applicable | Not applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Not applicable | Not applicable |
| NOTE ON SIGNIFICANCE OF IMPACT: Note that although fuel would be used and emissions would be generated by the buses, the volume of fuel used, and number of emissions generated would be offset by that being saved as a result of decreased use of private transport. All MyCiti buses also use an ADBLue additive which significantly reduces the carbon fuel emissions. Furthermore, the depot has been designed to accommodate some flexibility of fuel type, and provision has been made to accommodate a percentage of electric buses, should the City of Cape Town decide to invest in that bus typology in future. | | |
| Nuisance Impacts- Noise (Jongens, 2021) | | |
| Potential impact and risk: | Impact of noise on nearest noise sensitive receptors (i.e., the Bonny town informal settlement) | |
| Nature of impact: | Neutral | No impact |
| Extent and duration of impact: | Medium (on site and surrounds) and long-term | Not applicable |
| Consequence of impact or risk: | Noise nuisance/irritation to Bonnytoun settlement residents | Not applicable |
| Probability of occurrence: | Medium | Not applicable |
| Degree to which the impact may cause irreplaceable loss of resources: | None | Not applicable |
| Degree to which the impact can be reversed: | Low | Not applicable |
| Indirect impacts: | None | Not applicable |
| Cumulative impact prior to mitigation: | None | Not applicable |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Negligible | Not applicable |
| Degree to which the impact can be avoided: | High- already avoided through proposed layout which keeps buses an appropriate distance from the settlement | Not applicable |
| Degree to which the impact can be managed: | High- already managed through intended use of sight to limit number of buses to 202, This would require that no more than 10 bus movements occur per respective 10 minute periods or one bus movement per minute on the trajectory nearest to the western boundary of the proposed bus depot site. | Not applicable |
| Degree to which the impact can be mitigated: | Not Applicable | Not applicable as there would be no impacts to mitigate. |
| Proposed mitigation: | Not Applicable | Not applicable |
| Residual impacts: | Not Applicable | Not applicable |
| Cumulative impact post mitigation: | Not Applicable | Not applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Not Applicable | Not applicable |
| NOTE ON SIGNIFICANCE OF IMPACT: Impacts of noise have been assessed to be negligible (Jongens, 2021). | | |
| Resource-Use (assessed by EAP) | | |
| Potential impact and risk: | Depletion of resources through use of resources such as energy and water and production of waste as a result of operational activities at the proposed bus depot | |
| Nature of impact: | Use of natural resources, such as water, resources for the generation of energy, as well as additional pressure on landfills as a result of waste generation | No impact |
| Extent and duration of impact: | Widespread beyond site boundary, long-term | Widespread (beyond site boundary) duration not applicable as there will be no impact (i.e., no operation of the proposed development as the development would not exist) |
| Consequence of impact or risk: | Depletion in resources | Not Applicable |
| Probability of occurrence: | Definite | Not Applicable |
| Degree to which the impact may cause irreplaceable loss of resources: | High | Not Applicable |

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| Degree to which the impact can be reversed: | Irreversible once used | Not Applicable |
| Indirect impacts: | Fewer resources available | Not Applicable |
| Cumulative impact prior to mitigation: | Very low (-) | Not Applicable |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | Not Applicable |
| Degree to which the impact can be avoided: | Low | Not Applicable |
| Degree to which the impact can be managed: | Medium | Not Applicable |
| Degree to which the impact can be mitigated: | Medium | Not Applicable |
| Proposed mitigation: | Implementation of the specifications in this regard contained in the EMPr (Appendix H), for the operational phase. | Not Applicable |
| Residual impacts: | Controlled use of resources and avoidance or minimisation of wastage | Not Applicable |
| Cumulative impact post mitigation: | Very low (-) | Not Applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | Not Applicable |
| NOTE ON SIGNIFICANCE OF IMPACT: Subsequent to mitigation, the residual impacts are deemed to be insignificant | | |
| Traffic (assessed by the EAP using information provided in Clark & Liebenberg, 2021) | | |
| Potential impact and risk: | Potential peak-hour traffic congestion in the local network as a result of the additional trips during the AM and PM peak hours resulting from the proposed development and potential disruptions as a result of the access points proposed. | |
| Nature of impact: | Negative | Note that traffic in the local network currently operates at acceptable levels of service – this would not change with the no-go |
| Extent and duration of impact: | Medium (within site and in the local area) Long-term | Medium (within site and in the local area) Long-term |
| Consequence of impact or risk: | Potential negative effect on levels of service of local intersections, resulting in longer queueing times for motorists | Some congestion at the right-turn movement on the southern Rosmead Avenue approach |
| Probability of occurrence: | Possible | Definite |
| Degree to which the impact may cause irreplaceable loss of resources: | None | None |
| Degree to which the impact can be reversed: | Irreversible during peak time, but not an impact in off-peak traffic | Irreversible during peak time, but not an impact in off-peak traffic |
| Indirect impacts: | Potential knock-on/ slowing of traffic in the network beyond roads adjacent to the site | Potential knock-on/ slowing of traffic in the network beyond roads adjacent to the site |
| Cumulative impact prior to mitigation: | Low (-) | Negligible |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | Negligible |
| Degree to which the impact can be avoided: | Low | Not applicable |
| Degree to which the impact can be managed: | Medium | Not applicable |
| Degree to which the impact can be mitigated: | Low | Not applicable |
| Proposed mitigation: | As per mitigation measured in the EMPr and noted in section 12 of this report (there are limited recommendations in terms of traffic as no network upgrades are required (Clark & Liebenberg, 2021), but these are indicated. Note that the impacts are anticipated to be low as Clark & Liebenberg (2021) confirm that the proposed development will not compromise the acceptable levels of service of the local network during peak traffic times, adding that currently experienced congestion would not change as result of the proposed development. | Not applicable |

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| | Note, however, that the findings of the traffic impact assessment (Appendix G(e)) have based the assessment on the preferred alternative for the proposed development as proposed, with access points. Therefore, the only applicable mitigation measure would be to develop the proposed as described in this Basic Assessment Report (and the Traffic Impact Assessment). Note that mitigation would occur during the planning phase. | |
| Residual impacts: | Continued experience of roads at acceptable levels, similar to present day | Not applicable |
| Cumulative impact post mitigation: | Low (-) | Not applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | Not applicable |
| NOTE ON SIGNIFICANCE OF IMPACT: Clark & Liebenberg (2021) confirm that all intersections in the study area will operate adequately following the implementation of the development and the M5 / Wetton Road Interchange. Analyses indicates that the Wetton Road / Rosmead Avenue intersection currently operate well, with the exception of the right-turn movement on the southern Rosmead Avenue approach, but that constraints at the Wetton Road / Rosmead Avenue intersection preclude any feasible upgrades from being proposed (Clark & Liebenberg (2021)). | | |
| Heritage (Lavin, 2021) | | |
| Potential impact and risk: | Impacts to significant heritage resources | |
| Nature of impact: | Destruction of significant heritage resources | None |
| Extent and duration of impact: | Permanent, within site boundary | None |
| Consequence of impact or risk: | Permanent loss of context of significant heritage resources | None |
| Probability of occurrence: | Unlikely | No occurrence of construction activities |
| Degree to which the impact may cause irreplaceable loss of resources: | Unlikely | None |
| Degree to which the impact can be reversed: | Irreversible | None |
| Indirect impacts: | Unlikely | None |
| Cumulative impact prior to mitigation: | None anticipated | None |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | None |
| Degree to which the impact can be avoided: | No impact anticipated | Not Applicable |
| Degree to which the impact can be managed: | No impact anticipated | Not Applicable |
| Degree to which the impact can be mitigated: | No impact anticipated | Not Applicable |
| Proposed mitigation: | No impact anticipated | Not Applicable |
| Residual impacts: | No impact anticipated | Not Applicable |
| Cumulative impact post mitigation: | No impact anticipated | Not Applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | None | Not Applicable |
| NOTE ON SIGNIFICANCE OF IMPACT: Lavin (March 2021) notes that there would be no impact on heritage resources. This is echoed by HWC in their response to the NID (refer to Appendix E1). | | |
| Ecological- Freshwater (Steytler & Mugabe, 2021) | | |
| Potential impact and risk: | Disturbance of wetland habitat | |
| Nature of impact: | Disturbance of wetland habitat | |
| Extent and duration of impact: | Local and medium -term (with mitigation) | Local and long-term |
| Consequence of impact or risk: | Negative | Negative |
| Probability of occurrence: | Improbable (with mitigation) | Probable |
| Degree to which the impact may cause irreplaceable loss of resources: | Low (while there is remnant natural habitat and as such may contain some irreplaceable resources, the minor level of disturbance is not anticipated to cause any actual loss of any resources) | Medium |
| Degree to which the impact can be reversed: | Full reversible | Medium (habitat degradation can be reversed through rehabilitation) |

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| Indirect impacts: | NA | NA |
| Cumulative impact prior to mitigation: | High | High |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | Medium (-) |
| Degree to which the impact can be avoided: | Medium | Low (continued environmental degradation in an inevitable trend for urban biodiversity due to poor resilience of urban ecosystems and significant edge effects) |
| Degree to which the impact can be managed: | Medium | Medium (while the landowner could undertake measures to manage ongoing degradation this has not occurred, presumably due to lack of resources) |
| Degree to which the impact can be mitigated: | Medium | Medium (while the landowner could undertake measures to manage ongoing degradation this has not occurred, presumably due to lack of resources) |
| Proposed mitigation: | Refer to freshwater measures in the EMPr and to section I2 of this report. | Mitigation is not applicable under the no-go alternative |
| Residual impacts: | Very low (-) | Medium (-) |
| Cumulative impact post mitigation: | High | High |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Very Low (-) | Medium (-) |
| NOTE ON SIGNIFICANCE OF IMPACT: Ecological impacts were assessed by Steytler & Mugabe (2021) and are included in Appendix G (a). Disturbance of the remaining wetland habitat as a result of the edge effects of activities at the proposed depot (such as windblown litter and spread of invasive alien plants) would be likely given the proximity of the remaining wetland to the depot. Therefore, without mitigation the disturbance of the remaining wetland habitat during the operational phase is rated to be LOW (-ve) which can be reduced to VERY LOW (-ve) with the implementation of the recommended mitigation measures | | |
| Ecological- Freshwater (Steytler & Mugabe, 2021) | | |
| Potential impact and risk: | Alteration of flow regime | |
| Nature of impact: | Alteration of flow regime | |
| Extent and duration of impact: | Local and long-term | Local and long-term |
| Consequence of impact or risk: | Negative | Negative |
| Probability of occurrence: | Improbable (with mitigation) | Probable |
| Degree to which the impact may cause irreplaceable loss of resources: | Low | Medium |
| Degree to which the impact can be reversed: | Reversible | Medium (habitat degradation can be reversed through rehabilitation) |
| Indirect impacts: | NA | NA |
| Cumulative impact prior to mitigation: | High | High |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | Medium (-) |
| Degree to which the impact can be avoided: | Low (increased stormwater run-off is an unavoidable consequence of urban development) | Low (continued environmental degradation in an inevitable trend for urban biodiversity due to poor resilience of urban ecosystems and significant edge effects) |
| Degree to which the impact can be managed: | Medium | Medium (while the landowner could undertake measures to manage ongoing degradation this has not occurred, presumably due to lack of resources) |
| Degree to which the impact can be mitigated: | Low | Medium (while the landowner could undertake measures to manage ongoing degradation this has not occurred, |

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| | | presumably due to lack of resources) |
| Proposed mitigation: | Refer to freshwater measures in the EMPr and to section I2 of this report. | Mitigation is not applicable under the no-go alternative |
| Residual impacts: | Very low (-) | Medium (-) |
| Cumulative impact post mitigation: | High | High |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Very low (-) | Medium (-) |
| NOTE ON SIGNIFICANCE OF IMPACT: Ecological impacts were assessed by Steytler & Mugabe (2021) and are included in Appendix G (a). The extent of hard surfaces that will be created as a result of the IRT bus depot (comprising buildings and other structures with impermeable surfaces including the parking areas and roads) will increase stormwater run-off across the depot site which would result in increased flow within the receiving wetland and cause an increase in flood peaks. However, given the CCT Policy for managing urban stormwater impacts (2009) which makes it mandatory that post-development stormwater flows would not be greater than pre-development flows and that infiltration is encouraged, it can be assumed that the intensity of the impact would be LOW (i.e., mitigation is mandatory). The impact significance for the alteration of flow regime is, therefore, rated as LOW (negative) without mitigation, and VERY LOW (negative) with mitigation. Mitigation would be in the form of rainwater harvesting to reduce flows from rooftops. | | |
| Ecological- Freshwater (Steytler & Mugabe, 2021) | | |
| Potential impact and risk: | Loss of biota | |
| Nature of impact: | Loss of biota | |
| Extent and duration of impact: | Local and permanent | Local and long-term |
| Consequence of impact or risk: | Negative | Negative |
| Probability of occurrence: | Improbable (with mitigation) | Probable |
| Degree to which the impact may cause irreplaceable loss of resources: | Low (the severely degraded portion is unlikely to contain irreplaceable resources) | Medium |
| Degree to which the impact can be reversed: | Irreversible | Medium (habitat degradation can be reversed through rehabilitation) |
| Indirect impacts: | NA | NA |
| Cumulative impact prior to mitigation: | High | High |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Medium (-) | Medium (-) |
| Degree to which the impact can be avoided: | Low | Low (continued environmental degradation in an inevitable trend for urban biodiversity due to poor resilience of urban ecosystems and significant edge effects) |
| Degree to which the impact can be managed: | Medium | Medium (while the landowner could undertake measures to manage ongoing degradation this has not occurred, presumably due to lack of resources) |
| Degree to which the impact can be mitigated: | High | Medium (while the landowner could undertake measures to manage ongoing degradation this has not occurred, presumably due to lack of resources) |
| Proposed mitigation: | Refer to freshwater measures in the EMPr and to section I2 of this report. | Mitigation is not applicable under the no-go alternative |
| Residual impacts: | Low (-) | Medium (-) |
| Cumulative impact post mitigation: | High | High |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | Medium (-) |
| NOTE ON SIGNIFICANCE OF IMPACT: Ecological impacts were assessed by Steytler & Mugabe (2021) and are included in Appendix G (a). Given the possibility that <i>S. pantherinus</i> may utilise the site for dispersal and foraging, it is considered PROBABLE that <i>S. pantherinus</i> individuals would enter the depot site and be exposed to the risk of being crushed by busses and other vehicles that occur on-site. <i>S. pantherinus</i> would only be expected to disperse during the breeding season which is during the winter and spring months and only during rainy nights. The endangered threat status of the species escalates the intensity rating to MEDIUM with the result that the potential impact is rated to have a significance rating of MEDIUM (-ve). | | |
| Ecological- Botanical (NCC, 2021) - botanical impact associated with the spatial reduction of a degraded biodiversity corridor | | |

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| Potential impact and risk: | Destruction of (clearing) irreversibly degraded former CFSF site for the IRT Wynberg bus depot. Impact on broader area (corridor/patch effect), noting that the preferred alternative is partial destruction. | |
| Nature of impact: | Negative | Neutral |
| Extent and duration of impact: | Local (site) and short-term | Not applicable |
| Consequence of impact or risk: | Negligible | Not applicable |
| Probability of occurrence: | Improbable | Not applicable |
| Degree to which the impact may cause irreplaceable loss of resources: | Impact will not cause loss of resources | Resources will not be lost |
| Degree to which the impact can be reversed: | Not applicable- no impact | Not applicable |
| Indirect impacts: | Impact is already indirect | Not applicable |
| Cumulative impact prior to mitigation: | Low | Not applicable |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | No impact | Not applicable |
| Degree to which the impact can be avoided: | Not applicable- no impact | Not applicable |
| Degree to which the impact can be managed: | Not applicable- no impact | Not applicable |
| Degree to which the impact can be mitigated: | Not applicable- no impact | Not applicable |
| Proposed mitigation: | Not applicable- no impact | Not applicable |
| Residual impacts: | Not applicable- no impact | Not applicable |
| Cumulative impact post mitigation: | Not applicable- no impact | Not applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | No impact | Not applicable |
| NOTE ON SIGNIFICANCE OF IMPACT: Ecological impacts were assessed by NCC (2021) and are included in Appendix G(b). Owing to the transformed nature of the study area, specific location and surrounding land use, no associated loss of intact Cape Flats Sand Fynbos would occur as a result of reducing the corridor through the operational process if construction of the IRT Wynberg Bus Depot goes ahead. If there were areas of intact vegetation within or bordering the site, then there may be a loss of pollination potential between patches however this is not the case. Losing the swathes of exotic grass, weeds and IAPs on and around the site will not affect any important plant species found in the areas of concern at Kenilworth and/or Youngsfield. Regarding the no-go alternative, if the construction and associated destruction (removal) of vegetation on the site does not occur then the status quo and general degradation of the area will persist and continue to have no significant botanical impact on surrounding areas from a corridor point-of-view. It is thus not good but also not bad | | |
| Ecological- Botanical (NCC, 2021)- botanical impact associated with the change in local hydrology (surface hardening, excavation, runoff, stormwater pond) effecting nearby and critical CFSF areas | | |
| Potential impact and risk: | Botanical impact associated with the change in local hydrology effecting nearby indirect and critical CFSF areas through surface hardening | |
| Nature of impact: | Negative | Positive |
| Extent and duration of impact: | Local (site) and long-term | Impact will not occur |
| Consequence of impact or risk: | Slightly detrimental | Not applicable |
| Probability of occurrence: | Possible | Not applicable |
| Degree to which the impact may cause irreplaceable loss of resources: | Resources will not be lost | Resources will not be lost |
| Degree to which the impact can be reversed: | Partly reversible | Not applicable |
| Indirect impacts: | Not applicable, impact is already indirect | Not applicable |
| Cumulative impact prior to mitigation: | Medium to High (-) | Not applicable |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | Not applicable |
| Degree to which the impact can be avoided: | Medium | Not applicable |
| Degree to which the impact can be managed: | Medium | Not applicable |
| Degree to which the impact can be mitigated: | Medium | Not applicable |
| Proposed mitigation: | Engineers in consultation with geohydrologist incorporate adequate drainage measures to maintain groundwater seasonal recharge and flow. | Not applicable |
| Residual impacts: | Medium (-) | Not applicable |
| Cumulative impact post mitigation: | Medium (-) | Not applicable |

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| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | No impact | Not applicable |
| NOTE ON SIGNIFICANCE OF IMPACT: Ecological impacts were assessed by NCC (2021) and are included in Appendix G(b). The likelihood of the impact occurring is, 'Possible' but even less likely with the partial site development due to the reduced surface hardened area and based on the findings of GEOSS 2020 which indicates, 'Drop in groundwater levels in direct relation to the bus depot development site, is not anticipated to be significant as the post-treated water from the attenuation pond should be recharged back into the environment. Additionally, the primary aquifer as a whole, is recharged over an extensive area in comparison to the area of the development site'. This translates into a 'Low' significant impact on the basis of scale and likelihood and with mitigation there would be, 'No impact' expected. Regarding the no-go alternative, If no construction occurs then no impact will result, and the status quo remains as is. In this instance the site will continue to potentially play a role in local hydrological recharge and maintenance of water levels. | | |
| Ecological- Botanical (NCC, 2021)- Botanical impact on nearby sensitive areas resulting from spillage (oil leaks) and pollution (refuelling/wash area) runoff | | |
| Potential impact and risk: | Botanical impact on areas of CFSF resulting from spillage and pollution runoff | |
| Nature of impact: | Negative | Neutral |
| Extent and duration of impact: | Regional and short-term | Impact will not occur |
| Consequence of impact or risk: | Slightly detrimental | Not applicable |
| Probability of occurrence: | Improbable | Not applicable |
| Degree to which the impact may cause irreplaceable loss of resources: | Resources will not be lost | Resources will not be lost |
| Degree to which the impact can be reversed: | Partly reversible | Not applicable |
| Indirect impacts: | Not applicable, impact is already indirect | Not applicable |
| Cumulative impact prior to mitigation: | Medium (-) | Not applicable |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | No impact | Not applicable |
| Degree to which the impact can be avoided: | High | Not applicable |
| Degree to which the impact can be managed: | High | Not applicable |
| Degree to which the impact can be mitigated: | High | Not applicable |
| Proposed mitigation: | As prescribed in GEOSS Report No. 2020/12-01 | Not applicable |
| Residual impacts: | Low | Not applicable |
| Cumulative impact post mitigation: | Medium (-) | Not applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | No impact | Not applicable |
| NOTE ON SIGNIFICANCE OF IMPACT: Ecological impacts were assessed by NCC (2021) and are included in Appendix G(b). Pollution runoff is not expected to occur and be able to affect nearby areas of CFSF, especially with mitigation measures (as per GEOSS Report No. 2020/12-01) in place, thus there is 'no impact' in terms of botanical impacts expected. Regarding the no-go alternative, If no construction occurs then no impact will result, and the status quo remains as is in terms of pollution runoff. | | |
| Ecological- Botanical (NCC, 2021)- Positive botanical impact resulting from a reduction in polluted leachate emanating from the site | | |
| Potential impact and risk: | Botanical impacts resulting from a reduction in polluted leachate emanating from the site | |
| Nature of impact: | Positive (+) | Negative |
| Extent and duration of impact: | Local (site) and long-term | Regional and long-term |
| Consequence of impact or risk: | Slightly beneficial | Moderately detrimental |
| Probability of occurrence: | Possible | Likely |
| Degree to which the impact may cause irreplaceable loss of resources: | Resources will not be lost | Resources may be partly destroyed |
| Degree to which the impact can be reversed: | Not applicable | Partly reversible |
| Indirect impacts: | Not applicable, impact is already indirect | Impact is indirect (degradation of surrounding groundwater quality and possible effect on plants) |
| Cumulative impact prior to mitigation: | Not applicable | Moderate detrimental / Medium (-) |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (+) | Medium to high (-) |

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| Degree to which the impact can be avoided: | Not applicable | Not applicable |
| Degree to which the impact can be managed: | Not applicable | Not applicable |
| Degree to which the impact can be mitigated: | Not applicable | Partly mitigatable |
| Proposed mitigation: | Not applicable | The covering of the recent fill with hardstanding materials and resultant reduction in infiltration is considered sufficient to mitigate these risks. |
| Residual impacts: | Not applicable | Not applicable |
| Cumulative impact post mitigation: | Not applicable | Not applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Not applicable | Low (-) |
| NOTE ON SIGNIFICANCE OF IMPACT: Ecological impacts were assessed by NCC (2021) and are included in Appendix G(b). Given the presence of an historical domestic waste body at depth beneath the site, and proximity to a wetland, the abstraction of groundwater at the site for any use is to be prohibited' (O'Brien, 2020). The leachate emanating from the site is thus understood to be a negative and therefore if this can be improved or reduced by essentially sealing the site then this is a positive impact. Due to the size of the site and distance between the site and nearby areas of conservation concern it is not likely to make much of a positive difference for the vegetation of concern, thus a 'low' but will be 'environmentally beneficial' nonetheless. Regarding the no-go alternative, If no construction occurs then no positive impact will result and the <i>status quo</i> remains as is in terms of pollution leachate, 'Given the presence of an historical domestic waste body at depth beneath the site, and proximity to a wetland, the abstraction of groundwater at the site for any use is to be prohibited' (O'Brien, 2020). | | |
| Ecological- Faunal (Jackson & Martin, 2021)- Disturbance of faunal species due to use of project area during operation | | |
| Potential impact and risk: | Disturbance of faunal species due to operation of the IRT depot. | |
| Nature of impact: | Negative | No impact |
| Extent and duration of impact: | Local and permanent | Not Applicable |
| Consequence of impact or risk: | Slight | Not Applicable |
| Probability of occurrence: | Probable | Not Applicable |
| Degree to which the impact may cause irreplaceable loss of resources: | Resource will not be lost | Not Applicable |
| Degree to which the impact can be reversed: | The activity will lead to an impact that can be reversed | Not Applicable |
| Indirect impacts: | No known indirect impacts | Not Applicable |
| Cumulative impact prior to mitigation: | The project area is in an urban area, but no other developments are known to remove habitat in the immediate vicinity | Not Applicable |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | Not Applicable |
| Degree to which the impact can be avoided: | Impact cannot be avoided | Not Applicable |
| Degree to which the impact can be managed: | Impact cannot be minimised | Not Applicable |
| Degree to which the impact can be mitigated: | Achievable | Not Applicable |
| Proposed mitigation: | Refer to faunal measures in the EMPr and to section I2 of this report. | Not Applicable |
| Residual impacts: | Despite mitigation, the operation of the IRT Depot will create a disturbance but this will not be significantly more than what already exists. | Not Applicable |
| Cumulative impact post mitigation: | None | Not Applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | Not Applicable |
| NOTE IN IMPACT: The establishment of the IRT Depot on the site will increase the number of people and vehicles accessing and using the area thus increased noise and disturbances will occur. The project area already experiences a large amount of disturbance due to its proximity to busy roads namely Wetton Road and the M5 highway. The fauna that occurs onsite are typically generalist species and are already habituated to the disturbance. | | |
| Ecological- Faunal (Jackson & Martin, 2021)- No-go alternative and provision of ecological function and a corridor to fauna | | |
| Potential impact and risk: | No-go alternative and provision of ecological function and a corridor to fauna | |
| Nature of impact: | Not applicable | Negative |
| Extent and duration of impact: | | Permanent and localised |
| Consequence of impact or risk: | | Moderate |

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| Probability of occurrence: | | Probable |
| Degree to which the impact may cause irreplaceable loss of resources: | | The resource will be lost without intervention |
| Degree to which the impact can be reversed: | | The activity will lead to an impact that can be reversed |
| Indirect impacts: | | The proposed project will be placed at another site and faunal impacts at that site is unknown. |
| Cumulative impact prior to mitigation: | | The site will continue to be used as a dumping ground and further loss to the already compromised functionality of the less degraded wetland habitat will continue. |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | | Low (-) |
| Degree to which the impact can be avoided: | | Not applicable |
| Degree to which the impact can be managed: | | Not applicable |
| Degree to which the impact can be mitigated: | | Not applicable |
| Proposed mitigation: | | Not applicable |
| Residual impacts: | | Not applicable |
| Cumulative impact post mitigation: | | Not applicable |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Not applicable | |
| NOTE ON IMPACT: The project area and immediate surrounds are considered highly transformed, degraded, and subject to historic infilling and current dumping of rubble and refuse. The degraded area offers little ecological function, and the less degraded area maintains some functionality albeit very low. It may function as a corridor but if the portion of degraded wetland were to be lost, this would have little impact on the function of the corridor. It is likely that the site will continue to be used as a dumping ground despite the Wynberg Dump located nearby. The addition of the Wynberg IRT Depot is considered to be more beneficial than the potential negative impact on fauna, there has been no evidence to date that the WLT breeds onsite. The project area will continue to degrade and what little functionality the less degraded wetland habitat has, may be lost and is unlikely to recover without assistance and maintenance. | | |
| Groundwater (Naicker & Muller, 2021) | | |
| Potential impact and risk: | Fuel dispensing operations and the refilling of underground storage tanks | |
| Nature of impact: | Negative | No impact, as it relates to components of the proposed depot that do not exist on site at present |
| Extent and duration of impact: | Local and Medium-term (project life) | Not applicable |
| Consequence of impact or risk: | Contaminated groundwater and surrounding environment | Not applicable |
| Probability of occurrence: | Highly probable | Not applicable |
| Degree to which the impact may cause irreplaceable loss of resources: | Marginal loss of resource | Not applicable |
| Degree to which the impact can be reversed: | Partly reversible | Not applicable |
| Indirect impacts: | Physical, chemical, and biological systems | Not applicable |
| Cumulative impact prior to mitigation: | High (-) | None |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | High (-) | None |
| Degree to which the impact can be avoided: | Medium | Not applicable |
| Degree to which the impact can be managed: | High | Not applicable |
| Degree to which the impact can be mitigated: | Can be mitigated | Not applicable |
| Proposed mitigation: | Refer to groundwater measures in the EMPr and to section I2 of this report. | Not applicable |

| | | |
|--|---|---|
| Residual impacts: | Some degree of wetland disturbance with the installation of monitoring boreholes. Some alteration of soil characteristics within the site boundary. | Not applicable |
| Cumulative impact post mitigation: | Medium – Low (-) | None |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Medium – Low (-) | None |
| NOTE ON IMPACT: Groundwater impacts have been assessed by Naicker & Muller (2021). The full report can be found in Appendix G(g). | | |
| Groundwater (Naicker & Muller, 2021) | | |
| Potential impact and risk: | Drainage of onsite chemicals off the depot surface and into the primary aquifer via stormwater | |
| Nature of impact: | Negative | No impact, as it relates to components of the proposed depot that do not exist on site at present |
| Extent and duration of impact: | Local and medium (project life) | Not applicable |
| Consequence of impact or risk: | Contaminated groundwater and surrounding environment | Not applicable |
| Probability of occurrence: | High probable | Not applicable |
| Degree to which the impact may cause irreplaceable loss of resources: | Marginal loss of resource | Not applicable |
| Degree to which the impact can be reversed: | Partly reversible | Not applicable |
| Indirect impacts: | Chemical, biological systems | Not applicable |
| Cumulative impact prior to mitigation: | High (-) | None |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | High (-) | None |
| Degree to which the impact can be avoided: | Medium | Not applicable |
| Degree to which the impact can be managed: | Medium | Not applicable |
| Degree to which the impact can be mitigated: | Can be mitigated | Not applicable |
| Proposed mitigation: | Refer to groundwater measures in the EMPr and to section I2 of this report. | Not applicable |
| Residual impacts: | Some degree of wetland disturbance with the installation of monitoring boreholes | Not applicable |
| Cumulative impact post mitigation: | Low to Medium (-) | None |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low to Medium (-) | None |
| NOTE ON IMPACT: Groundwater impacts have been assessed by Naicker & Muller (2021). The full report can be found in Appendix G(g). | | |
| Groundwater (Naicker & Muller, 2021) | | |
| Potential impact and risk: | Groundwater contamination from leakage associated with the spray booth and workshops | |
| Nature of impact: | Negative | No impact, as it relates to components of the proposed depot that do not exist on site at present |
| Extent and duration of impact: | Local and medium (life of project) | Not applicable |
| Consequence of impact or risk: | Contaminated groundwater and surrounding environment | Not applicable |
| Probability of occurrence: | Highly probable | Not applicable |
| Degree to which the impact may cause irreplaceable loss of resources: | Marginal loss of resource | Not applicable |
| Degree to which the impact can be reversed: | Partly reversible | Not applicable |
| Indirect impacts: | Chemical, biological systems | Not applicable |
| Cumulative impact prior to mitigation: | High (-) | None |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | High (-) | None |

| | | |
|--|--|---|
| Degree to which the impact can be avoided: | Medium | Not applicable |
| Degree to which the impact can be managed: | Medium | Not applicable |
| Degree to which the impact can be mitigated: | Can be mitigated | Not applicable |
| Proposed mitigation: | Refer to groundwater measures in the EMPr and to section I2 of this report. | Not applicable |
| Residual impacts: | Some degree of wetland disturbance with the installation of monitoring boreholes | Not applicable |
| Cumulative impact post mitigation: | Low to Medium (-) | None |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low to Medium (-) | None |
| NOTE ON IMPACT: Groundwater impacts have been assessed by Naicker & Muller (2021). The full report can be found in Appendix G(g) | | |
| Groundwater (Naicker & Muller, 2021) | | |
| Potential impact and risk: | Groundwater contamination from drainage of contaminants from buses such as oil during washing, into shallow subsurface- long term risk | |
| Nature of impact: | Negative | No impact, as it relates to components of the proposed depot that do not exist on site at present |
| Extent and duration of impact: | Local and medium (project life) | Not applicable |
| Consequence of impact or risk: | Contaminated groundwater and surrounding environment | Not applicable |
| Probability of occurrence: | Highly probable | Not applicable |
| Degree to which the impact may cause irreplaceable loss of resources: | Marginal loss of resource | Not applicable |
| Degree to which the impact can be reversed: | Partly reversible | Not applicable |
| Indirect impacts: | Chemical and biological systems | Not applicable |
| Cumulative impact prior to mitigation: | High (-) | None |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | High (-) | None |
| Degree to which the impact can be avoided: | Medium | Not applicable |
| Degree to which the impact can be managed: | High | Not applicable |
| Degree to which the impact can be mitigated: | Can be mitigated | Not applicable |
| Proposed mitigation: | Refer to groundwater measures in the EMPr and to section I2 of this report. | Not applicable |
| Residual impacts: | Some degree of wetland disturbance with the installation of monitoring boreholes | Not applicable |
| Cumulative impact post mitigation: | Low to Medium (-) | None |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low to Medium (-) | None |
| NOTE ON IMPACT: Groundwater impacts have been assessed by Naicker & Muller (2021). The full report can be found in Appendix G(g). | | |
| Groundwater (Naicker & Muller, 2021) | | |
| Potential impact and risk: | Groundwater contamination from drainage of contaminants from the bus parking area, into the shallow subsurface | |
| Nature of impact: | Negative | No impact, as it relates to components of the proposed depot that do not exist on site at present |
| Extent and duration of impact: | Local and medium (project life) | Not applicable |
| Consequence of impact or risk: | Contaminated groundwater and surrounding environment (possible damage to ecological systems dependent in shallow groundwater) | Not applicable |
| Probability of occurrence: | Highly probable | Not applicable |
| Degree to which the impact may cause irreplaceable loss of resources: | Marginal loss of resource | Not applicable |

| | | |
|---|--|---|
| Degree to which the impact can be reversed: | Partly reversible | Not applicable |
| Indirect impacts: | Chemical and biological systems | Not applicable |
| Cumulative impact prior to mitigation: | High (-) | None |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | High (-) | None |
| Degree to which the impact can be avoided: | Medium | Not applicable |
| Degree to which the impact can be managed: | Medium | Not applicable |
| Degree to which the impact can be mitigated: | Can be mitigated | Not applicable |
| Proposed mitigation: | Refer to groundwater measures in the EMPr and to section I2 of this report. | Not applicable |
| Residual impacts: | Some degree of wetland disturbance with the installation of monitoring boreholes | Not applicable |
| Cumulative impact post mitigation: | Low to medium (-) | None |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low to Medium (-) | None |
| NOTE ON IMPACT: Groundwater impacts have been assessed by Naicker & Muller (2021). The full report can be found in Appendix G(g). | | |
| Groundwater (Naicker & Muller, 2021) | | |
| Potential impact and risk: | Reduced groundwater recharge into the aquifer due to developed surface | |
| Nature of impact: | Negative | No impact, as it relates to components of the proposed depot that do not exist on site at present |
| Extent and duration of impact: | Local and medium (life of project) | Not applicable |
| Consequence of impact or risk: | Reduced groundwater recharge into the primary aquifer and potentially detrimental consequences to immediate surrounding environment dependent on shallow groundwater | Not applicable |
| Probability of occurrence: | Highly probable | Not applicable |
| Degree to which the impact may cause irreplaceable loss of resources: | Marginal loss of resource | Not applicable |
| Degree to which the impact can be reversed: | Partly reversible | Not applicable |
| Indirect impacts: | Physical, chemical, and biological systems | Not applicable |
| Cumulative impact prior to mitigation: | Medium (-) | None |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Medium (-) | None |
| Degree to which the impact can be avoided: | High | Not applicable |
| Degree to which the impact can be managed: | High | Not applicable |
| Degree to which the impact can be mitigated: | Can be mitigated | Not applicable |
| Proposed mitigation: | Refer to groundwater measures in the EMPr and to section I2 of this report. | Not applicable |
| Residual impacts: | Some degree of wetland disturbance with the installation of monitoring boreholes | Not applicable |
| Cumulative impact post mitigation: | Low to Medium (-) | None |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low to Medium (-) | None |
| NOTE ON IMPACT: Groundwater impacts have been assessed by Naicker & Muller (2021). The full report can be found in Appendix G(g). The cumulative impact post-mitigation This impact is restricted to the impermeable paving surface area. Therefore, the impact on total recharge is not anticipated. Groundwater monitoring will confirm water level trends over time. Recharge back into wetland from the attenuation pond should be achieved and thus the effect is local. The Cape Flats aquifer is recharged over a significantly larger area than the area of the proposed development site. Reduction in recharge is thus deemed to be negligible in relation to the primary aquifer as a whole | | |
| MHI Risk (Thackwray, 2021) | | |

| | | |
|--|--|---|
| Potential impact and risk: | Risk of pool fires on site (at refuelling area) (i.e., through diesel tank failure, loading hose rupture of diesel road tanker, loading hose leak at diesel road tanker, tank failure of diesel road tanker, hose rupture at curb-side pump) | |
| Nature of impact: | Local, within the site boundary and long-term | No impact, as it relates to components of the proposed depot that do not exist on site at present |
| Extent and duration of impact: | Low | Not applicable |
| Consequence of impact or risk: | Burns to people or fire damage to structures | Not applicable |
| Probability of occurrence: | Low | Not applicable |
| Degree to which the impact may cause irreplaceable loss of resources: | High for hard to people, low for damage to structures | Not applicable |
| Degree to which the impact can be reversed: | Medium | Not applicable |
| Indirect impacts: | NA | Not applicable |
| Cumulative impact prior to mitigation: | Neutral (no risk beyond site limits) | None |
| Significance rating of impact prior to mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Low (-) | None |
| Degree to which the impact can be avoided: | High | Not applicable |
| Degree to which the impact can be managed: | High | Not applicable |
| Degree to which the impact can be mitigated: | High | Not applicable |
| Proposed mitigation: | Refer to MHI measures in the EMPr and to section I2 of this report. | Not applicable |
| Residual impacts: | Acceptable levels of risk | Not applicable |
| Cumulative impact post mitigation: | None | None |
| Significance rating of impact after mitigation (e.g., Low, Medium, Medium-High, High, or Very-High) | Very Low (-) | None |
| NOTE ON IMPACT: Risk impacts have been assessed by Thackwray (2021). | | |

It is not the intention of the Applicant to decommission the proposed development as it would provide permanent connectivity/linkages within the greater IRT system. However, should the facility be decommissioned (i.e., through the removal of the infrastructure) the impacts would be similar to the following construction-related impacts discussed above:

- Socio-Economic aspects: Creation of employment opportunities as a result of development/ construction of the proposed development.
- Socio-economic: safety and security- Generation of continuous activities and presence on the site which would reduce the likelihood of illegal occupation of the site as well as the use of the site for illegal activities and suspicious behaviour.
- Nuisance impacts on surrounding land users- dust and noise: The land clearing and other construction activities will result in the generation of dust and noise which may be a nuisance to surrounding land users whilst construction is ongoing.
- Visual aspects: Visual impacts associated with construction activities (machinery, vehicle movement, site camp, signage, lighting and temporary services, wind-blown litter, erosion, and exposed surfaces).
- Use of natural resources: Construction of the development and the associated use of natural resources, such as water, resources for the generation of energy, construction materials etc.
- Traffic aspects- Disturbance to local traffic conditions (both vehicular and pedestrian) as a result of construction vehicles accessing the sites during the construction activities.
- Cultural-historical aspects: Damage to cultural or heritage artefacts or landscapes as a result of construction activities. Noting that this is zero impact.
- Freshwater aspects: Disturbance of remaining wetland habitat.
- Freshwater aspects: Alteration of the natural flow regime
- Freshwater aspects: increased erosion and sedimentation
- Freshwater aspects: water quality impairment
- Freshwater aspects: loss of biota
- Groundwater aspects: Contamination as a result from dewatering machinery and activities

During the "decommissioning" phase, the geographical and physical impact on the surface drainage regime would be removed and a reduction in hardened surfaces would result in stormwater run-off similar to that of the present day.

Note that other impacts, such as the loss of various vegetation, loss of wetland habitat, faunal corridor, impact on the WLT, may be combatted during the "construction" phase should the site be rehabilitated with indigenous species but is it difficult to predict at present.

The following operational impacts would be foregone/no longer applicable and therefore neutralised:

- Socio-economic aspects: Employment opportunities

- Socio-economic aspects- improved accessibility: Provision of improved accessibility for previously disadvantaged communities with respect to employment, economic centres and places of education and recreation (note that foregoing this impact assumes that no other means of accessibility would be provided).
- Socio-economic: Public safety and security- Improvements to safety and security for all those accessing the area via vehicles or on foot.
- Reduction in emission of greenhouse gases: Operation of the proposed bus depot (i.e., the use of the route for public transport) would result in an increasing number of people making use of public transport over private transport. This would reduce the per capita emission of greenhouse gases in the surrounding community and beyond (note that this assumes that no other transportation technology would be implemented).
- Noise impacts to Bonnytown (noting that they would be negligible with the proposed depot)
- Resource Use: Depletion of resources through use of resources such as energy and water and production of waste as a result of operational activities at the proposed bus depot
- Traffic: Potential congestion during peak hour
- Heritage impacts: note that there would be no heritage impacts associated with decommissioning (Lavin, 2021)
- Freshwater aspects: Disturbance of wetland habitat
- Freshwater aspects: alteration of flow regime
- Freshwater aspects: loss of biota
- Faunal aspects: Disturbance of faunal species due to operation of the IRT depot
- Groundwater aspects: Fuel dispensing operations and the refilling of underground storage tanks
- Groundwater aspects: Drainage of onsite chemicals off the depot surface and into the primary aquifer via stormwater
- Groundwater aspects: Groundwater contamination from leakage associated with the spray booth and workshops
- Groundwater aspects: Groundwater contamination from drainage of contaminants from buses such as oil during washing, into shallow subsurface- long term risk
- Groundwater aspects: Groundwater contamination from drainage of contaminants from the bus parking area, into the shallow subsurface
- Groundwater aspects: Reduced groundwater recharge into the aquifer due to developed surface
- MHI Risk: Risk of pool fires on site (at refuelling area) (i.e., through diesel tank failure, loading hose rupture of diesel road tanker, loading hose leak at diesel road tanker, tank failure of diesel road tanker, hose rupture at curb-side pump).
-

Apart from typical construction activities in the unlikely event that the depot is decommissioned and deconstructed there are no expected botanical impacts associated with the IRT Wynberg Bus Depot from a decommissioning phase concern (NCC, 2021).

Refer to **Table 17** and **Table 18** for a summary of all impacts for all alternatives.

SUMMARY OF IMPACTS

Table 17 Summary of Planning, Design and Construction Phase Impacts

| PLANNING, DESIGN AND CONSTRUCTION PHASE IMPACTS: | | | | | | |
|---|---------------------------------|--------------------------------|---------------------------------|--------------------------------|---|--|
| ALTERNATIVES | Alternative 1 | | Alternative 2 (Preferred) | | No Go Alternative | |
| Impact: | Significance before mitigation: | Significance after mitigation: | Significance before mitigation: | Significance after mitigation: | Significance before mitigation: | Significance after mitigation: |
| ALTERING THE SURFACE DRAINAGE REGIME: The cut and fill activities and other earthworks that would be required to support development on the site would result in changes to the surface water flow pattern. | Medium (-) | Neutral | Medium (-) | Neutral | None | Not Applicable |
| SOCIO-ECONOMIC ASPECTS - ECONOMIC STIMULUS: Generation of local economic stimulus | Medium (+) | Medium (+) | Medium (+) | Medium (+) | Neutral and foregone positive impacts of alternative | Not applicable |
| SOCIO-ECONOMIC ASPECTS - SAFETY AND SECURITY: Generation of continuous activities and presence on the site which would reduce the likelihood of illegal occupation of the site as well as the use of the site for illegal activities and suspicious behaviour. | Medium (+) | Medium (+) | Medium (+) | Medium (+) | Medium (-) and foregone positive impacts of alternative | Not applicable |
| NUISANCE IMPACTS DUST AND NOISE: The land clearing and other construction activities will result in the generation of dust and noise which may be a nuisance to surrounding land users whilst construction is ongoing. | Low (-) | Very Low (-) | Low (-) | Very Low (-) | Zero | Not applicable |
| VISUAL ASPECTS: Visual impacts associated with construction activities (machinery, vehicle movement, site camp, signage, lighting and temporary services, wind-blown litter, erosion, and exposed surfaces) | Low (-) | Very Low (-) | Low (-) | Very Low (-) | Zero | Not applicable as there would be no impacts to mitigate. |
| USE OF NATURAL RESOURCES: Construction of the proposed development and the associated use of natural resources, such as water, resources for the generation of energy, construction materials etc. | Low (-) | Very low (-) | Low (-) | Very low (-) | Zero | Not applicable as there would be no impacts to mitigate. |
| TRAFFIC: Disturbance to local traffic conditions and safety for road users as a result of construction vehicles accessing the sites during the construction activities. | Medium (-) | Low (-) | Medium (-) | Low (-) | None | Not Applicable |
| HERITAGE ASPECTS: Destruction of significant heritage resources | Low | None | Low | None | None | Not Applicable |
| FRESHWATER ASPECTS: Loss of wetland habitat and function | Medium (-) | Low (-) | Medium (-) | Low (-) | None | Not Applicable |
| FRESHWATER ASPECTS: Disturbance of remaining wetland habitat | Low (-) | Very Low (-) | Low (-) | Very Low (-) | None | Not Applicable |
| FRESHWATER ASPECTS: Alteration of the natural flow regime | Low (-) | Very low (-) | Low (-) | Very low (-) | None | Not Applicable |
| FRESHWATER ASPECTS: Increased erosion and sedimentation | Low (-) | Very Low (-) | Low (-) | Very Low (-) | None | Not Applicable |
| FRESHWATER ASPECTS: Water quality impairment | Medium (-) | Very Low (-) | Medium (-) | Very Low (-) | None | Not Applicable |
| FRESHWATER ASPECTS: Loss of biota | Medium (-) | Very Low (-) | Medium (-) | Very Low (-) | None | Not Applicable |
| FRESHWATER ASPECTS: Improvement in water quality | Low (+) | Medium (+) | Low (+) | Medium (+) | None | Not Applicable |
| BOTANICAL ASPECTS: Potential loss of critically endangered CFSF 'vegetation type' (including stormwater pond area) for the IRT Wynberg bus depot (partial loss for preferred alternative- approx 48327m ²) | None/ no impact | No impact | None/ no impact | No impact | Low (-) | Low (-) |

| | | | | | | |
|--|----------------------|-------------------------|----------------------|-------------------------|----------------|------|
| FAUNAL ASPECTS: Loss of extent of degraded depression wetland fauna habitat | Low (-) | Low (+) | Low (-) | Low (-) | | |
| FAUNAL ASPECTS: Loss of extent of less degraded depression wetland fauna habitat | Low (-) | Low (-) | NA | NA | Not applicable | None |
| FAUNAL ASPECTS: Reduced <i>S. Pantherina</i> foraging ground/corridor | High (-) | Moderate/ Medium (-) | High (-) | Moderate/ Medium (-) | Not applicable | None |
| GROUNDWATER ASPECTS: Contamination as a result from dewatering machinery and activities | Low to Medium (-) | Low (-) | Low to Medium (-) | Low (-) | | |

Table 18 Summary of Impacts for Operational Phase

| OPERATIONAL PHASE IMPACTS: | | | | | | |
|---|--|---------------------------------------|--|---------------------------------------|--|---------------------------------------|
| ALTERNATIVES | Alternative 1 | | Alternative 2 (Preferred) | | No Go Alternative | |
| Impact: | Significance before mitigation: | Significance after mitigation: | Significance before mitigation: | Significance after mitigation: | Significance before mitigation: | Significance after mitigation: |
| SOCIO-ECONOMIC ASPECTS - Creation of employment opportunities as a result of the operation of development. Additional indirect economic impacts (stimulus) will also be experienced. | Medium (+) | Medium (+) | Medium (+) | Medium (+) | Neutral and foregone positive impacts of alternative | Not applicable |
| SOCIO-ECONOMIC ASPECTS: Provision of improved accessibility for previously disadvantaged communities with respect to employment, economic centres and places of education and recreation. | Medium (+) | Medium (+) | Medium (+) | Medium (+) | Zero and positive impacts would be foregone. | None |
| SOCIO-ECONOMIC ASPECTS: Improvements to safety and security for all those accessing the area via vehicles or on foot. | High (+) | High (+) | High (+) | High (+) | Zero and positive impacts would be foregone. | None |
| POTENTIAL IMPACTS ASSOCIATED WITH REDUCTION IN EMISSION OF GREENHOUSE GASES: Operation of the proposed bus depot would result in an increasing number of people making use of public transport over private transport. This would reduce the per capita emission of greenhouse gases in the community. | Medium (+) | Not applicable | Medium (+) | Not applicable | Zero and positive impacts would be foregone. | Not applicable |
| NUISANCE IMPACTS- NOISE: Impact of noise on nearest noise sensitive receptors (i.e., the Bonny town informal settlement) | Negligible | Not Applicable | Negligible | Not Applicable | Not applicable | Not Applicable |
| RESOURCE-USE ASPECT: Depletion of resources through use of resources such as energy and water and production of waste as a result of operational activities at the proposed bus depot | Low (-) | Low (-) | Low (-) | Low (-) | Not Applicable | Not Applicable |
| TRAFFIC ASPECT: | Low (-) | Low (-) | Low (-) | Low (-) | Negligible | Not Applicable |
| HERITAGE ASPECTS: Impacts to significant heritage resources | Low (-) | None | Low (-) | None | None | Not Applicable |
| FRESHWATER ASPECTS: Disturbance of wetland habitat | Low (-) | Very Low (-) | Low (-) | Very Low (-) | Medium (-) | Medium (-) |
| FRESHWATER ASPECTS: Alteration of flow regime | Low (-) | Very low (-) | Low (-) | Very low (-) | Medium (-) | Medium (-) |
| FRESHWATER ASPECTS: Loss of biota | Medium (-) | Low (-) | Medium (-) | Low (-) | Medium (-) | Medium (-) |
| BOTANICAL ASPECTS: Destruction of (clearing) irreversibly degraded former CFSF site for the IRT Wynberg bus depot. Impact on broader area (corridor/patch effect), noting that the preferred alternative is partial destruction. | No impact | No impact | No impact | No impact | Not applicable | Not applicable |

| | | | | | | |
|--|----------------|-------------------|----------------|-------------------|--------------------|----------------|
| BOTANICAL ASPECTS: Botanical impact associated with the change in local hydrology effecting nearby indirect and critical CFSF areas through surface hardening | Low (-) | No impact | Low (-) | No impact | Not applicable | Not applicable |
| BOTANICAL ASPECTS: Botanical impact on areas of CFSF resulting from spillage and pollution runoff | No impact | No impact | No impact | No impact | Not applicable | Not applicable |
| BOTANICAL ASPECTS: Botanical impacts resulting from a reduction in polluted leachate emanating from the site | Low (+) | Not applicable | Low (+) | Not applicable | Medium to high (-) | Low (-) |
| FAUNAL ASPECTS: Disturbance of faunal species due to operation of the IRT depot. | Low (-) | Low (-) | Low (-) | Low (-) | Not Applicable | Not Applicable |
| FAUNAL ASPECTS: No-go alternative and provision of ecological function and a corridor to fauna | Not applicable | Not applicable | Not applicable | Not applicable | Low (-) | Not applicable |
| GROUNDWATER ASPECT: Fuel dispensing operations and the refilling of underground storage tanks | High (-) | Medium – Low (-) | High (-) | Medium – Low (-) | None | None |
| GROUNDWATER ASPECT: Drainage of onsite chemicals off the depot surface and into the primary aquifer via stormwater | High (-) | Low to Medium (-) | High (-) | Low to Medium (-) | None | None |
| GROUNDWATER ASPECT: Groundwater contamination from leakage associated with the spray booth and workshops | High (-) | Low to Medium (-) | High (-) | Low to Medium (-) | None | None |
| GROUNDWATER ASPECT: Groundwater contamination from drainage of contaminants from buses such as oil during washing, into shallow subsurface- long term risk | High (-) | Low to Medium (-) | High (-) | Low to Medium (-) | None | None |
| GROUNDWATER ASPECT: Groundwater contamination from drainage of contaminants from the bus parking area, into the shallow subsurface | High (-) | Low to Medium (-) | High (-) | Low to Medium (-) | None | None |
| GROUNDWATER ASPECT: Reduced groundwater recharge into the aquifer due to developed surface | Medium (-) | Low to Medium (-) | Medium (-) | Low to Medium (-) | None | None |
| MHI RISK ASPECT: Risk of pool fires on site (at refuelling area) (i.e., through diesel tank failure, loading hose rupture of diesel road tanker, loading hose leak at diesel road tanker, tank failure of diesel road tanker, hose rupture at curb-side pump) | Low (-) | Very Low (-) | Low (-) | Very Low (-) | None | None |

SECTION I: FINDINGS, IMPACT MANAGEMENT AND MITIGATION MEASURES

| | |
|----|---|
| 1. | Provide a summary of the findings and impact management measures identified by all Specialist and an indication of how these findings and recommendations have influenced the proposed development. |
|----|---|

There was a total of eight specialist studies undertaken for the proposed development of the proposed bus depot.

The specialist studies under the direction of the environmental team include:

- Agricultural Compliance Statement;
- Heritage Screener (and NID);
- Botanical/ Terrestrial Biodiversity Impact Assessment;
- Freshwater/ Aquatic Biodiversity Impact Assessment;
- Faunal Impact Assessment;
- MHI Risk Assessment;
- Noise Impact Assessment; and
- Groundwater Impact Assessment.

Note that the original signed specialist declarations for these studies will be appended to the final BAR submitted to the DEA&DP for decision-making.

Other technical specialist expertise contributing to this Basic Assessment process:

- Stormwater Assessment and resultant Stormwater Management Plan;
- Geotechnical Assessment;
- Transport/Traffic Assessment;
- Soil Contamination Assessment; and
- Landscaping.

AGRICULTURAL:

A site sensitivity verification and agricultural compliance statement has been compiled and it has been found that the entire site is of low sensitivity for agriculture, because of its non-agricultural zoning (Lanz, 2021). Furthermore, it is confirmed that, because the designation will effectively prevent future agricultural use of the land anyway, the proposed development cannot have an unacceptable negative impact on the agricultural production capability of the site (Lanz, 2021). Therefore, from an agricultural impact point of view, it is recommended that the development be approved (Lanz, 2021).

Response

Given the limited agricultural sensitivity of the site, there are no development constraints to consider in this regard. The selection of the preferred (and only) site has, therefore, avoided sensitive agricultural land.

Refer to the **Appendix G(d)** for the Agricultural Compliance Statement.

HERITAGE NID AND SCREENER:

Although the proposed development would fall within S38 (1) (c) (i), specialist and HWC consideration has confirmed that no sensitive heritage areas would be affected by the proposed development.

Response

A NID has been submitted to HWC and HWC has confirmed that no further assessment is necessary (refer to their comment in **Appendix E1**).

There is one item from HWC including in the EMP which would cover how to deal with potential heritage resource finds on site, however, no further response is required by the proposed development in this regard as it already avoids sensitivities within the greater context of the site.

BOTANICAL/TERRESTRIAL BIODIVERSITY IMPACT ASSESSMENT:

The site is completely (+99%) covered with exotic grass and invasive alien plants (IAP's), there is almost no indigenous species present (let alone cover) thus no species of conservation concern and being a non-ecologically managed open space within an urban environment there is no natural fire regime (NCC, 2021). The soil and water profiles are also highly transformed and therefore, as highly sensitive factors for the survival CFSF, this renders the site irreversibly modified and completely unsuitable for CFSF to persist (NCC, 2021).

The potential impacts of the proposed development (and associated alternatives) have been identified in NCC (2021) as follows:

- Direct Impact, Construction Phase: Potential loss of critically endangered CFSF 'vegetation type' through clearing for the IRT Wynberg bus depot site.
- Indirect Impacts (on the broader environment, as ecological support, buffering or corridor function), Operational phase impacts:
 - Potential botanical impact associated with the spatial reduction (208m) of a degraded biodiversity corridor reducing pollinator movement between patches.
 - Potential botanical impact associated with a change in local hydrology (surface hardening, excavation, water usage) indirectly affecting nearby critical CFSF areas.
 - Botanical impact resulting from spillage (oil leaks) and pollution (refuelling/wash area/fires) runoff from the depot infiltrating soil.
 - Botanical impact resulting from a reduction in polluted leachate emanating from the site (positive).
- Decommissioning Phase: Apart from typical construction activities in the unlikely event that the depot is decommissioned and deconstructed there are no expected botanical impacts associated with the IRT Wynberg Bus Depot from a decommissioning phase concern (NCC, 2021).

The primary cumulative impact is low (negative) for impacts related to clearing of vegetation and none for the supporting function of the site. Cumulative impacts for potential adverse impacts to hydrology and pollution from spills in medium (-).

From a botanical point-of-view, the, 'No-go' option would result in the *status quo* largely remaining with no botanical benefit or further loss from the site (NCC, 2021). If anything, further deterioration is likely (NCC, 2021).

The preferred alternative (i.e., Alternative 2) is supported by the botanist (NCC, 2021).

The highly-disturbed nature and fragmentation of the site renders it unsuitable for restoration of Cape Flats Sand Fynbos (NCC, 2021). The site is in an important spatial location in terms of the historical vegetation type but is far too degraded to ever recover (NCC, 2021). As per the CBA listing the site is, 'Irreversibly modified' even though attempts to improve this could perhaps offer some ecological improvement. From a botanical perspective therefore, the site does not appear to be of any concern in itself, and neither does it play a role in supporting the nearby areas of importance (in terms of providing a corridor) (i.e., Kenilworth Reserve and Youngsfield Military base) (it is insignificant or non-existent) (NCC, 2021). There are no significant direct or indirect negative botanical impacts associated with the proposed development (NCC, 2021). It will not affect groundwater levels, it will not affect pollination potential between patches and no vegetation or species of conservation concern will be lost as a result (NCC, 2021). The vegetation of the site itself is of no value and thus the direct loss of this through clearing is thus inconsequential (NCC, 2021). The only impact of concern is the environmental impact of various fluids such as oils and wash liquids leaching into the ground or storm water (NCC, 2021). Lastly, the capping of the site should reduce harmful leachate emanating from the site and thus a positive environmental impact should result even though the positive botanical effect of this is likely to be very minimal or unnoticeable (NCC, 2021). NCC (2021) has confirmed that the impact of the proposed development on the botanical corridor function would be low.

Response

The findings of NCC (2021) have influenced the proposed development as follows:

- Siting of the proposed development footprint in the most transformed areas of the site.
- Siting the proposed development as far west as possible in order to maintain a corridor to the east.
- Including indigenous CFSF in the landscape plan for the proposed development.
- Design specifications are included in the EMPr for mitigation against possible groundwater pollution (as per recommendations made by the groundwater specialists) as well as groundwater monitoring during the operational phase.
- Basic Assessment process (and this report) has also undertaken and considered further specialist input as required by NCC (2021) in the form of faunal, freshwater and groundwater assessment, particularly to confirm the impact and role of the site in nutrient buffering and groundwater recharge (i.e., the support role to nearby environmentally sensitive areas) and the extent to which it provides an important faunal movement corridor.

Given the findings of the botanist, no biodiversity offset is proposed, given the highly transformed nature of the land, and proven limited functions provided in terms of the current City of Cape Town BioNet designation. The botanist also makes no mention of biodiversity offset requirements. Refer to **Appendix G(b)** for the full report.

FRESHWATER/ AQUATIC BIODIVERSITY IMPACT ASSESSMENT AND RISK ASSESSMENT:

With regard to freshwater features on or near the site, there is a depression wetland identified on site and on the greater property within which the site sits. Whereas the entire study area is highly impacted and transformed, distinction is drawn between more sensitive (less degraded) and less sensitive (degraded) portions on the basis of remnant natural habitat and degree of soil disturbance (i.e., dumped waste and infilling) (Steytler & Mugabe, 2021). These two markedly differing portions of the wetland have been categorised as 'less degraded' and 'degraded' (Steytler & Mugabe, 2021). The development footprint for the preferred alternative for the proposed bus depot has been devised to remain solely within the "less degraded" wetland identified by Steytler & Mugabe (2021).

The degraded wetland (which is where the limits of the preferred alternative would be located) provides moderately low WET-Ecoservices, has a category E PES and low/marginal EIS.

The less degraded wetland (which is not within the limits of the preferred alternative development footprint but lies adjacent to the east) provides moderately low WET-Ecoservices, has a category D PES and moderate EIS.

Steytler & Mugabe (2021) note that the following impacts are anticipated:

- Design, Development and Construction: Loss of wetland habitat and function
- Design, Development and Construction: Disturbance of remaining wetland habitat
- Design, Development and Construction: Alteration of natural flow regime
- Design, Development and Construction: Increased erosion and sedimentation
- Design, Development and Construction: Water quality impairment
- Design, Development and Construction: Loss of biota
- Design, Development and Construction: Water quality improvement
- Operational: Disturbance of remaining wetland habitat.
- Operational: Alteration of natural flow regime.
- Operational: Loss of biota.

These impacts were all found to be low to very low negative for the proposed development with the implementation of mitigation measures (Steytler & Mugabe, 2021). There is also a medium (+) impact of the operational phase for improvements to water quality.

In terms of cumulative impacts, the proposed development would contribute to the further loss of depressional wetland habitat, which is a potentially significant contribution, however, the degraded portion of the depression wetland is severely degraded with a PES of E (Steytler & Mugabe, 2021). Given that the wetland habitat lost as a result of the development is mostly or wholly located within this portion, the contribution of this loss of wetland habitat towards the significant historical cumulative impact is regarded as limited (Steytler & Mugabe, 2021). The cumulative effect of wetland function loss within a catchment associated with urban expansion can

also be significant and contribute to increased peak flows which in-turn increase erosion and sediment loading. Also, loss of nutrient assimilation function would lead to increased eutrophication of the system (Steytler & Mugabe, 2021). Given that wetland function would be catered for as a result of the Stormwater Management Plan that is based on SUDS principles and compliant with the CCT Management of Urban Stormwater Impacts Policy (2009) the proposed development is expected to have a negligible effect on what is arguably a highly significant, catchment-wide, cumulative impact (Steytler & Mugabe, 2021).

A Risk Assessment Matrix has also been compiled for the proposed development, which indicates largely low risk for the preferred alternative. There is one aspect related to the construction phase where risk would be higher, namely in terms of loss of wetland habitat and function (through removal of vegetation and wetland soils) which provides a Moderate (-) risk (Steytler & Mugabe, 2021). Another aspect would have a moderate (+) impact/risk, and this relates to the improvements to water quality that would result from the removal of some of the waste illegally dumped on site (Steytler & Mugabe, 2021). The Risk Assessment Matrix includes several control measures.

When considering the environmental acceptability of the two layout alternatives the LOW (-ve) to VERY LOW (-ve) impact significance ratings (with mitigation measures implemented) for each of the identified potential freshwater ecological for both alternatives implies that both layout alternatives would be considered environmentally acceptable from a freshwater ecological perspective (Steytler & Mugabe, 2021). The development of IRT bus depot, is associated with mostly mitigable negative impacts on freshwater ecosystems (Steytler & Mugabe, 2021). For Alternative 1 it is however associated with the unmitigable loss of severely degraded wetland habitat and a small area of less degraded wetland habitat, but the preferred layout (Alternative 2) is only associated with the unmitigable loss of severely degraded habitat (Steytler & Mugabe, 2021). This severely degraded wetland habitat that would be lost for both layout alternatives is of low value as it supports few obligate wetland plants, is dominated by annual grasses and herbaceous vegetation (mostly alien) and light mottling in places suggests temporary saturation at times (i.e., its contribution to biodiversity is considered negligible) (Steytler & Mugabe, 2021). Accordingly, the opinion of the specialist is that, from a freshwater ecological perspective, the proposed IRT bus depot should be authorised and that the preferred alternative (Alternative 2) is supported (and preferred from a freshwater perspective) provided the recommended mitigation measures are implemented (Steytler & Mugabe, 2021).

In terms of the no-go alternative, should no development take place, open public access to the two depression wetland units means that solid waste dumping and exposure to fire is likely to continue for the foreseeable future (Steytler & Mugabe, 2021). Also, the proliferation of invasive alien species including kikuyu grass and invasive alien *Acacia* spp. means that the current trajectory of degradation of the wetlands is likely to continue without any management intervention by the landowner (there has been no indication to date of this occurring) (Steytler & Mugabe, 2021). Accordingly, the 'No Go' scenario has been assessed as being associated with a MEDIUM (-ve) impact significance (Steytler & Mugabe, 2021).

The adverse freshwater impacts of the no-go alternative are, thus more significant than the proposed development (with mitigation).

Refer to Appendix G(a) for the full report.

Response

The findings of Steytler & Mugabe (2021) have been addressed through the proposed development and Basic Assessment process as follows:

- The development footprint for the preferred alternative is deliberately restricted to the severely degraded wetland areas only (and NOT the less degraded wetland).
- The design of the proposed depot in terms of stormwater and run-off control responds to wetlands on site (in terms of accommodating the necessary stormwater volumes for future development) and off-site (in terms of the water quality and quantity controls, such that stormwater would pass through the permeable paving and pond, and clean water would be discharged in a controlled manner into the wetlands to the east of the site).
- The stormwater management plan also provides adequate response to the loss of wetland function.
- The landscaping for the stormwater pond would also mimic appropriate wetland vegetation (noting that landscaping on the remaining portions of the site would respond to the historic natural vegetation type and would therefore comprise appropriate Cape Flats Sand Fynbos species).
- Other measures related to detail design would be those employed for containment of spills and fuel/oil leaks, which are included as design specifications in the EMPr.
- Given that there are several impacts associated with the construction phase, the EMPr contains many specifications in order to control, manage and mitigate these impacts as recommended by the freshwater ecologist (and, in fact, all specialists).

It should be noted that **no wetland offset** is proposed. In this regard it is important to note that while both layout alternatives would entail the unavoidable loss of wetland habitat and function, the Low (-) significance of the unmitigable loss of wetland habitat coupled with the mitigable loss of wetland function is in the opinion of the specialist considered to be acceptable and does not require any additional compensation (e.g., via a wetland offset) (Steytler & Mugabe, 2021). Given the low level of significance attributed to the loss of the wetland habitat on site, there can be no reasonable requirement in terms of NEMA or the NWA for offsetting of this loss, offsets being relevant only to address residual impacts that are above Low (-) significance (and ideally not high) (MacFarlane *et al* 2016, in Steytler & Mugabe, 2021).

FAUNAL IMPACT ASSESSMENT:

Jackson & Martin (2021) assessed the impacts of the proposed development on the functioning of the site and surrounds as a faunal corridor as well as the impacts on fauna associated with the site.

Both the less degraded and the degraded depression wetlands on site is considered to have a very low SEI at habitat level (Jackson & Martin, 2021). Under this rating, development activities of 'Medium' to 'High' impact are acceptable but with minimisation and restoration mitigation (Jackson & Martin, 2021). The project area has a have a High RR and thus a Medium SEI (Jackson & Martin, 2021).

In terms of the value of the site as a corridor, it is worth noting that the intact and important pockets of Cape Flats Sand Fynbos at neighbouring sites at the Kenilworth Racecourse Conservation Area and Youngsfield Military Base are of ecological importance

(Jackson & Martin, 2021). These areas may form part of the corridor that provides a refugia for important species and facilitates the movement of species within an urban area (refer to Figure n) (Jackson & Martin, 2021). However, **the project area occurs just outside of the formalised biodiversity corridors in the City of Cape Town** (Jackson & Martin, 2021). Notwithstanding the above, the precautionary principal is applied, and it has been found that the WLT may use the site and adjacent area to access non-breeding sites (or for foraging grounds) as individuals have been found north of the project area while the breeding site is south of the project area (Jackson & Martin, 2021). Note also that this is the only terrestrial vertebrate species of conservation concern (SCCC), that may be impacted by the proposed development.

The impact is assessed as moderate (-)/ Medium (-) with mitigation (Jackson & Martin, 2021). This aligns with impacts considered acceptable in terms of the SEI ascribed to this SCC through the faunal impact assessment. It is important to note that the proposed development would only remove a portion of the corridor leaving a width of 65m at its narrowest point in the south and 325m at its widest on Wetton Road (Jackson & Martin, 2021). Disturbance to faunal species during operation is also assessed by the faunal specialist and the impacts are found to be Low (-) with mitigation, noting that the degraded area offers little ecological function, and the less degraded area maintains some functionality albeit very low (Jackson & Martin, 2021). It may function as a corridor but if the portion of degraded wetland were to be lost, this would have little impact on the function of the corridor (Jackson & Martin, 2021).

In terms of impacts on fauna, four faunal groupings were looked at by a faunal specialist; amphibians, reptiles, mammals, and avifauna. Overall, an SEI of Medium is applied to the WLT on site and for this rating, medium impacts for development are acceptable provided that restoration occurs (Jackson & Martin, 2021). 'Low to Medium' SEI considers 'Medium' impacts acceptable for development activities provided that restoration activities are implemented (Jackson & Martin, 2021).

Although not likely to be found on site, as species of conservation concern, assessments were also completed for the Cape Platanna, Micro Frog, and Black Harrier, all of which were found to have 'Very Low' SEI which means that 'Medium to High' impacts would be considered acceptable with no need for restoration (Jackson & Martin, 2021).

The project area may be used to access nonbreeding sites or act as a non-breeding site (Jackson & Martin, 2021). **No WLT were found breeding in the inundated wetland areas within the project area** (Jackson & Martin, 2021), noting that the specialist specifically carried out a field survey during the breeding season of 2020.

Jackson & Martin (2021) note that the following impacts are anticipated:

- Planning, Design and Development: Loss of extent of faunal habitat and reduced faunal diversity
- Planning, Design and Development: Reduced faunal SCC diversity due to construction phase habitat clearing
- Operational: Disturbance of faunal species due to use of the project area during operation
- Impact of no-go alternative

The impacts are found to be acceptable in terms of the SEI rating of the site, even when one considers the SCC SEI of the WLT (which is ranked as Medium), which is that 'Medium' to 'High' impacts are acceptable but with minimisation and restoration mitigation (Jackson & Martin, 2021) (noting that most impacts are found to be low (-) with mitigation, but there is one medium (-) impact within mitigation (which refers to the impact of development of the proposed depot on "Reduced *S. pantherina* foraging ground/corridor") for both development alternatives (Jackson & Martin, 2021). Other impacts are associated with low (-) significance (with mitigation).

In terms of cumulative impacts, there are no known cumulative impacts (Jackson & Martin, 2021).

When considering the environmental acceptability of the two layout alternatives the preferred layout will not impact on the less degraded wetland and will allow for a slightly larger corridor for faunal movements including that of the WLT thus the preferred layout is favoured over the alternative layout (Jackson & Martin, 2021).

In terms of the no-go alternative, the project area will continue to degrade and what little functionality the less degraded wetland habitat has, may be lost and is unlikely to recover without assistance and maintenance, with the impact being low (-) (Jackson & Martin, 2021).

Refer to Appendix G(h) for the full report.

Response

The findings of Jackson & Martin (2021) have been addressed through the proposed development and Basic Assessment process as follows:

- The proposed development responds spatially to the faunal sensitivities through creation of a preferred alternative which avoids the Medium SEI area and restricts the development footprint to the Low SEI areas which also coincides with the extent of the severely degraded wetlands (as delineated by Steytler & Mugabe, 2021).
- The siting of the proposed development as far west as possible, and making it as narrow as possible, also allows for a corridor to the west (and a slightly wider corridor would be available with the preferred alternative).
- The WLT and movement through the area would also be accommodated through design such as including a stormwater pond, planted to mimic wetland conditions, located in the northeast corner of the site (nearest to the remaining corridor).
- The WLT Design Guideline measures have been included in the design specifications of the EMPr.
- Construction and operational management measures are also included in the EMPr specifications to remain aware of and avoid harm to the WLT (and, in fact, all fauna, other than pests).
- During breeding season, the Applicant is required to employ a suitably trained individual during WLT migrations i.e., before and after breeding (late July-early sept) to check the project area for and move out of harm's way, and this is a specification included in the EMPr as well.
- In terms of the assessment methodology following, the faunal impact assessment was carried out over an extended period in order to establish the extent to which the WLT may make use of the site (i.e., breeding, foraging, movement).
- The precautionary principle has also been followed in terms of the assumption that the WLT may use the site as a corridor/ foraging ground and impact assessment, as well as mitigation require has been based on this assumption.

MHI RISK ASSESSMENT

A Major Hazard Installation (MHI) Risk Assessment has been conducted primarily in response to the need to store diesel on site for the refuelling of the buses. The main aim of the investigation was to quantify the risks to employees and neighbours regarding the facility in Wynberg (Thackwray, 2021). The MHI Risk Assessment has been completed in accordance with the Major Hazard Installation Regulations, which is the primary law under which these types of issues are regulated.

No societal risks were generated as the risks associated with the proposed diesel depot is very low (Thackwray, 2021). Risks within the development limits are also considered and there are none at the office, drivers rest area or at the eastern boundary (Thackwray, 2021).

Thackwray (2021) concludes that the modelled effects of the proposed diesel tanks and associated risks do not extend past the depot limits and do not reach any sensitive areas. Therefore, The risks posed by the installation were found to be acceptable for the area in which it will be located (Thackwray, 2021).

Refer to Appendix G(j) for the full MHI Report.

Response

- Thackwray (2021) confirms that the following containment and safety systems have been incorporated in the design of the diesel depot:
 - The diesel tanks are located underground;
 - There are fire extinguishers at the installation;
 - There are fire hose reels within 30m of the bund and a fire hydrant within a 100m.
- The context of the site, in terms of site selection, is also appropriate in this regard as there are no conflicting risks/MHI installations nearby.
- The risk reduction measures included in the MHI Risk Assessment are also included in the specifications of the EMPr for design and planning as well as the operational phase.

NOISE ASSESSMENT

A noise impact assessment was carried out in terms of The South African National Standard (SANS) 10103:2008 (Jongens, 2021). In this regard, Jongens (2021) clarifies that SANS environmental noise impact assessment procedures are similar to other disciplines whereby the intensity and significance of impact is identified as Low, Medium, or High, but that the Noise Control Regulations (NCR) provide a hard line in that they stipulate a noise level criterion that, by law, may not be exceeded (Jongens, 2021). Thus, either the noise levels comply with the criterion, or they do not (Jongens, 2021). In the latter instance noise mitigation procedures must be implemented and so Jongens (2021) asserts that, in regard to noise, the NCR thereby override the relative noise assessments in the EIA process.

The measurement and rating of environmental noise with respect to annoyance and to speech communication and the relatively few bus movements during a full daytime and/or night-time reference time period, would result in the intensity of noise impact being **Negligible** (Jongens, 2021).

Refer to **Appendix G(k)** for the full Noise Impact Assessment Report.

Response

The siting of the proposed depot is located in an area where there are limited sensitive noise receptors nearby and the scale of the proposed depot would result in negligible noise impacts, therefore, there are no further mitigation measures/ responses required.

GROUNDWATER IMPACT ASSESSMENT:

Given that the water levels are shallow (i.e., < 3 mbgl), it can be deduced that the upper intergranular aquifer has a higher likelihood of becoming contaminated (Naicker & Muller, 2021). The bedrock most likely consists of granite that weathers to clay forming a lower permeability layer above the fractured granite and is likely to provide some protection against point and non-point sources of contamination in the fractured aquifer. The depth to groundwater (approximately 2.5 mbgl on average across the site) provides limited opportunity for natural attenuation in the vadose zone, prior to contaminants reaching the groundwater (Naicker & Muller, 2021). The average depth to groundwater is confirmed approximately 2.5 mbgl on average across the site (Naicker & Muller, 2021).

The findings of Naicker & Muller (2021) indicate that contamination of the upper intergranular aquifer is higher in likelihood and that there is a low permeability layer above the fractured granite bedrock which would provide some protection against point and non-point source contamination in the low fractured aquifer. It is also noted that impact on total recharge is not anticipated (i.e., reduction in recharge is deemed negligible in relation to the primary aquifer as a whole), but that the required groundwater monitoring would serve to monitor water levels over time and provide for detection of potential contamination proximal to the site (Naicker & Muller, 2021).

Naicker & Muller (2021) note that the following impacts are anticipated:

- Construction: Contamination as a result from dewatering machinery and activities.
- Operational: Potential contamination of groundwater from fuel dispensing operations and the re-filling of the underground storage tanks.
- Operational: Potential contamination of groundwater from drainage of onsite chemicals off the depot surface and into the primary aquifer via stormwater.
- Operational: Potential contamination of groundwater from leakage associated with the spray booth and workshops.
- Operational: Groundwater contamination from drainage of contaminants from buses such as oil during washing, into the shallow subsurface - long term risk.
- Operational: Groundwater contamination from drainage of contaminants from the bus parking area, into the shallow subsurface-long term risk.

- Operation: Reduced groundwater recharge into the aquifer due to developed surface.

Impacts with mitigation bring the significance of impact on groundwater to medium to low (-), as it is largely an impact which can be mitigated (Naicker & Muller, 2021).

In terms of cumulative impacts, these are anticipated to be low (-) to medium (-) for all impacts, noting that reduction in recharge is deemed to be negligible in relation to the primary aquifer as a whole (Naicker & Muller, 2021).

The impacts of both alternatives would be similar, and the no-go alternative would have no groundwater impacts.

Refer to **Appendix G(g)** for the full groundwater report.

Response

The findings of Naicker & Muller (2021) have been addressed through the proposed development and Basic Assessment process as follows:

- Design specifications are included in the EMPr in order to design containment and mitigation measures to prevent contamination of groundwater and spills.
- Operational monitoring specifications are included in the EMPr in order to allow for documenting changes in water levels over time and provide for early detection of potential contamination proximal to the site.
- Design specifications regarding stormwater management (which aligns with requirements stipulated in the freshwater impact assessment and to provide for the loss of function that the infilling of the wetlands on site would cause, as well as the City of Cape Town SUDS policy, as well as being inclusive of climate change modelling) are included in the EMPr.

STORMWATER MANAGEMENT PLAN

The proposed Wynberg Depot site has an existing moderate overland slope of 0.60%, draining in a north-easterly direction toward the existing low-lying area adjacent to Kromboom Parkway (M5) (Saunders *et al*, 2021). Saunders *et al* (2021) confirm that there are existing stormwater infrastructure on site.

Three stormwater design scenarios are investigated in Saunders *et al* (2021) who finally concludes that Scenario 1 (as labelled in the stormwater report) (i.e. provision of permeable paving and a detention facility with a "wet pool" to provide water quality amelioration; and a suitable cut-off measures to the south of the site) is the better option as it is the only scenario which functions optimally from both a water quantity and quality perspective (refer to Section H 1.3 for more on the stormwater options considered). Further design recommendations are also provided in the stormwater management plan. It should also be noted that the existing wetland / depression storage has limited volumetric capacity when measured against the 1 in 50 year return period however no remedial measures are recommended for reasons provided in the stormwater management plan²⁸.

A stormwater management plan has been included in Appendix G(c) and is to be observed in the development of the proposed depot.

Response

The findings and recommendations of Saunders *et al* (2021) are considered in the proposed development and Basic Assessment process as follows:

- The earthworks and hardening of the surfaces, and related changes to the surface water drainage regime on site have been considered and accommodated in the Stormwater Management Plan.
- Cognisance has been given to climate change and its effect upon rainfall.
- The proposed stormwater system has been designed to manage water quantity as well as water quality of the anticipated additional run-off from the new hard surfaces on site.
- The stormwater management plan proposed as part of the proposed development reflects the recommended "Scenario 1" (as labelled in the Stormwater Management Plan), which is indicated to be the only scenario which functions optimally from both a water quantity and quality perspective (Saunders *et al*, 2021).
- The EMPr also includes the design measures recommended in the stormwater management plan under the design and planning specifications.

GEOTECHNICAL ASSESSMENT

Soil is largely described as "slightly clayey sand", the soils classify as SM-SC or SC (Brown & Engelsman, 2020). The published geological map of the area indicates that the site is underlain by recent Quaternary deposits, underlain by clayey decomposed granite and granite at depth below the site (Brown & Engelsman, 2020). The soil profile at the site is characterised by variable fill material overlying naturally transported in situ soils. The layers of refuse in the overlying fill make the founding conditions potentially problematic in terms of settlement/differential settlement and remedial measures will have to be undertaken to reduce the amount of potential settlement/differential settlement (Brown & Engelsman, 2020). The old refuse layer beneath the more recent fill material is the layer which is more prone to settlement, and it will be very difficult to improve the compaction within this layer (due to the depth and the saturated conditions) (Brown & Engelsman, 2020). The refuse layer was found to vary in thickness between about 0.3 m and about 1.2 m, with a probable average thickness in the order of about 0.8 m (although some thicker refuse layers are likely to be present) (Brown & Engelsman, 2020).

The findings of the geotechnical assessment do not preclude development on site, however the founding conditions must be considered, particularly in light of the indication that the fill materials are therefore potentially problematic in terms of settlement/differential settlement (due to the likelihood of older refuse layer being compressed, but the more recent layer and overlying fill not being properly compacted and contains some large concrete blocks, etc) and remedial measures will have to be undertaken to reduce the amount of potential settlement/differential settlement should the site be developed as an IRT depot (Brown & Engelsman, 2020). Options for ground preparation have been recommended for consideration (Brown & Engelsman, 2020).

The geotechnical assessment is included in Appendix G(f).

Response

The findings and recommendations of Brown & Engelsman (2020) are considered in the proposed development and Basic Assessment process as follows:

- Remedial measures are proposed as part of the proposed development in terms of ground preparation and means to deal with the waste currently on site. These are included in the design specifications of the EMPr.
- Engagement with DEA&DP Waste Management and DEA&DP Pollution and Chemicals Management branches has been undertaken in parallel with this Basic Assessment process and they have confirmed that this must be handled in terms of Part 8 of the NEM: WA.

TRAFFIC / TRANSPORT ASSESSMENT

Clark & Liebenberg (2021) confirm that the proposed depot meets minimum access spacing and shoulder sight distance requirements.

Analyses indicates that the Wetton Road / Rosmead Avenue intersection currently operate well, with the exception of the right-turn movement on the southern Rosmead Avenue approach, but constraints at the Wetton Road / Rosmead Avenue intersection preclude any feasible upgrades from being proposed (Clark & Liebenberg, 2021).

The assessment concludes that All intersections in the study area for the short- and long-term access arrangements will operate adequately following the implementation of the development and the M5 / Wetton Road Interchange (Clark & Liebenberg, 2021). No recommendations have been made in terms of upgrades to surrounding infrastructure as part of the proposed development (noting that access and signalisation at the access intersection would be part of the Kenilworth Racecourse development) and that there are no recommendations in terms of NMT or public transport given that the systems already in place in the context (and future planned systems) are appropriate. Therefore, the EAP has interpreted the assessment to result in low (-) impact (given the implementation of the precautionary approach and the fact that something would change, a rating of "no impact" was not considered appropriate).

The transport impact assessment has been included in Appendix G(e).

Response

The findings of the transport impact assessment indicate limited constraints to development of the proposed bus depot, therefore there is a limited response required in this regard. The access point has been planned for a suitable location.

SOIL CONTAMINATION

A soil contamination investigation was initiated in response to the waste dumped on the site in order to determine whether the land can be considered contaminated, and to provide information to determine the procedural requirements in terms of the NEM: WA.

Soil samples were analysed for metals and metalloids, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and TPH (O'Brien & Engelsman, 2020). The concentrations of all determinands in the recent fill disposed of at the site (i.e., upper surface layer) are all below their respective soil screening values for commercial industrial land use (proposed future use) (O'Brien & Engelsman, 2020).

O'Brien & Engelsman (2020) confirm that no complete S-P-R linkage is identified for site workers (construction or operational phase) due to the absence of any contamination sources in the surface fill layer at the site, but that a potentially complete S-P-R linkage exists via the leaching of Cu and Pb from the surface fill to groundwater and ecological receptors. However, in this regard, the covering of the recent fill with hardstanding materials and resultant reduction in infiltration is considered sufficient to mitigate these risks (O'Brien & Engelsman, 2020). The upper fill layer is not considered to be contaminated and does not pose an unacceptable risk to human health in an industrial / commercial land use (O'Brien & Engelsman, 2020).

The soil contamination report has been included in **Appendix G(l)**.

Response

The findings and recommendations of O'Brien & Engelsman (2020) are considered in the proposed development and Basic Assessment process as follows:

- The nature/type of the proposed development is acceptable as all contaminants detected are below the SSV2 levels.
- The proposed surfacing and fill required to achieve the proposed depot would also serve to "close/block" any risk pathways on site, hence the conclusion that the covering of the recent fill with hardstanding materials and resultant reduction in infiltration is considered sufficient to mitigate these risks (O'Brien & Engelsman, 2020).
- There is one recommendation indicated in the soil contamination report, regarding avoidance of abstraction of groundwater, and this has been included in the specifications for all phases in EMPr.
- In terms of assessment methodology, the contamination assessment responds to the geotechnical conditions on site through their sampling, which including collection of soil samples from "both the more recent sandy fill and the underlying older refuse horizon" ²⁹(O'Brien & Engelsman, 2020).

LANDSCAPING

Landscaping would entail a combination of planting of grasses, trees, groundcovers, and paving (with much of the surface being paved or tarred). Refer to Figure c for the landscape plan.

Refer to Appendix N for a draft Landscaping Plan.

Response

The landscaping strategy is included as part of the proposed development in order to uplift the aesthetics of the area and provide screening from adjacent/ nearby users. The inclusion of water-wise, low maintenance plants would provide for a more sustainable project and the SUDS principles of the City of Cape Town would be applied. The EMPr includes the landscaping as part of the design considerations, and measures such as the waterwise and indigenous plants and SUDS alignment are included in the design specifications of the EMPr. Given the phased construction of the depot, the landscape plan also accounts for phased landscaping.

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

Agriculture

The recommendation for approval in this regard is not subject to any conditions (Lanz, 2021), therefore none are included in the EMPr.

Heritage:

No mitigation measures provided by the specialist due to no heritage resources being impacted by the proposed development. However, the following measures have been included in the EMPr:

- Should any heritage resources be exposed during excavations or any actions on the site, these must immediately be reported to Heritage Western Cape, the Provincial Heritage Resources Authority of the Western Cape (in accordance with the applicable legislation).
- Heritage remains uncovered or disturbed during earthworks must not be disturbed until the necessary approval has been obtained from Heritage Western Cape. Heritage remains include: archaeological remains (including fossil bones and fossil shells); coins; indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artifacts and bone remains; structures and other built features; rock art and rock engravings; shipwrecks; and graves or unmarked human burials.
- A qualified archaeologist must be contracted where necessary (at the expense of the applicant and in consultation with the relevant authority) to remove any human remains in accordance with the requirements of the relevant authority.

Botanical

Mitigation measures/recommendations have been proposed by NCC (2021) as follows:

- **Planning Phase:**
 - Engineers in consultation with geohydrologist incorporate adequate drainage measures to maintain groundwater seasonal recharge and flow.
 - Liquid pollution runoff simply must not be allowed to occur.
 - Polluted runoff from the bus depot must not be allowed and must be avoided through design.
 - All depot areas must be clearly bordered and fenced in so as to prevent encroachment into areas not required.
 - No NEMBA listed invasive alien plants shall be allowed to establish on the site.
 - No locally indigenous flora may be used for landscaping unless from a guaranteed source within the study area i.e., originating from a natural population in the study area. This is to prevent genetic contamination of existing populations. If a species is moved outside of its natural range and into that of a closely-related species, problems associated with competition and hybridisation (when two varieties or species interbreed to form a hybrid or "mix") could result (Esler, Pierce & De Villiers, 2014, Pg 151).
 - All landscaping should utilise only indigenous species being both waterwise and low maintenance i.e.: No fertilisers required.
- **Construction Phase:**
 - All site camps, laydown areas etc. must be located in already transformed areas. These must be "fit for-purpose" i.e., not an open space but rather a hard surfaced fenced off area or non-natural vegetation zone e.g.: Sports field.
 - All construction areas must be clearly demarcated and the area outside of this to be labelled as "Out-of-bounds" so as to prevent encroachment into areas not required for construction.
 - No locally indigenous flora may be used for landscaping unless from a guaranteed source within the study area i.e., originating from a natural population in the study area. This is to prevent genetic contamination of existing populations. If a species is moved outside of its natural range and into that of a closely-related species, problems associated with competition and hybridisation (when two varieties or species interbreed to form a hybrid or "mix") could result (Esler, Pierce & De Villiers, 2014, Pg 151).
 - All landscaping should utilise only indigenous species being both waterwise and low maintenance i.e.: No fertilisers required.
 - No NEMBA listed invasive alien plants shall be allowed to establish on the site.
- **Operation Phase:**
 - All depot areas must be clearly bordered and fenced in so as to prevent encroachment into areas not required.
 - No NEMBA listed invasive alien plants shall be allowed to establish on the site;
 - No run-off (polluted or not) must be allowed to leave the site into bordering vegetated areas.

NCC (2021) also requires that the mitigation measures called for in the GEOSS report to be implemented. This is indicated in the EMPr as per the notes on "Groundwater" indicated in this section of the report.

Note that NCC (2021) did not recommend a biodiversity offset, and therefore there are no such recommendations in the EMPr.

Freshwater:

Recommendations/ mitigation measures provided in Steytler & Mugabe (2021) include the following:

- **Planning Phase:**
 - Implement the Stormwater Management Plan that is compliant with the CCT Management of Urban Stormwater Impacts Policy (2009).
 - As far as is practically possible, all site clearing, infilling and excavations should be undertaken during the dry summer season.

- Commence with site preparation and construction activities during the dry summer season (i.e., outside the breeding season of *S. pantherinus*), as far as practically possible.
- Commission the preparation of a landscaping plan that specifies how the depot will be landscaped and in particular the soft landscaping including revegetation of undeveloped areas.
- Collect rainwater off the roofs of the buildings and store the water in rainwater tanks for irrigation purposes.
- **Construction Phase:**
 - Formulate and implement a development phase Environmental Management Plan (EMP) which includes the following specifications:
 - Declare the areas outside of the development footprint of the proposed depot as a No-Go area to construction personnel, vehicles, and equipment.
 - No stockpiles may be located within 50m of the adjacent wetland (or No Go) area.
 - The ECO shall designate the site for stockpiling (note this should preferably take place at the Construction Camp but an alternative site can be identified closer to the wetland, but no closer than 50m, in consultation with the ECO).
 - Protect soil stockpiles, if required, from erosion using a tarp or erosion blankets.
 - Implement erosion control measures in order to prevent erosion and sedimentation of the adjacent wetland as required by the Environmental Control Officer (ECO). For example, strategically place straw bales or sediment fences/traps, to divert stormwater away from areas susceptible to erosion etc.).
 - Any sediment contaminated runoff should be contained and allowed to settle before being discharged into the stormwater system. The settled-out sediment collected in this manner should be cleared manually as needed.
 - The ECO is to check erosion control measures weekly to ensure these are still intact (and cleared of sediment in accordance with the recommendations above) as needed.
 - The ECO is to check the site for erosion damage and sedimentation after every heavy rainfall event. Should erosion or sedimentation be noted, immediate corrective measures must be undertaken.
 - Ensure that any part of the wetland area that is damaged as a result of construction activities is suitably and timeously rehabilitated to the satisfaction of the ECO.
 - Where cement is mixed in a cement mixer ensure that the cement mixer operates at all times within a bunded area with an impermeable base.
 - Where cement is mixed by hand, ensure that the cement is mixed at all times in impermeable containers or in a bunded area with an impermeable base.
 - All wet and dry cement deposits outside the contained areas are to be cleaned at the end of each day and disposed of as rubble.
 - Store fuel, chemicals, and other hazardous substances in suitable secure weather-proof containers with impermeable and bunded floors to limit pilferage, spillage into the environment, flooding, or storm damage.
 - Inspect all storage facilities and vehicles daily for the early detection of deterioration or leaks.
 - Clean up any spillages (e.g., concrete, oil, fuel), immediately. Remove contaminated soil and dispose of it appropriately.
 - Dispose of used oils, wash water from cement and other pollutants at an appropriate licensed landfill site. Disposal of any of these waste materials into the stormwater system is strictly prohibited.
 - Dispose of concrete and cement-related mortars in an environmental sensitive manner (can be toxic to aquatic life). Washout may not be discharged into the wetland or stormwater system.
 - Provide an adequate number of portable toilets where work is being undertaken. These toilets must be located at least 50m from the boundary of the No-Go area to the east of the depot site and must be serviced regularly in order to prevent leakage/spillage.
 - All solid waste removed from the site by excavator must be placed in a skip immediately.
 - All skips containing waste shall be immediately transported to landfill for disposal when/as soon as the skip becomes full.
 - Any skips containing solid waste at the end of the day shall be covered to prevent wind from blowing any of the waste away.
 - Receipts for the safe disposal of solid waste shall be kept on record by the Contractor.
 - No materials or machinery may be temporarily stored within 50m of the 'No-Go' area.
 - The ECO shall designate the site for the temporary storage of construction materials and the parking of construction vehicles and machinery. (Whilst this should preferably take place at a designated Construction Camp, should an alternative site need to be identified and located closer to the wetland, it must not be closer than 50m and must be sited in consultation with the ECO).
 - As far as is practically possible, all site clearing, infilling and excavations should be undertaken during the dry summer season.
 - Commence with site preparation and construction activities during the dry summer season (i.e., outside the breeding season of *S. pantherinus*), as far as practically possible.

- Implement a stormwater management measures via a Development phase Environmental Management Plan (EMP) which ensures that run-off from cleared areas is contained and encouraged to infiltrate rather direct discharge into the adjacent wetland area.
 - Demarcate the boundaries of the construction site within the development footprint with danger tape (which must be removed at the end of the development phase), fencing or a similar device and restrict all related construction activities within this demarcated area.
 - Declare the area outside of the demarcated area as a No-Go area to construction personnel, vehicles, and equipment.
 - No construction materials may be stored in the No-Go area.
 - Access to the No-Go area may only be authorised by the Environmental Control Officer (ECO) following the approval by the ECO of a Method Statement detailing the activity that will be undertaken in the No-Go area including how the area will be accessed.
 - Clear and remove any rubble or litter that may have accidentally been deposited into the No Go area as a result of construction activities and dispose of at an appropriate registered facility.
 - Restrict personnel, vehicles, and machinery to the development footprint (i.e., declare all areas beyond the development footprint as No-Go areas for machinery, materials, and personnel).
 - Rehabilitate any part of the No-Go area that may have been damaged as a result of construction activities to the satisfaction of the ECO. Depending on the extent of damage the method of rehabilitation may need input from a freshwater specialist.
 - Undertake vegetation clearing only in the areas required for the construction of the depot and associated infrastructure.
 - Other areas that need to be cleared because they contain listed alien invasive species or cleared for any other purpose must be revegetated with immediate effect.
- **Operational Phase:**
 - Implement the Stormwater Management Plan that is compliant with the CCT Management of Urban Stormwater Impacts Policy (2009).
 - Formulate and implement an Environmental Management Plan (EMP) for the operational phase which includes the following specifications:
 - Ensure that all litter bins and solid waste storage areas within the depot are weather-proof (i.e., designed to prevent waste from being blown away by wind);
 - Regularly (at least weekly) inspect the depot site for evidence of wind-blown solid waste and collect any waste encountered and dispose of the waste into the weather-roof bin and/or waste storage area.
 - Control alien invasive plants within the proposed depot in accordance with best practise methods for the identified species.
 - Collect rainwater off the roofs of the buildings and store the water in rainwater tanks for irrigation purposes.

Steytler & Mugabe (2021) also note that the mitigation measures recommended by the faunal specialist for *S. pantherinus* and any other aquatic fauna that may be at risk during the operational phase must be implemented. The faunal mitigation measures are also included in the EMPr.

Note that Steytler & Mugabe (2021) note that no wetland offsets are considered necessary, therefore none are recommended and included in the EMPr.

Faunal:

Recommendations/ mitigation measures provided in Jackson & Martin (2021), and which are included in the EMPr, include the following:

- **Planning Phase:**
 - Implement the Western Leopard Toad Construction Phase Environmental Management Plan and Construction Checklist.
 - Implement the Western leopard toad Development Design Guideline.
 - Development must only be within the development footprint.
 - Access road must have an underpass (flat bottom culvert).
 - Ensure development is setback from the road to allow for vegetated pavement to act as a corridor.
 - Installation of low UV emitting lights, such as most LEDs.
 - All stormwater must be dealt with onsite and cannot flow straight into the wetland. Control is required to prevent hydrocarbons from entering the system. If hard surfaces are used a retention pond may be required. Ideally it would not be redirected into the road either because then the existing wetland receives less water and therefore less recharge. A stormwater management plan would need to be designed for the site in conjunction with a wetland specialist.
- **Construction Phase:**
 - Development must only be within the development footprint.
 - Employed a suitably trained individual during WLT migrations i.e., before and after breeding (late July-early sept) to check the project area for and move out of harm's way.
 - Check for roadkill. Preserve any individuals found and submit with GPS coordinates to SANBI at Kirstenbosch.
 - Record any individuals found as per the ToadNuts requirements and submit findings.

- **Operational Phase:**
 - Implement the Western Leopard Toad Construction Phase Environmental Management Plan and Construction Checklist.
 - Implement the Western leopard toad Development Design Guideline.
 - Employed a suitably trained individual during WLT migrations i.e., before and after breeding (late July-early sept) to check the project area for and move out of harm's way.
 - Check for roadkill. Preserve any individuals found and submit with GPS coordinates to SANBI at Kirstenbosch.
 - Record any individuals found as per the ToadNuts requirements and submit findings.
 - Ensure all vehicles adhere to the relevant noise restrictions
 - Installation of low UV emitting lights, such as most LEDs.

MHI Risk

- Good housekeeping must always be observed on site (Thackwray, 2021).
- Diesel installation must conform to SANS 10089 (Thackwray, 2021).
- Suitably qualified and experienced companies must be used for the installation of the diesel equipment (Thackwray, 2021).
- Flammable Substance Certificate must be issued by the Fire Department (Thackwray, 2021).
- Operators must be trained in the safe use of diesel (Thackwray, 2021).
- Emergency Plan must be compiled (Thackwray, 2021).
- Emergency Plan must comply with the MHI Regulations (Thackwray, 2021).
- Emergency Plan must comply with SANS 1514 Codes (Thackwray, 2021).
- The MHI report must be distributed to Local, Provincial and National Government as per the MHI Regulations (Thackwray, 2021).
- Thackwray (2021) recommends that an Emergency Plan be compiled, and the following must be included:
 - Emergency Plan must address the risks of the various scenarios that were discussed in this report;
 - Emergency Plan must comply with SANS 1514 Codes;
 - Emergency Plan must be accepted and signed by Management and the Local Authority.
- Thackwray (2021) recommends review of Risk Assessment: The Risk Assessment is valid for the duration of 5 years from the above date unless:
 - Changes have been made to the plant that can alter the risks on the facility;
 - The Emergency Plan was invoked or there was a near miss;
 - The changing neighbourhood could result in offsite risks;
 - There is reason to suspect that the current Assessment is no longer valid.
- Risk Reduction Programmes: Risk reduction programmes should continually be investigated to reduce the impact from accidental fires and explosions on surrounding communities (Thackwray, 2021).
- MHI Notification (for operational phase): For this Major Hazard Installation (MHI), Thackwray (2021) confirms the following levels of Government need to be notified prior to the installation of the MHI's:
 - Local Authority;
 - Provincial Government;
 - National Government.
 - Thackwray (2021) further confirms that the process is as follows:
 - Copy of the MHI Risk Assessment, along with a cover letter notifying the Fire Department/ emergency services (Local Authority). Proof of receipt needs to be obtained from the Local Authority;
 - Copy of the MHI Risk Assessment, along with a cover letter notifying the Provincial Director from the Provincial Department of Labour. A proof of receipt needs to be obtained from the Provincial Department of Labour;
 - An advert needs to be placed in a local newspaper informing the public about the MHI. The information that needs to be included in the advert is as follows:
 - Physical address of the MHI;
 - Maximum quantity of the substance that resulted in the installation being classified as an MHI;
 - Contact person where more information can be obtained;
 - Notify the public that they can comment/ object to the installation with the Department of Labour or the Local Authority;
 - Expiry date of the 60-day commenting period;
 - Copy of the MHI, along with a cover letter notifying the Chief Inspector from the National Department of Labour.
 - Copies of proof of receipts and a copy of the advert must be included.

Noise

The scale of the proposed depot would result in negligible noise impacts, therefore, there are no further mitigation measures/ responses required. It was calculated that provided the number of bus movements on the trajectory closest to the western boundary did not exceed one per minute the associated noise would be compliant with the NCR (Jongens, 2021).

Therefore, the following (and only) recommendation from the Noise Impact Assessment is included in the design specifications of the EMP, but it should be noted that it is already fulfilled through the design and scale of the proposed depot:

With reference to Section 2.2, in order to comply with the NCR definition of disturbing noise (c), the 10-minute LAeq of 46 + 3 = 49 dBA may not be exceeded. This would require that no more than 10 bus movements occur per respective 10 minute periods or one bus movement per minute on the trajectory nearest to the western boundary of the bus depot site (Jongens, 2021).

Groundwater

Recommendations/ mitigation measures provided in Naicker & Muller (2021), and which are included in the EMP, include the following:

- **Planning Phase:**
 - The wetland area must remain undeveloped as it is suspected that the wetland prevents contaminated water beneath the site from moving further downgradient.
 - Necessary levels of protection and monitoring will need to be installed on site, with regard to the storage of the fuel. The mitigation measures listed below must be employed to ensure no contamination of the aquifer takes place.
 - Tanks must be double walled / "Jacketed" i.e., possessing secondary containment to prevent tank content release into surrounding soil and groundwater. The UST must have an internal leak detection monitoring system between the two walls to monitor for product leakage;
 - Fuel lines and sumps must be secondary contained where lines are joined.
 - The diesel pumping area of the depot must include the following design measures:
 - Fuel Containment Area
 - The containment slab must be graded to drain a catch-pit that is connected to discharge to the stormwater system via an oil separator while the surrounding paved surface areas must be graded to ensure rainwater runoff to the stormwater system. No washing in this area is allowed.
 - Forecourt area
 - The forecourt area must be provided with its own set of catch pits that is connected to discharge to the sewer via a separate oil separator. Please note that the aforesaid areas (1 & 2 above) cannot be interconnected. The surface area of the forecourt must be graded to the abovementioned catch pits while the surrounding surface area graded to drain rainwater to the stormwater system. Washing of the forecourt surface is allowed in this instance. Note that the wastewater discharge to sewer would require a permit from the City of Cape Town.
 - Surface and groundwater monitoring must be conducted as prescribed in the freshwater and groundwater specialist reports (refer to **Appendix G** and **Appendix P**).
 - Mitigation measures must be implemented as prescribed in the latest freshwater and groundwater specialist reports (refer to **Appendix P**).
 - Installation of USTs:
 - Construction of a reinforced concrete slab over the USTs, its thickness and strength are to be determined by a qualified Engineer;
 - The filler point and tank must be fitted with overfill protection. The critical level should be such that a space remains in the tank to accommodate the delivery hose volume (2%). Earthing and snap tight quick coupling is to be provided for loading of materials into tanks to minimise the risk of fires and prevent spillage and loss of materials; and
 - The USTs are to be fitted with a tank containment sump, fitted on top of the tank and a dispenser containment sump must be provided, fitted underneath the dispenser as containment. A Filler spill containment must also be provided for remote filler containment purposes;
 - The UST must be buried 750 mm below finished ground level in accordance with SANS 10089-3;
 - Installation of Pipework:
 - Installation of associated pipe work. This shall include the installation of internationally approved non-corrosive pipework systems. All underground piping is to be Petrotechniks UPP Extra piping (nylon lined, 10 bar rated). Nextube Kableflex sleeving (oil industry green with a smooth internal bore) to be used as secondary containment. This is to limit the possibility of pipe failure due to corrosion; this being the most common cause of pipe failure before this system was introduced to South Africa.
 - All pipeline connections are to be housed within impermeable containment chambers. A leak detector on all submersible pumps that automatically checks the integrity of the pipework on the pressure side of the pump must be provided. Pipelines must not retain product after use and no joints are to be made underground. An emergency shut-off valve must be supplied between the supply pipeline and dispenser inlet. All pipes (vent, filler, and delivery) are to slope back to the USTs so that fuel does not remain in the pipes.
 - Vent pipes to be fitted with "Fulcrum" vertical vent roses, or an approved equally equivalent market product replacement, that conforms to these standards. Confirmation of filler point and vent position to be made by an approved Engineer for safety distances required;
 - Vent pipes above ground are to be galvanised mild steel and are to be at least 1 000 mm above the roof height and away from any doors, windows, chimney openings and other sources of ignition; and the tank product lines must be pressure tested prior to commissioning.
 - Leak detection and monitoring:
 - USTs are to be fitted with a monitoring tube to allow for the monitoring of leaks through the tank surface.

- Leak detectors are to be installed to the submersible pumps within UST manholes to ensure that there are no line leaks.
- A relatively inexpensive soil vapour monitoring installation must be installed which can be monitored on a frequent basis (monthly intervals) using a Photo Ionisation Detector (PID) e.g., Mini RAE 2000.
- The installation of Soil Vapour Sampling Points will require the placement of a permeable coarse clean sand layer beneath the storage tanks for a vertical depth of approximately 0.5 m to 1 m in order to locate the vents in the 16 mm diameter monitoring pipe over portion of this depth.
- Observation wells must be installed in the sand fill surrounding the underground storage tanks for regular groundwater monitoring purposes
- Forecourt dispensing area:
 - Installation of pump islands in the forecourt area. The pumps are to be fitted with a Spill Containment Chamber;
 - Construction of a concrete bunded reinforced graded slab over the forecourt area, with positive falls towards a centrally located catch-pit/sump. The slabs thickness and strength are to be determined by a qualified Engineer.
 - The centrally located catch-pit/sump shall drain into a pollution containment chamber i.e., an approved oil/water separator system. Once the wash water has passed through the system, the separated oil must be collected regularly by an approved waste contractor and removed to an approved hazardous waste disposal facility.
 - The forecourt shall be covered.
- Groundwater Monitoring:
 - Monitoring boreholes must be planned as per the monitoring requirements in the Groundwater Monitoring Action Plan.
- Stormwater Management:
 - A comprehensive stormwater system needs to be implemented to ensure any surface run-off is guided to an oil separator. No rainwater is allowed to be discharged to the sewer system. Peak flows will be managed by channels which cross underneath the proposed roads by means of 1 in 50-year culverts, and eventually discharge into the proposed attenuation facility. No spillage/leakage is allowed to emanate from the culverts and regular maintenance should take place.
 - The containment slab must be graded to drain a catch-pit that is connected to discharge to the stormwater system via an oil separator while the surrounding paved surface areas must be graded to ensure rainwater runoff discharges to the stormwater system. No washing in this area is allowed.
 - A pollution containment chamber is necessary to drain into, i.e., an approved oil/water separator system. Once the wash water has passed through the system, the separated oil must be collected regularly by an approved waste contractor and removed to an approved hazardous waste disposal facility.
 - A comprehensive stormwater system needs to be implemented to ensure any surface run-off whether from the permeable paving or impervious layers is guided to an oil separator before discharged into the attenuation pond. Through the use of settling ponds and natural attenuation techniques, water should be treated to suitable standards before being allowed to infiltrate and recharge groundwater.
 - Permeable paving surface area has been determined at 33 %.
 - No rainwater is allowed to be discharged to the sewer system.
 - Monitoring boreholes must be installed on site for regular groundwater monitoring purposes (chemical sampling).
- Spray Booths:
 - The spray booth (a closed system) and workshops should be impervious to the ground and fitted with separate appropriately designed drainage.
 - Any water emanating from the spray booth and workshops, including cleaning activities should be channelled to where the water is treated before discharged.
 - As far as possible the chemical agents used at the spray booth (including cleaning) should be environmentally friendly and bio-degradable, in efforts to reduce the potential impact should spills occur.
- Wash Bays:
 - The washing of vehicles lends itself to contamination from the oil and fuel associated with the buses. It is therefore deemed that the dirty water from washing is treated as a potential contamination source to the aquifer should it infiltrate the ground surface.
 - Please note that the vehicle wash bay and the forecourt may share the same oil separator but cannot be connected to the separator serving the fuel containment slab.
 - The CCT's requirements for Vehicle Wash Bays must be implemented.
 - All dirty water emanating from the wash bays must be channelled to the water treatment before being discharged into stormwater system. No deviation of this water should be allowed to enter the environment prior to treatment.

- **Construction Phase:**

- Vehicles must be maintained regularly and kept in a good working order.
- Dirty water should be captured, to be re-used where possible.

- No dirty water (especially if contaminated with hydrocarbons) is allowed to be discharged into the surrounding environment.
- Implement monthly groundwater quality monitoring during construction phase
- No heavy equipment or vehicles to be left in the excavation pit when not in use
- Impact on groundwater levels as a result of dewatering is expected to be negligible/insignificant during the construction phase of the bus depot development.
- The installation of Underground Storage Tanks (UST's) and associated pipework must be implemented in accordance with the relevant South African National Standards (SANS), specifically (not exclusive to) the following standards:
 - SANS 10089-3 (2010) (English): The petroleum industry Part 3: The installation, modification, and decommissioning of underground storage tanks, pumps/dispensers and pipework at service stations and consumer installations.
 - SANS 10 400TT (Fire Protection) 53 Sections 1-6 (The application of the National Building Regulations- Installation of Liquid Fuel Dispensing Pumps and Tanks);
 - SANS 10087-3 (2008) (English): The handling, storage, distribution, and maintenance of liquefied petroleum gas in domestic, commercial, and industrial installations Part 3: Liquefied petroleum gas installations involving storage vessels of individual water capacity exceeding 500 L.
- The installation of the UST's and associated pipework must comply with the National Building Regulations and Standards Act No. 103 of 1977;
- The installation must comply with local authority bylaws and all procedures and equipment used must be in accordance with the Occupational Health & Safety Act (No. 85 of 1993);
- Upon completion of the UST installation, an engineer is to inspect and verify that the tanks and the associated infrastructure have been installed as per the design criteria described in the final BAR and to all required SABS / SANS standards and applicable legislation. A report, thereafter, based on the engineer's findings, it to be submitted to the DEA&DP Land Management and Pollution Directorates for inspection and the City of Cape Town Municipality.
- Any repair work required is to be conducted according to SABS 1535 (Glass-reinforced polyester-coated steel tanks, including jacketed tanks, for the underground storage of hydrocarbons and oxygenated solvents and intended for burial horizontally);
- Installation of USTs:
 - The USTs must be reliable in the event of heavy rains and flooding. UST manholes shall be impermeable and resistant to fuel, they shall consist of a heavy-duty cast-iron cover, which shall prevent damage from surface traffic
 - Construction of a reinforced concrete slab over the USTs, its thickness and strength are to be determined by a qualified Engineer;
 - The filler point and tank must be fitted with overfill protection. The critical level should be such that a space remains in the tank to accommodate the delivery hose volume (2%). Earthing and snap tight quick coupling is to be provided for loading of materials into tanks to minimise the risk of fires and prevent spillage and loss of materials; and
 - The USTs are to be fitted with a tank containment sump, fitted on top of the tank and a dispenser containment sump must be provided, fitted underneath the dispenser as containment. A Filler spill containment must also be provided for remote filler containment purposes;
 - The excavation must be protected against the ingress of surface run off water, and is to be kept reasonably free of sub-surface water by pumping out if necessary;
 - The excavation must be lined with a HDPE liner or a suitable clay layer to prevent infiltration of product to the groundwater should a spill or leak occur (an impermeable liner);
 - The UST is to be inspected before installation for damage, including fractures or damage to coating work.
 - Leak and pressure tests must be conducted on tanks and pipelines to ensure integrity prior to operation and the inspection authority must issue pressure test certificates.
 - The UST must be buried 750 mm below finished ground level in accordance with SANS 10089-3;
 - The local Fire Department must be informed two (2) working days before installation commences and to be called for inspection at the following stages:
 - Installation of tank on clean sand bed before backfilling
 - Witness pressure test (delivery lines 1 000 kPa, tank 35 kPa); and
 - Inspection of slab over tank before concreting;
- Installation of Pipework:
 - Installation of associated pipe work. This shall include the installation of internationally approved non-corrosive pipework systems. All underground piping is to be Petrotechniks UPP Extra piping (nylon lined, 10 bar rated). Nextube Kableflex sleeving (oil industry green with a smooth internal bore) to be used as secondary containment. This is to limit the possibility of pipe failure due to corrosion; this being the most common cause of pipe failure before this system was introduced to South Africa.
 - All pipeline connections are to be housed within impermeable containment chambers. A leak detector on all submersible pumps that automatically checks the integrity of the pipework on the pressure side of the pump must be provided. Pipelines must not retain product after use and no joints are to be made underground. An emergency shut-off valve must be supplied between the supply pipeline and dispenser

inlet. All pipes (vent, filler, and delivery) are to slope back to the USTs so that fuel does not remain in the pipes.

- Vent pipes to be fitted with "Fulcrum" vertical vent roses, or an approved equally equivalent market product replacement, that conforms to these standards. Confirmation of filler point and vent position to be made by an approved Engineer for safety distances required;
- Vent pipes above ground are to be galvanised mild steel and are to be at least 1 000 mm above the roof height and away from any doors, windows, chimney openings and other sources of ignition; and the tank product lines must be pressure tested prior to commissioning.
- Groundwater Monitoring:
 - Four groundwater monitoring boreholes should be installed in order to detect any potential contamination as quickly as possible.
 - The monitoring boreholes should be drilled to a depth slightly deeper than the fuel storage tanks (depth and position to be determined by site layout). Monitoring boreholes should follow the specifications provided in the Groundwater Monitoring Action Plan.
- *Operational Phase:*
 - All containment manholes must be regularly inspected as part of the normal management procedures at the service station.
 - Regarding the pipework and USTs, any repair work required is to be conducted according to SABS 1535 (Glass-reinforced polyester-coated steel tanks, including jacketed tanks, for the underground storage of hydrocarbons and oxygenated solvents and intended for burial horizontally);
 - Leak detection and monitoring:
 - It is required to undertake integrity testing on Underground Storage Tanks (UST's) and underground pipe integrity testing. The frequency of integrity testing should be as follows as outlined here. Tank and pipe integrity testing shall be carried out in the following instances:
 - Following installation of a new UST and associated underground pipework or following repair, maintenance or upgrade of an existing UST or underground pipework (or both). Testing shall be carried out prior to burial of the installation;
 - When ownership of the UST and associated underground pipework changes;
 - When leak detection monitoring methods that may be in place, such as Stock Inventory Reconciliation Analysis, Automatic Tank Gauging (with a reconciliation facility) or interstitial vapour or liquid monitoring of double-walled or jacketed steel tanks, indicate the possibility of a leak. In this instance, an investigation into the possible leak, including integrity testing in the final stages of the investigation, shall be used to track the reasons for a failure to reconcile;
 - Where continuous leak detection monitoring, such as Stock Inventory Reconciliation (SIR), is not carried out at a site. In this instance, UST and associated underground pipe integrity testing should be carried out every 2 years. If USTs and underground pipes do not operate with a continuous leak detection system, but do have cathodic protection installed, then this period may be extended to 10-year intervals.
 - USTs are to be fitted with a monitoring tube to allow for the monitoring of leaks through the tank surface;
 - Leak detectors are to be installed to the submersible pumps within UST manholes to ensure that there are no line leaks;
 - A relatively inexpensive soil vapour monitoring installation must be installed which can be monitored on a frequent basis (monthly intervals) using a Photo Ionisation Detector (PID) e.g., Mini RAE 2000.
 - The installation of Soil Vapour Sampling Points will require the placement of a permeable coarse clean sand layer beneath the storage tanks for a vertical depth of approximately 0.5 m to 1 m in order to locate the vents in the 16 mm diameter monitoring pipe over portion of this depth
 - The Groundwater Monitoring Action Plan must be included as an Annexure to the approved EMP.
 - Observation wells must be installed in the sand fill surrounding the underground storage tanks for regular groundwater monitoring purposes
 - All containment manholes must be regularly inspected as part of the normal management procedures at the service station
 - Continuous electronic monitoring (CEM) of product must be carried out. Should discrepancies occur an alarm will be triggered, and site management will review the finding and take appropriate action to rectify the situation as required.
 - Should a leak be found or should the groundwater in the monitoring wells be found to be contaminated with hydrocarbons, a baseline Phase 1 Contamination Assessment should be undertaken, and the site remediated in consultation with a contamination remediation consultant and the Authorities.
 - Groundwater Monitoring:
 - At least four groundwater monitoring boreholes should be installed in order to detect any potential contamination.
 - The monitoring boreholes should be drilled to a depth 15 m. Monitoring boreholes should follow the specifications provided below.
 - Follow the Groundwater Monitoring Action Plan (note that the full plan is included in the EMP).

- No spillage/leakage is allowed to emanate from the culverts and regular maintenance should take place.
- The containment slab must be graded to drain a catch-pit that is connected to discharge to the stormwater system via an oil separator while the surrounding paved surface areas must be graded to ensure rainwater runoff discharges to the stormwater system. No washing in this area is allowed.
- A pollution containment chamber is necessary to drain into, i.e., an approved oil/water separator system. Once the wash water has passed through the system, the separated oil must be collected regularly by an approved waste contractor and removed to an approved hazardous waste disposal facility.
- Spray Booths:
 - The spray booth (a closed system) and workshops should be impervious to the ground and fitted with separate appropriately designed drainage.
 - Any water emanating from the spray booth and workshops, including cleaning activities should be channelled to where the water is treated before discharged.
 - Care should be taken to ensure there are no oil/fuel leaks from buses prior to entry and exit of the spray booth and workshops.
 - As far as possible the chemical agents used at the spray booth (including cleaning) should be environmentally friendly and bio-degradable, in efforts to reduce the potential impact should spills occur.
- Wash Bays:
 - As far as possible the cleaning agents used in the washing of the buses should be environmentally friendly and bio-degradable.
- Drip and spill trays should be utilized at the parking areas where buses are parked for periods of time to ensure any oil/other leaks are captured.
- Any oil/other chemicals emanating from parked buses should be appropriately disposed of with contaminant products from the oil separator/treatment.
- Washing of the paved bus parking area should be done so in a manner which allows for all liquid to be captured in the stormwater management infrastructure on site that is channelled for treatment and separation.
- Any surface-water run-off that has been treated can be considered to be discharged into the unpaved areas for recharge, however, the quality of this water must be tested frequently to ensure treatment efficiency and avoid contamination of the aquifer.

Stormwater:

The following measures from Saunders et al (2021) are included in the EMPr:

- Design and Planning Phase:
 - Scenario 1 (i.e., provision of permeable paving and a detention facility with a "wet pool" to provide water quality amelioration; and a suitable cut-off measures to the south of the site) is recommended.
 - Scenario 3 may be considered if permeable paving is not acceptable. However, careful attention to the design would be required from a health and safety perspective.
 - Suitable measures must be provided to cut off the external catchment to the south of the Wynberg Depot. As can be seen from the hydraulic analysis assessments, there is limited spare capacity in the proposed stormwater drainage network to accommodate the additional peak flows and associated volumes.
 - During detailed design, the detention pond should be designed in conjunction with the Fresh Water Ecologist to ensure that suitable slopes and planting shall be provided to allow the pond to function from an ecological perspective.
 - The detention pond should be fenced with open fencing and as per design requirements for the Western Leopard Toad to allow overland runoff to enter into the detention pond; should a solid wall be provided, then suitable openings in the fence must be provided to allow overland runoff to discharge into the detention pond.
 - The two boundary walls (inner and outer walls) should be open fencing and be designed as per the Western Leopard Toad development design guidelines downstream of the detention pond to allow peak flows in excess of the 1 in 50-year return period to discharge downstream and into the wetland / depression storage. If this is not feasible from either a security or a visual perspective, then a suitable structure should be provided in the low-point along the fence line to allow overland runoff to be conveyed under the fence and discharge into the wetland / depression storage. The structure would consist of a rectangular manhole with an outlet pipe conveying runoff under the fence; the opening of the manhole shall have grid inlets to allow the overland flow to discharge into the structure.
 - Although not considered in any of the scenario planning, additional treatment in the form of vegetated swales can be considered should the Fresh Water Ecologist require further means to offset the loss of wetland. The site layout does not allow for wide scale use of vegetated swales; however, it may be possible to construct vegetated swales on the eastern edge of the Wynberg Depot, between the two fences.
 - We recommend that these stormwater management strategies, when approved by the Catchment, Stormwater and River Management Branch of the City of Cape Town, be used as a design guide for the Storm Water Management and Drainage System that will serve the proposed Wynberg Depot.
 - The detention pond, for Local Stormwater Management Planning purposes, is served by a single 450 mm diameter stormwater pipe. Should, during the detailed design stage, it be found that the configuration cannot meet all pre-development targets (i.e., 1 in 1 year, 1 in 10 year and 1 in 50 year return periods), an outlet box shall be designed to suitably attenuation these peak flows; with a configuration as per **Figure hh**.

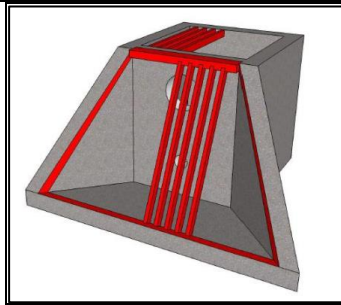


Figure hh Proposed outlet box with gratings (source: Saunders et al, 2021)

- Giving cognisance to the prevailing topography and flow regime, the following guidelines shall be followed for the detailed earthworks design:
 - The depot should be sloped toward the immediate permeable paving, which provide drainage assistance.
 - Access roads with permeable paving shall be sloped to create trapped lows and drained by the pipe network.
 - The main access roads are to be shaped and sloped in cross section, against the natural slope providing maximum drainage capacity.
- Operational Phase:
 - Maintenance is considered key to ensure the proposed stormwater drainage system functions correctly. Permeable paving (which is the recommended option) should be maintained as per the manufacturer; which shall include regular sweeping to keep the openings clear. Failure to do so will compromise the detention pond functionality.
 - To ensure that the storm water drainage and management system performs optimally, it is necessary to perform regular maintenance. The following maintenance schedule should be carried out at least once per year, and at more regular intervals where specified, preferably at the start of the rainy season in May.
 - Conduit / Road Drainage Network Inspect and clean pipe reaches, catchpits, manholes and headwalls of silt and litter. It is recommended that street sweeping, and litter removal be carried out on a regular basis, during the course of the year to minimise debris entering the underground conduit drainage network.
 - Grassed Channels and Swales Inspect grassed channels and swales once every three months and mow the grass if required. Remove all litter during the monthly inspections.
 - Permeable Paving Permeable paving shall be maintained as per the Manufacturer's guidelines.
 - Detention Facilities
 - The following checklist should be used when carrying out inspections:
 - Pond Walls
 - Adequate vegetative cover
 - Erosion gullies and rills
 - Animal burrows
 - Cracking, bulging or slip
 - Subsidence around perimeter
 - Inlet and Outlet Structures and Headwalls
 - Free of debris
 - Sediment deposition
 - Concrete/Masonry:
 - cracks or displacement
 - minor spalling (<20 mm)
 - major spalling (exposed rebars)
 - joint failures
 - Dry Pond Area
 - Adequate vegetative cover
 - Undesirable vegetative and/or woody growth
 - Standing water or wet spots
 - Sediment and/or trash accumulation
 - Wet Pond Area
 - Adequate vegetative cover
 - Undesirable vegetative and/or woody growth
 - Sediment and/or trash accumulation
 - Other
 - Aesthetics - re-grassing
 - removal of graffiti / illegal signboards
 - Condition of maintenance access
 - Public hazards
 - Other

Note also that there are no remedial measures proposed for the wetland to the east of the site, as per the recommendations in Saunders et al, 2021) and so no related measures in this regard are included in the EMP. Saunders et al (2021) provide the following reasons for this:

Geotechnical

The following remediation measures from Brown & Engelsman (2020) are included in the planning and construction phase specifications of the EMPr:

Removal of a portion of the fill, crush and recompact

Another option which can be undertaken by civil contractors is to remove about 1.5 m of the fill in the area to be developed and to stockpile the material on site. Thereafter, the underlying fill must be compacted *in situ* using a heavy vibratory pad foot compactor. The fill which has been stockpiled (mixture of clayey sand and building rubble) must be processed through a crusher to remove oversized builder's rubble (and this will improve the quality of the fill). The crushed material can then be recompact in 150 mm layers to a high density up to the required platform level (crusher produced material will need to be tested to ascertain compaction specifications). This should create a uniform soil raft with relatively uniform soil properties (if compacted to a high density). Suitable material will need to be imported for the pavement layers.

Consideration should be given to the final surfacing with interlocking concrete pavers which can be lifted and levelled should localised settlement occur. Due to the inherent variability in consistency that characterises this site, robust paving edge restraints are vital. Any single storey structures should be founded using a concrete raft at shallow depth (i.e., within the engineered crusher run fill), and all wet services must be fitted with flexible joints capable of tolerating movement due to variable settlement. While this remedial option should substantially reduce the amount of potential settlement/differential settlement, the City of Cape Town will have to accept that there remains some risk of localised settlement occurring as it will not be feasible to remove the underlying refuse which is present at depth and varying thickness.

Transport/Traffic

Measures from Clark & Liebenberg (2021) are included as follows:

- Design, Planning and Development Phase:
 - While the outgoing left-turn will be accommodated, the incoming right-turning movement will not be possible at the access point if the depot signalled access is converted to a LIFO access (Clark & Liebenberg, 2021). It is, therefore, proposed that the right turn movements at the Kenilworth Racecourse access road intersection be accommodated at the proposed M5 / Wetton Road interchange by linking the two intersections with a C-D road north of Wetton Road (Clark & Liebenberg, 2021).
 - The existing public transport embayment north of Wetton Road, and approximately 150m east of the Rosmead Road intersection, be lengthened to allow 18m buses to also make use of the embayment (if required).
 - A new embayment be provided north of Wetton road and downstream of the Kenilworth Racecourse access road intersection in the eastbound direction to serve as a drop-off and pick-up point for staff and public transport (refer to **Figure ii**).

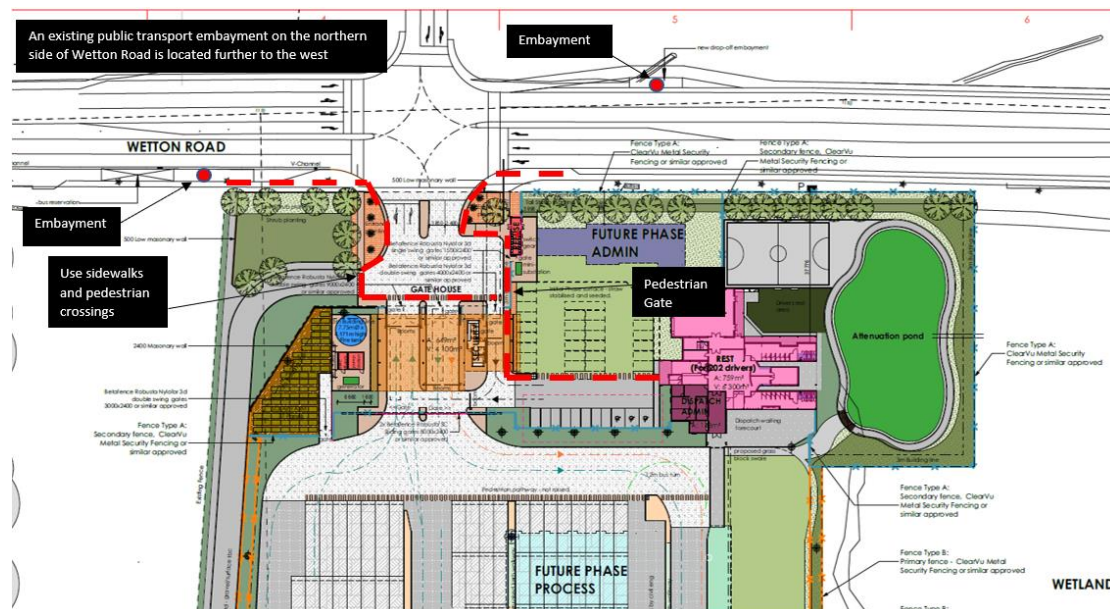


Figure ii New Embayment (source: Clark & Liebenberg, 2021)

- Bus reservation and keep clear road markings be painted in the existing embayment south of Wetton Road and downstream of the Kenilworth Racecourse access road intersection in the westbound direction.
- A right of way servitude be registered to link the depot access to Wetton Road.
- Access to the informal settlement area be reconsidered in the event of the area being formalised or re-developed in the future, based on the scale of the proposed development.
- An escape road be allowed to link the proposed depot development with the existing Wynberg Waste Drop-off Facility. *Note that this is already indicated in the proposed plans.*
- A right of way servitude be registered to link the depot to Rosmead Avenue via the proposed escape road.
- An informal link road be provided between the proposed depot access road and the existing informal settlement to maintain access to this community. *Note that this is already indicated in the proposed plans.*
- It is recommended that the entrance (boom or gate) be setback at least 24m (considering an 18m bus and one standard car with 6m stacking) from the external road to ensure that vehicles do not queue into Wetton Road.
- The proposed depot development must gain access from a new southern leg to the existing Wetton Road / Kenilworth Racecourse access road intersection

- The existing embayment south of Wetton Road and downstream of the proposed depot access road can serve as a drop-off and pick-up point for staff and public transport.
 - A total of 24 standard off-street parking bays are required in terms of the MPBL (2019) requirements for Standard Areas
 - A total of 10 interim and 39 ultimate off-street parking bays, including 3 disabled bays will be provided
 - An escape road be allowed to link the proposed depot development with the existing Wynberg Waste Drop-off Facility.
 - A new embayment north of Wetton Road and downstream of the proposed depot access road be provided to serve as a drop-off and pick-up point for staff and public transport.
 - Off-street parking be provided at a ratio of 4 bays per 100m² GLA for offices and as a total of 43 parking bays for the depot development as a whole
- Operational Phase:
 - The existing embayment south of Wetton Road and downstream of the proposed depot access road can serve as a drop-off and pick-up point for staff and public transport.

No other road upgrades are required at the remainder of the intersections in the study area (Clark & Liebenberg, 2021).

Contamination

Given the presence of an historical domestic waste body at depth beneath the site, and proximity to a wetland, the abstraction of groundwater at the site for any use is to be prohibited. This is included in the EMP.

Recommendations/ mitigation measures provided in the Remediation Order (Reference number:19/3/5/39) include the following:

- Prior to construction, the City must submit a monitoring plan, that includes all the monitoring requirements in this Order or as recommended in the specified reports, during and after construction of the bus depot.
- The City is required to provide a Construction Plan before commencement of the construction phase.
- During the construction phase, immediately after compacting the waste, groundwater and surface water quality monitoring must be undertaken, the result of which must be submitted to D: PCM shortly thereafter.
- Experts recommended the compaction of the waste and soil in situ, instead of trying to physically remove the waste prior to construction of the proposed bus depot, which would result in the least risk to the environment. The option most recommended by the SRK Consulting was to compact the waste beneath the proposed IRT bus depot for the following reasons:
 - To stabilise the subsurface geology to create a stable platform for further construction;
 - After compaction, the surface area of the waste with surrounding soil and groundwater will reduce, thereby reducing the release of contaminants from the waste;
 - Compaction will limit the availability of oxygen that may release contaminants through oxidation;
 - The compaction will also retard the rate of percolation of precipitation through the waste, thereby reducing the mobilisation of contaminants.
 - Compaction could also bring the waste closer to soil particles that assist in binding some contaminants.
- The first 0.5m of topsoil must be removed, followed by excavation, and stockpiling the next 1.5m of soil and material, sieving this material for homogeneity, compaction of the in situ underlying material, backfilling the stockpiled and processed material in layers of 150mm and compacting these layers to a high density.
- Should any large waste items, especially those that could contribute to soil and groundwater contamination such as lead batteries, copper structures such as geysers or radiators, be found during this groundwork, this waste must be removed and safely disposed of at a suitably authorised waste disposal facility. Records of the location of such waste items should be recorded as well as any waste manifest trail.
- Paving the proposed IRT bus depot with a low permeable surface must be undertaken as it has the following advantages:
 - Less precipitation will seep into the subsoil and percolate through the waste, which should retard the migration of contaminants into the groundwater. This could be considered as "capping" of a large portion of the waste body.
 - The proposed paving would act as a barrier to minimise the ingress of contaminants (oil or diesel spills or wash-water) from the operation of the proposed IRT bus depot into the subsoil.
 - The proposed paving of the proposed IRT bus depot would prevent further illegal dumping and burning of waste on this area and will convert a disturbed area into much needed road infrastructure.
- The surface water run-off must be managed by collecting all run-off water from the bus depot in a lined pond with sufficient capacity for possible re-use or discharge into the environment.
- Should the waste not be removed, an infiltration trench and/or sand-filter must be designed to mitigate the migration or facilitate the removal of heavy metals from the groundwater before it reaches the wetlands. This structure must be installed during the construction of the proposed bus depot. This trench must be positioned in a north – south alignment and positioned between the waste body and the wetland.

Groundwater monitoring

- Groundwater quality monitoring from the five monitoring wells on site (refer to **Figure jj**) must be conducted biannually during the construction and operational phases (during or just after the dry and wet seasons) using standard sampling procedures. The variables to be monitored must be recommended by the geohydrologist and the freshwater specialists. Analysis of groundwater samples must be analysed by an accredited laboratory.
- During the operational phase biannual groundwater monitoring must be conducted for two (2) consecutive years, after which the monitoring frequency and period will be revised. The results of the analysis must be recorded, summarised, interpreted with recommendations made and submitted not later than two months after the sampling.

- Should any monitoring wells be destroyed, vandalised, damaged, or lost during the construction and operating phases of the bus depot, the City must have them repaired/re-installed as soon as possible to avoid any gaps in the monitoring.
- Should any of these monitoring wells need to be repositioned or replaced other than as indicated above, the City must inform this Department prior to re-installing the wells.



Figure jj. Monitoring boreholes (blue), extent of waste fill (white line) and excavation pits (green)

Freshwater/wetland health monitoring

- Bi-annual wetland monitoring (during or just after the dry and wet seasons) must be undertaken during the operational phase for two (2) consecutive years, using at least five surface water samples, which are representative of the wetland surface water body.
- These samples must be analysed for the following: mercury, lead, copper and sink, phosphates, total inorganic nitrogen (free ammonia and nitrites), pH and electric conductivity. The results of these analyses must be processed in the same manner as the groundwater monitoring.

Landscaping

The landscaping strategy indicated in the project description would be implemented and this is included in the EMPr. The landscape plan is also appended to the EMPr.

- | | |
|----|--|
| 3. | List the specialist investigations and the impact management measures that will not be implemented and provide an explanation as to why these measures will not be implemented. |
|----|--|

Note that Steytler & Mugabe (2021) note the following their report:

"The potential impact can be effectively mitigated through the installation of a barrier fence between the remaining wetland area and the depot site. It is likely that Clear-Vu fencing would be utilised as a security fence around the depot's boundary and the standard mesh-size should suffice as a suitable barrier to dispersing adults". However, they, and the EAP, defer to the recommendations from the faunal specialist in that regard, noting this line from their report under recommendations: "Implement the mitigation measures recommended by the faunal specialist for *S. pantherinus* and any other aquatic fauna that may be at risk during the operational phase." Therefore, the suggestion for fencing made by the freshwater ecologist, is not included in the EMPr, in favour of the design measures provided by the zoologist.

Jackson & Martin (2021) state that "the 'future building' in Figure 1.2 of the faunal report should ideally not be included in this development". Note that this is addressed through the preferred alternative, therefore is not in the EMPr.

NCC (2021) also recommends the following for the no-go alternative "IAP management, rehabilitation", however this is not the preferred alternative, and the no-go alternative does not need to be managed through an EMPr through a Basic Assessment process. However, the City of Cape Town: Recreation and Parks Department have since commented in the need for an alien species management plan with focus on invasive category 1a, b, c and 2a of the CARA and as such, this requirement has been included in the EMPr.

The following mitigation measure from the MHI Risk Assessment is not included in the EMPr because it is related to future development, off-site, unrelated to the proposed development: "The development of land surrounding the site should be done with caution as not to pose unnecessary risks onto the surrounding communities. This caution is aimed at ensuring the adjacent developments are suitable for the risks imposed." It is, however, important for the City of Cape Town Planning branch to note this.

The geotechnical report recommends a few ground preparation options, noting that only one of those need to be considered and so the chosen one is included in the EMPr, and others not. The other options that are indicated in the groundwater report, and excluded from the EMPr, include the following:

- **Develop site as is with nominal surface layer works:** This is not a recommended option as it is likely that unacceptable levels of settlement will occur over time, which will require constant maintenance.
- **Remove all fill and refuse and replace with suitable engineered fill:** It is not an option to remove the fill and refuse and then build up the platform with suitable engineered fill, as a very strong seepage zone is present within the refuse layer. Dewatering of the site is considered impractical and would be extremely expensive. A pioneer layer of rock fill would also be required to be placed at the base of the excavation as the soils will be saturated and a firm base would be required to commence compacting imported engineered layers.
- **Dynamic Compaction:** Dynamic Compaction could be considered to improve the consistency of the fill/waste materials that characterise the site geotechnical profile. Dynamic compaction will be effective in compacting the fill material throughout the profile. A specialist contractor would need to be consulted to further evaluate the suitability of employing dynamic compaction at the site and to evaluate the likely cost (normally an expensive operation).
- **Rapid Impact Compaction (RIC):** RIC is a ground improvement technique using a hydraulic hammer fitted to a large track excavator which repeatedly strikes an impact plate at a rate of 40 – 80 blows per minute. Densification can apparently be achieved up to a depth of 6 m. Once compacted additional structural pavement layers would need to be imported. RIC equipment is available in Cape Town and a specialist contractor would need to be consulted to assess the suitability of the technique for the site. Cost are likely to be less than for conventional Dynamic Compaction.

The following recommendation from Clark & Liebenberg (2021) is included in the EMPr, but there is a qualifying statement added by the EAP: "The Wetton Road/ Racecourse Access Road intersection be signalised (i.e. upgraded to a signalised intersection) as proposed in the Kenilworth Racecourse Re-development TIA." The EAP has clarified this to note that, "should the Wetton Road/ Racecourse Access Road intersection signalisation not be constructed at the time it is required by the proposed depot, it must be developed in order to provide an acceptable intersection as per the transport specialist recommendations." This is acceptable because Clark & Liebenberg (2021) confirm that The intersection upgrade proposal was approved by the City of Cape Town's Transport Directorate as part of the development application process (for the Kenilworth Racecourse development) and the development, together with the intersection upgrade, is expected to commence in the short-term (5 years). Furthermore, given that the proposed intersection upgrade is on an existing road and within an urban area, as well as not located in any environmentally sensitive areas in terms of the City of Cape Town Biodiversity Network, it would not trigger the need for Environmental Authorisation, but is included as a condition of approval herein because it is a recommendation from the transport engineer/specialist.

There are no other measures relevant to the proposed development recommended by the specialists that have not been included in the EMPr for implementation, or which have not yet been implemented.

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

The accessibility and connectivity for the surrounding communities and businesses will be significantly improved upon. The communities will have safe, efficient, reliable, and affordable access to economic opportunities and the businesses would benefit from improved access for staff and clients. There would also be minor employment opportunities generated.

5. Explain how the risk of climate change may influence the proposed activity or development and how has the potential impacts of climate change been considered and addressed.

Given the location of the proposed development and Cape Town's history of drought, it is likely that the most significant impact of climate change would be related to variations in rainfall and water on site and extreme weather events (i.e., drought, flash floods, etc.). The primary manner in which to deal with such events is to address it as part of the stormwater management plan.

Cognisance has been given to climate change and its effect upon rainfall. Extrapolated rainfall data, from the City of Cape Town's rainfall grid, was based on the report titled "Impacts of Projected Climate Change on Design Rainfall and Stream flows in the Cape Town Metro Area" (Schulze *et al.*, 2011, in Saunders *et al.*, 2021). The extrapolated data was then applied to the proposed future development scenario. In addition, in order to meet the requirements of the City of Cape Town, the systems planned to serve the Wynberg bus depot has been based on the principle of Sustainable Urban Drainage Systems (SUDS) (Saunders *et al.*, 2021). The proposed stormwater system has been designed to manage water quantity as well as water quality of the anticipated additional run-off from the new hard surfaces on site. The permeable paving would provide quantity and quality control, with the proposed wet pool/ pond in the north-east corner allowing for further polishing, and flow control, into the adjacent wetlands (off-site). It should be noted that permeable paving can provide a high level of water quality treatment; over and above the two "markers" / target reduction pollutants (i.e., total suspended solids- TSS, and Total Phosphorous-TP) defined by the City of Cape Town (Saunders *et al.*, 2021).

The stormwater management plan proposed as part of the proposed development reflects the recommended "Scenario 1" (as labelled in the Stormwater Management Plan), which is indicated to be the only scenario which functions optimally from both a water quantity and quality perspective (Saunders *et al.*, 2021).

6. Explain whether there are any conflicting recommendations between the specialists. If so, explain how these have been addressed and resolved.

There have been no conflicting specialist recommendations.

There is, however, one note regarding baseline/ state of site: Soil is largely described as "slightly clayey sand", the soils classify as SM-SC or SC (Brown & Engelsman, 2020). Note that although Steytler & Mugabe (2021) note that an extremely high clay content was observed within dumped fill material, particularly in the raised portion of the north-western corner of the site, this is within the context of that seen in wetlands and formal data in this regard defers to the findings of the geotechnical investigation. This also implies that there are certain sections of the site that would have higher clay content than others and the geotechnical assessment did not focus on the wetlands, like the freshwater assessment did. These minor differences relate to the variability in the site conditions and do not affect the impacts assessed or mitigation measures provided in the EMPr.

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

None of the design alternatives under consideration would fall within any areas of heritage sensitivity (Lavin, March 2021) and so there are no further constraints to development that must be considered in that regard. The same applies to agricultural areas (Lanz, 2021). There are no mitigation measures or further findings that require consideration in this regard.

In terms of noise, the nature and scale of the proposed development is already such that impacts would be negligible and therefore no future mitigation is necessary. Traffic/transport impacts are also considered to be low and there are no infrastructure upgrades for the local road network recommended in the Transport impact assessment. The assessment does, however, confirm that the proposed design is appropriate.

Specialist assessment in terms of terrestrial and aquatic biodiversity, as well as fauna, align on finding that the site is heavily transformed, but that it may provide some function as a movement or foraging corridor for the WLT. Specifically in terms of the impacts on the WLT, the movement through the area would be accommodated through design such as including a stormwater pond, planted to mimic wetland conditions, located in the northeast corner of the site (nearest to the remaining corridor). The WLT Design Guideline measures have also been included in the design specifications of the EMPr. Aside from this, the site plays no other supporting or buffering functions to the nearby Kenilworth Racecourse Conservation area or Youngsfield military base (NCC, 2021). Alternative 2 would not encroach into the less degraded wetland areas and would also not encroach into the moderate SEI faunal habitat. The entire site is also located in a very transformed botanical area and so there would be no impact on CFSF in that regard, given that there is none present on site (NCC, 2021). The intention to remove some of the waste and "cap" it (through development of the depot layer works) would provide positive freshwater and botanical impacts and would also be sufficient from contamination perspective, given that it would close off/block the S-P-R linkages.

The contamination assessment does, however, confirm that the proposed end-use (i.e., a depot) is aligned with the SSV 2 limits and so the levels of certain contaminants detected on site do not legally preclude development of the proposed depot thereon.

The groundwater, botanical and contamination assessments align, and all reports align and address the contaminants found on site and potential for future contamination. There are several mitigation measures included in the design specifications of the EMPr (as per the groundwater and contamination assessment recommendations) in order to mitigate potential groundwater impacts/ water quality impacts to acceptable levels, and they are supported by the botanical impact assessment findings as well.

The stormwater management plan and landscaping proposed take cognisance of the findings of the freshwater impact assessment and the system has been designed to manage water quality and quantity on site, and to recharge the wetlands to the east with clean (i.e., treated/polished) run-off at appropriate volumes/flow rates. Planting of the stormwater pond would mimic wetland conditions, with a different strategy applied to the wet zones and drier zones of the pond so that plants do not perish. Planting for the remainder of the area would make use of CFSF plants in response to the botanical findings, as well as some trees, to maintain some of the current landscape character (i.e., there are a few large exotic trees on site).

Monitoring for groundwater, both in terms of recharge trends as well as early detection for contaminants is also included in the proposed development scope and the operational specifications of the EMPr.

Furthermore, given that there are several impacts associated with the construction phase, the EMPr contains many specifications in order to control, manage and mitigate these impacts as recommended by all specialists where construction phase impacts were identified.

The geotechnical findings are supported through the proposed development and the proposed ground stabilisation/remedial measures would be implemented, noting that this has been confirmed as adequate in the contamination assessment.

The potential impacts in terms of MHI risk are acceptable and the risks would not be present off-site, however there are several mitigation measures included in the design specifications of the EMPr to manage these risks (largely related to pool fires). The measures provided in Thackwray (2021) would also, to some degree, provide for protection against possible groundwater contamination in terms of leak prevention and maintenance.

The proposed landscaping design would be incorporated into the stormwater management system where needed and would also make use of appropriate plant species as recommended by the botanist and freshwater ecologist. It also provides for screening from the M5, Wetton Road and Bonnytown.

Management measures for design, planning, construction, and operation phase of the proposed development have also been integrated into the specifications contained in the EMPr, which would also be conditions of Environmental Authorisation (if granted).

Anticipated impacts of the two development footprint alternatives are similar for most aspects, however there is a clear preference for the preferred alternative (i.e., Alternative 2) from a freshwater and faunal perspective. The preferred alternative is intentionally comparatively smaller/narrower along the eastern edge in order to remain out of the less degraded wetland and the moderate SEI faunal habitat area, and to thus provide a comparatively wider WKT movement corridor off-site to the east. Furthermore, the south-west corner is narrower in the preferred alternative in order to remain beyond any structures associated with the Bonnytown informal settlement. Hence, the proposed preferred alternative in this application for environmental authorisation.

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| 8. | Explain how the mitigation hierarchy has been applied to arrive at the best practicable environmental option. |
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The implementation of the impact mitigation hierarchy which strives to avoid impacts and if unavoidable, minimise and remedy such impacts, whilst maximising positive effects, with the purpose of maintaining the interdependent sustainability requirements for biophysical system integrity and basic human well-being, avoiding inappropriate trade-offs that result in the loss of essential ecosystem functioning is one of the ways through which sustainability can be achieved (DEA,2014).

DEA³¹ (2014) explains that an impact mitigation hierarchy approach should be implemented to avoid inappropriate trade-offs that could result in the loss of important ecosystem functions and significant societal impacts. The impact mitigation hierarchy dictates those impacts should firstly be avoided, but if unavoidable, appropriate measures should be taken to minimize, reduce and rectify such impacts, in a manner that will achieve sustainability objectives and targets (DEA, 2014). If impacts cannot be avoided, minimized, reduced (over time), or rectified, consideration can be given to the implementation of offsets, depending on the significance of such impacts (DEA, 2014). DEA (2014) further cautions that offsets are therefore only to be used in exceptional circumstances to compensate

for residual impacts caused by development projects, whether these are unavoidable societal impacts, harm to ecosystem functioning or the loss of biodiversity.

The mitigation hierarchy has been applied at various levels through the conceptualisation of the preferred alternative for the proposed development, with the overall goal of the proposal being one which provides a depot within an appropriate context, on City-owned land, thereby avoiding dead mileage to provide for further, efficient, and effective connection of the MyCiTi network which does not adversely affect the natural and cultural environment/context to unacceptable levels.

The proposed development balances these considerations through reaching a compromise between maximum development footprint and avoidance of the more environmentally sensitive areas. It also serves to keep a corridor for faunal movement to the east of the site. In terms of biophysical environmental resources, the primary the less degraded and medium SEI faunal habitat would be avoided through the preferred alternative, however, most of the management of impacts would be achieved through minimisation/mitigation of impacts. The most significant impact from this perspective is the potential impact on the possible use by the WLT of the site as a movement corridor, which is ranked as Medium (-) with mitigation. Note, however, that this is considered acceptable in terms of the SEI held and there are rehabilitation components to the proposed development (i.e., landscaping, creation of the stormwater pond to mimic wetland conditions), and design measures as per the WLT design guidelines, and noting that there will still be some corridor to the east of the site. In certain case, further levels of the mitigation hierarchy are applied and particularly in cases where avoidance is possible for certain areas/aspects and not others, there would be on-site compensation implemented. Other notable adverse impacts anticipated include possible groundwater contamination (raised as a key concern in NCC (2021) as well as assessed by Naicker & Muller (2021)), ranked as Medium (-) with mitigation, however this has been confirmed by the specialists to be able to be mitigated to acceptable levels.

Many impacts cannot be completely avoided, given the minimum sizing/space requirements of the proposed depot in order to be functional, and given that the existing road is to be used as a basis for widening (which is preferable over the construction of a completely new road).

Note that, given the degraded and transformed nature of the site, no offsets have been recommended by the relevant specialists.

More detail on which aspects of the proposal relate to which levels of the mitigation hierarchy are provided in Table 19.

Table 19 Aspects of Proposed Development as they relate to the various levels of the mitigation hierarchy³⁰

| Mitigation hierarchy | Aspects of the project |
|----------------------|--|
| Avoid | The less degraded wetlands and Medium SEI faunal habitat areas would be avoided through the implementation of the preferred alternative (i.e., Alternative 2). Alternative 2 is located in the severely degraded wetland and in the low SEI faunal habitat. Other areas of indigenous vegetation would be avoided. Potential issues which could result from the water on site as well as surface water flow would be avoided through design, particularly for the stormwater system. |
| Minimise / mitigate | Construction work would be limited to times of the year where freshwater systems on the site and adjacent to the site are least vulnerable, as far as possible (Steytler & Mugabe, 2021). The EMPr contains several mitigation measures to reduce the adverse impacts of the proposed development either to (in the case of visual/ aesthetic, socio-economic and emissions) yield positive impacts or (as is largely the case with freshwater ecology, faunal and some botanical aspects) to minimise the adverse impacts to acceptable levels (i.e., low, or very low negative impact, or Medium negative in the case of one faunal impact, noting that this is acceptable in terms of the SEI). There are also several mitigation measures included in the planning specifications to protect against, and monitor for, groundwater contamination. Note that the EMPr contains specifications for the planning/detail design phase, construction phase, and operation phase in order to cover the full development cycle applicable to the proposed development (note, decommissioning is not applicable as it is not the intention of the Applicant to decommission the proposed MyCiTi infrastructure). |
| Restore | There are also rehabilitation requirements where construction activities may have resulted in changes to any particular area. The proposed landscaping includes indigenous plants which would contribute to the vegetation and aesthetics along the route. It requires wetland plants to be used in the stormwater pond and CFSF plants (representative of the historic indigenous vegetation type) for the rest of the site. |
| Offset/ compensate | There are aspects linked to compensation incorporated into the EMPr, namely the strict compliance monitoring and auditing specifications for the construction phase. |

³⁰ Table developed based on information derived from DEA (2014)

³¹ The Department of Environmental Affairs (DEA) has since been renamed to the Department of Forestry, Fisheries and the Environment (DFFE)

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| | <p>Fines are recommended for transgressions and the audit reports would be submitted to both the DEA&DP and the CoCT for their records.</p> <p>It should, however, be noted that terrestrial biodiversity offsets are not recommended by the botanist and wetland offsets are confirmed to be unnecessary by the freshwater ecologist (Steytler & Mugabe, 2021) due to the transformed and degraded nature of the environment in these areas.</p> |
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SECTION J: GENERAL

1. Environmental Impact Statement

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| 1.1. | Provide a summary of the key findings of the EIA. |
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Through Chand's investigation, which entailed inputs from the design team, the specialists and key I&APs (i.e., State Departments), a number of environmental impacts were identified and considered.

Those aspects that influenced the EAP's opinion on this question are primarily related to the following points:

- The various considerations which were applied to the selection of the site in terms of technical, legal, and contextual considerations prior to initiation of this Basic Assessment process as well as the environmental and biophysical sensitivities (and avoidance thereof) associated with both development footprint alternatives, noting that the preferred alternative (Alternative 2) deliberately avoids the more sensitive areas;
- The need and desirability of the proposal with regard to its contribution to the establishment of an efficient and safe public transport system as well as increased connectivity and economic access for previously disadvantaged communities, and improvements to safety and security on site;
- The positive impact on the local community in terms of job creation as well as improvements to public transport and economic access;
- The adverse environmental impacts anticipated and the degree to which these can be mitigated to acceptable levels (which, it has been found through specialist assessment, would be possible, given the context and function of the site)
- The manner in which the proposed development responds to the various specialist assessments and findings; and
- The limited risk associated with the site in terms of incidents pertaining to the fuel storage tanks.

In addition, the following aims of the proposal as well as the greater network with which it is associated have also been considered, noting that the proposed depot would play a supporting role in this, particularly for the Phase 2 trunk routes which provides connectivity between the Southern Suburbs, Wynberg and Claremont, across to the Cape Flats extremities of Mitchells Plain and Khayelitsha:

- Development of vibrant areas by removing barriers to access;
- Improvement of connectivity throughout the Metropolitan areas;
- Increased efficiency of people's movement and as an aid to the movement of commuters and development activities.
- Improved access and transportation routes to encourage future development and intensification of use;
- Decrease in walking distances from residential and places of work to public transport facilities; and
- Reinforced convergence on core routes and access points.

The baseline assessments conducted by the heritage practitioner and agricultural specialist found no sensitive areas or development constraints.

Biodiversity Impacts

Terrestrial Biodiversity

From a botanical perspective, the site is completely (+99%) covered with exotic grass and invasive alien plants (IAP's). There is almost no indigenous species present, thus no species of conservation concern was identified. Additionally, being a non-ecologically managed open space within an urban environment there is no natural fire regime (NCC, 2021). The reports of Brown & Engelsman, O'Brien & Engelsman and GEOSS 2020 all confirm the highly altered soil and water profiles; a result of dumped litter layers of up to 3m thick with subsequent drainage effects (NCC, 2021). As soil and water are the growth substrate, and therefore highly sensitive factors for the survival CFSF, this renders the site **irreversibly modified** and completely unsuitable for CFSF to persist (NCC, 2021). It is also noted that there is no recommendation for offsets included in the specialist report.

Jackson & Martin (2021) assessed the impacts of the proposed development on the functioning of the site and surrounds as a faunal corridor as well as the impacts on fauna associated with the site. The precautionary principal was applied, and it was found that the WLT may use the site and adjacent area to access non-breeding sites (or for foraging grounds) as individuals have been found north of the project area while the breeding site is located south of the project area (Jackson & Martin, 2021). The WLT is also the only terrestrial vertebrate species of conservation concern (SCC), that may be impacted by the proposed development.

In respect of the faunal corridor, the proposed development would only remove a portion of the corridor, leaving a width of 65m at its narrowest point in the south and 325m at its widest on Wetton Road (Jackson & Martin, 2021). Disturbance to faunal species during the operational phase was also assessed and the impacts were found to be Low (-) with mitigation, noting that the degraded area offers little ecological function, and the less degraded area maintains some functionality albeit very low (Jackson & Martin, 2021). If the portion of degraded wetland were to be lost, this would have little impact on the function of the corridor (Jackson & Martin, 2021).

Four faunal groupings were looked at by the faunal specialist: amphibians, reptiles, mammals, and avifauna. Overall, an SEI of Medium is applied to the WLT on site and for this rating, medium impacts for development are acceptable, provided that restoration occurs (Jackson & Martin, 2021). 'Low to Medium' SEI considers 'Medium' impacts acceptable for development activities provided that restoration activities are implemented (Jackson & Martin, 2021). Although not likely to be found on site, as species of conservation concern, assessments were also completed for the Cape Platanna, Micro Frog, and Black Harrier, all of which were found to have 'Very Low' SEI which means that 'Medium to High' impacts would be considered acceptable with no need for restoration (Jackson & Martin, 2021).

Aquatic Biodiversity

Regarding freshwater features within or surrounding the site, depression wetlands were identified within the site area as well as within the property in which the site is located. Whereas the entire study area is highly impacted and transformed, distinction is drawn between more sensitive (less degraded) and less sensitive (degraded) portions on the basis of remnant natural habitat and degree of soil disturbance (i.e., dumped waste and infilling) (Steytler & Mugabe, 2021). These two markedly differing portions of the wetland have been categorised as 'less degraded' and 'degraded' (Steytler & Mugabe, 2021).

The development footprint for the preferred alternative has been devised to remain solely within the "degraded" wetland identified by Steytler & Mugabe (2021). The degraded wetland (which is where the limits of the preferred alternative would be located) provides moderately low WET-Ecoservices, has a category E PES and low/marginal EIS. The less degraded wetland (which is not within the limits of the preferred alternative development footprint but lies adjacent to the east) provides moderately low WET-Ecoservices, has a category D PES and moderate EIS.

In terms impacts on the natural environment, there would be a combination of positive and negative impacts from a freshwater, botanical, and faunal perspective. Most negative impacts in this regard are anticipated to be low or very low, with the exception of the faunal aspect in terms of a reduced corridor for the WLT, which is ranked as Medium (-), noting that this acceptable in terms of the confirmed SEI of the site (as assessed by Jackson & Martin, 2021). Positive impacts in this regard are limited to two impacts, namely a single Medium (+) freshwater impact for potential improvements in water quality and a low (+) botanical impact regarding a reduction in pollution leachate.

It is believed that the identified impacts have been adequately addressed through changes in the preferred alternative footprint (e.g., avoidance of the more sensitive wetland and faunal habitat areas and Bonnytown, while providing a relatively wider faunal movement corridor to the east). Additionally, these impacts would be mitigated to acceptable levels through the final design and/or the strict implementation of the EMP. Several specialists have been involved to inform the investigation which provided both independence and transparency in the process as well as appropriate skills and expertise.

Construction Phase Impacts

Overall, Construction phase impacts would mostly be short-term, with the exception of the transformation of the site (which involved clearing vegetation, wetland habitat, faunal habitat, and removal of some faunal movement corridor) which would hold permanent impacts. Construction phase impacts for changes to the surface drainage regime would be neutral.

Traffic impacts would also be low (-). Similarly, freshwater impacts are anticipated to be low (-) or very low (-) during construction, with the exception of a single Medium (+) impact for potential improvements in water quality. There would be no botanical impact, given the transformed nature of the site and faunal and groundwater impacts would be low (-), with the exception of the faunal aspect in terms of a reduced corridor for the WLT, which is ranked as medium (-), noting that this acceptable in terms of the confirmed SEI of the site (as assessed by Jackson & Martin, 2021).

The positive impacts during this phase largely relate to the socio-economic impact of job creation and site safety and security (which are both rated as medium (+)). Very low (-) impacts are anticipated to be associated with typical construction-related aspects such as noise, dust, visual (aesthetics), and use of natural resources.

No impacts are anticipated regarding heritage, noise, agricultural production.

Operational Phase Impacts

Operational impacts are anticipated to be Medium (+) in terms socio-economic aspects such as employment opportunity and improved accessibility with high (+) impacts to improvements in safety and security of the site. There are also positive potential impacts associated with the reduction in greenhouse gas emissions. There would also be one low (+) botanical impact regarding a reduction in pollution leachate.

Negative impacts are also anticipated as a result of the proposed development. There would be low (-) impacts associated with resource use and the impacts associated with freshwater and faunal aspects would be low (-) or very low (-). Impacts on groundwater are anticipated to be low (-) to Medium (-) (with the specialist confirming that these can be mitigated to acceptable levels) and MH risk is very low (-). Traffic impacts are anticipated to be low (-) with limited difference in current congestion experienced.

Alternative Assessment

Alternatives have been assessed in the form of:

- the preferred development footprint alternative (i.e., Alternative 2);
- an alternative development footprint (i.e., Alternative 1); and
- the no-go or no-development alternative.

In addition, alternatives within Alternative 2 have also been considered in terms of stormwater management, and the best practicable remediation/ ground stabilisation approach.

In terms of the development alternatives assessed, many of the impacts identified would be the same across both (e.g. socio-economic, traffic, freshwater, faunal, botanical, MHI risk, groundwater, heritage and agricultural), but there has been a clear preference from a faunal perspective for the preferred alternative (Alternative 2). As such, the footprint has been devised to:

- avoid the less degraded wetland areas;
- avoid the moderate SEI faunal habitat; and
- to provide a slightly comparatively wider faunal movement corridor for the WLT (noting this is potential as no WLT were identified during the faunal assessment) (refer to
- **Figure ff**
-).
- narrow the footprint in the south-west corner to avoid any Bonnytown informal settlement structures.

Therefore, **Alternative 2 is preferred**.

The no-go alternative has also been assessed as the *status quo* of the site would continue as is.

The no-go alternative is not preferred as it in itself holds negative impacts from an ecological perspective which are largely similar to the proposed development (except for the medium negative faunal impact associated with the reduction in WLT corridor and low to medium negative groundwater impacts). As such, the conditions on site do not preclude Alternative 2 from being developed on site, with implementation of the mitigation measures, as the impacts identified can be mitigated to acceptable levels (noting that the Medium negative faunal impact is acceptable in terms of the SEI for the SCC of the site). Additionally, several positive socio-economic impacts would be foregone and the provision of the MyCiti services would be hampered.

Conclusion

The EAP has been encouraged by the fact that the applicant and design team have been receptive to the issues raised by both specialist and I&APs throughout the process and appropriate mitigation has been put in place. In short, the design has been a co-operative and iterative process between all parties concerned.

Overall, all development must, in terms of Section 24 of the Constitution, be ecologically sustainable, and economic and social development must be justifiable. The freshwater impact assessment, faunal impact assessment and botanical impact assessment have considered the sustainability of the ecological aspects on site and surrounding areas (particularly because there are sensitive conservations areas nearby). Impacts have been found to be low (-) or Very Low (-), with mitigation and so the proposed expansion can occur sustainably from an environmental perspective. Two exceptions are however noted. These include:

- The faunal impact on the WLT movement corridor. This is rated as being medium (-) with mitigation. This impact is considered acceptable in terms of the SCC SEI (Jackson & Martin, 2021).
- The potential impacts on groundwater (i.e., contamination of groundwater) which are ranked as medium to Low (-). However, Naicker & Muller (2021) confirm that these can be adequately mitigated.

The mitigation measures related to these exceptions are important and must be implemented. As such, they have been included as specifications in the EMP. Additionally, it is strongly recommended they are included as conditions of authorisation in this Basic Assessment Report.

No unacceptable loss (within the context of the ecological function and value of the site) of sensitive natural systems or areas would be occur as a result of the proposed development. While some loss of completely transformed vegetation and highly degraded wetland/ habitat would occur, this would be compensated for through design and management mitigation measures, particularly where movement of fauna (including the WLT), and groundwater contamination prevention are concerned. The sensitive natural assets nearby, namely the Kenilworth Racecourse Conservation Area/ Reserve and the Youngsfield Conservation Area would not be adversely affected by the proposed development.

Two key adverse environmental impacts have emerged through this assessment, which the impact would be Medium (-) and low to medium (-) and these are the impact of the loss of the faunal corridor on the WLT and the potential for contamination of groundwater. However, these impacts are acceptable in terms of the SCC SEI for the WLT as assessed by Jackson & Martin (2021) and confirmed that they can be mitigated to acceptable levels (Naicker & Muller, 2021) respectively. Furthermore, specialist assessment has confirmed that the proposed development would not impact on nearby sensitive areas, namely the Kenilworth Conservation Area and the Youngsfield Military base.

The unconstitutional actions of a previous regime, coupled with the historically poor/unjust spatial planning that did not cater for provision of public transport for all, would be rectified while ensuring that society as a whole can still benefit from the improved connectivity and access provided by the proposed development for generations to come. The economic and social aspects of the project are expected to be medium to high positive and would serve to provide connectivity, opportunity, and economic stimulus. Additionally, the project will provide improvements to safety and security on site to surrounding communities (including previously disadvantaged communities). This is believed to be justifiable in the context of historic prejudice, intergenerational sustainability, and equity. Financial sustainability would be provided by the City of Cape Town through their various contracts for operations.

In conclusion, it is believed that the preferred alternative represents responsible development and would be an asset to the community and greater City of Cape Town, which is aligned with spatial planning goals. The proposed development would not compromise the ecological integrity or function of the site (when considered against the extent to which it currently provides for such services) and that of the nearby sensitive areas (Kenilworth Racecourse Conservation Area and Youngsfield Military base). Furthermore, no impacts would occur on any heritage/cultural areas of value to the local communities in terms of the NHRA.

It is therefore believed that the preferred alternative (i.e., Alternative 2)/ the preferred development footprint could be authorised (noting that a specific plan should not be authorised as the details thereof may be further amended), subject to the implementation

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| of the mitigation measures included in this report and the EMPr, and also subject to resolution of any potential issues that may emerge through the current public review period of this report. | |
| 1.2. | Provide a map that that superimposes the preferred activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers. (Attach map to this BAR as Appendix B2) |
| | Refer to Figure gg and to Appendix B2 . |
| 1.3. | Provide a summary of the positive and negative impacts and risks that the proposed activity or development and alternatives will have on the environment and community. |
| Refer to Table 17 and Table 18 for more detail. | |

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

2.1.

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

The EMPr has taken into account the impacts identified during this impact assessment process and has included all mitigations measures recommended by the independent specialists as well as those included by the EAP. Mitigation measures (i.e., environmental specifications) have been incorporated into all phases of development barring decommissioning (as this is not the intention of the Applicant), which facilitates integrated environmental management and the appropriate consideration of environmental issues at all levels and stages of the project.

The EMPr would be a legally binding document which would have to be implemented by the Applicant. There is also another layer of reporting contained in the EMPr, whereby an independent auditor would be involved in a regular basis during the construction phase and operational phase.

The impact management objective and outcomes are included in the EMPr and summarised in **Table 20**.

| Table 20 Summary of impact mitigation measures and outcomes as included in the EMPr | | | |
|---|---|---|---|
| No. | Impact/ Aspect of the proposed development | Impact Management Objective | Impact Management Outcome |
| 1 | Waste Management | To prevent pollution/contamination associated with the generation and temporary storage of general waste, hazardous waste construction rubble and litter generated by the workforce on site. | No non-conformances and no pollution of soil, groundwater and/or stormwater as a result of waste generation and management activities. |
| 2 | Soil and Water Pollution Management | To prevent impacts on the wetland system, to prevent groundwater and freshwater pollution / sedimentation associated with the handling storage and use of hazardous materials or materials that have the potential to cause environmental harm. | No non-conformances, no evidence of sedimentation and no pollution groundwater and/or stormwater or any water courses (including wetlands) as a result of the construction activities. |
| 3 | Protection of natural Features, Fauna and Flora | To ensure that no vegetative cover is removed and/or impacted on outside of the approved works area (i.e., the site extent). To protect any indigenous vegetation and prevent impacts on fauna found on the site To preserve the top layers of soil for use in the final landscaping. Appropriate temporary storage and stockpiling of topsoil to prevent erosion, sedimentation, and dust pollution. To avoid intrusion into the adjacent natural areas and prevent related impacts. | No removal of vegetation and/or other impacts on any vegetative cover in the area outside of the site No damage or defacing of any natural features situated in or around the site. No negative impacts on the breeding seasons or movement of fauna found in the vicinity of the site. No harm or destruction of faunal habitats beyond site or the death of any animals on the site or as a result of actions of removing fauna off site. |
| 4 | Protection of any and Palaeontological and Archaeological Resources | Protection of archaeological and/or palaeontological resources on, or adjacent to the site. | No non-conformances in terms of the specifications contained in the EMPr and no impacts on such resources. |
| 5 | Noise Management | To avoid and/or minimise impacts on the adjacent residential communities and ensure that any such impacts are appropriately dealt with to prevent further impacts in the longer term. To provide a forum for any Interested and/or Affected Parties to raise their concerns and log complaints for remediation action and prevention of similar incidents. | No disruptions or nuisance to adjacent communities caused by noise from the construction site. Effective complaints handling. No repeat complaints received |
| 6 | Dust Management | No unacceptable levels of dust. To avoid and/or minimise impacts on the | No disruptions to traffic, no nuisance to adjacent communities caused by dust. |

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| | | adjacent road network and communities and ensure that any such impacts are appropriately dealt with to prevent further impacts in the longer term. To prevent wind and water erosion and/or sedimentation of any natural features. To provide a forum for any Interested and/or Affected Parties to raise their concerns and log complaints for remediation action and prevention of similar incidents. | Effective complaints handling. No repeat complaints received. |
| 7 | Aesthetics/ Visual | To ensure that visual impacts are avoided as far as possible, and where these cannot be altogether avoided, that it is reduced to acceptable limits. | No unacceptable visual impacts occur as a result of construction activities. |
| 8 | Hazardous Substances Management | To prevent pollution or fire associated with the handling storage and use of materials deemed hazardous to human health or the environment. | No non-conformances and no pollution of soil, groundwater and/or stormwater as a result of the construction activities. No fires as a result of the handling / use of fuel. |
| 9 | Site Access, Routes and Traffic Management | To avoid and/or minimise impacts on the adjacent road network and road users any such impacts are appropriately dealt with to prevent further impacts in the longer term. To avoid construction related impacts associated with the movement of construction vehicles on adjacent residents. | No disruptions to traffic or adjacent residents, no damage to vehicles and related claims and no nuisance to adjacent communities caused by dust. |
| 10 | Labour Relations, Facilities and Site Health and Safety | To ensure the safety of all site personnel as well as the adjacent land users. | No injuries / incidents on site and emergency situations managed effectively. No safety breaches. |
| 11 | Incident Management | To guide the way in which emergencies and/or environmental incidents are handled on site and remediate any damage appropriately. To prevent the starting of fires on site. | No non-conformances and no adverse impacts on the environment as a result of emergency situations and/or environmental incidents. No fires started on the site. |
| 12 | Resource Use (Raw Materials and Resources) | To prevent excessive and unnecessary use of natural resources and wasting of natural resources during the construction phase. | Development of an attitude towards a reduction in natural resources consumption where feasible and possible |
| 13 | Site Clean-up and Rehabilitation | To prevent impacts on the environment as a result of the conclusion of construction activities and any related impacts requiring rehabilitation actions prior to the contractors leaving the site. | No non-conformances with the specifications contained within the EMPr. |
| 2.2. | Provide a description of any aspects that were conditional to the findings of the assessment either by the EAP or specialist that must be included as conditions of the authorisation. | | |
| | <ul style="list-style-type: none"> Agreement between all relevant stakeholders, including the City of Cape Town, DWS, the Freshwater Ecologist, the Environmental Practitioner and the Architect should be reached prior to the detailed design of the detention pond being carried out (Saunders et al, 2021). The EMPr and associated appendices (Appendix H) must be implemented, and the requirements therein considered and observed as conditions of authorisation; Mitigation measures noted from this BAR are included in the EMPr (refer to Appendix H). The EMPr should be incorporated into all tender and contract documentation. An ECO must be employed throughout the duration of the construction phase of the activity and the Applicant should also ensure that operational phase recommendations are strictly adhered to. The final Site Plan is to be approved by the City of Cape Town prior to commencement of construction; The final approved (by City of Cape Town) Site Plan is to be provided to the DEA&DP for their information prior to the commencement of construction; The final Stormwater Management Plan (refer to Appendix G(c) for the indicative stormwater management plan) should be approved by the City of Cape Town and be implemented throughout operational phase of the development. The draft landscaping plan must be approved by the City of Cape Town prior to commencement of the construction phase. The final approved (by City of Cape Town) Landscaping Plan is to be provided to the DEA&DP for their information prior to the commencement of construction; | | |

- As updated plans and documentation are required in terms of the EMPr which can only be completed upon detailed design of the proposed development, the updating of these items should not necessitate an Amendment Application for an amendment to the EMPr for each site. Alternatively, these aspects need not be formally included in the EMPr, but must still be provided to the ECO, as they would require oversight. The updates are restricted to the following:
 - Incorporate conditions and specifications imposed by the Department of Environmental Affairs and Development Planning if Environmental Authorisation is granted;
 - Incorporate conditions and specifications imposed by the Department of Water and Sanitation as part of the Water Use License;
 - Reflect the final approved Site Development Plan;
 - Reflect the final approved Stormwater Management Plan; and
 - Reflect the final approved Landscaping Plan.

2.3. Provide a reasoned opinion as to whether the proposed activity or development should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be included in the authorisation.

The decision for the authorisation lies with the Competent Authority and should be taken based on the information provided. The decision should be taken by considering all impacts and the way they weigh up against one another, as well as the I&AP comments and the responses provided thereto.

The report contains clarity on issues raised during the very early stages of project conception and has incorporated the comments from I&APs on the pre-application draft Basic Assessment Report. It is noted that the comments delivered on the post-application draft Basic Assessment Report would still need to be considered by the EAP and incorporated into the BAR.

Notwithstanding, all issues raised to-date have been addressed in this report and in the proposed development where appropriate.

Independent specialist assessment has culminated in recommendations to approve the proposed development or to indicate that the impacts of the proposed development would be acceptable, with implementation of mitigation measures. With the implementation of mitigation measures, any impact in this regard (noting that there are none anticipated from a heritage, noise, or agricultural perspective) can be mitigated to low, or very low negative levels of significance. There are two exceptions with the faunal impact on the WLT movement corridor being medium (-), with mitigation, but this impact is considered acceptable in terms of the SCC SEI (Jackson & Martin, 2021). The other exception is that of potential impacts on groundwater (i.e., contamination of groundwater) which are ranked as medium to Low (-), but Naicker & Muller (2021) confirm that these can be adequately mitigated. The mitigation measures are important and must be implemented. That is why they are included as specifications in the EMPr and are strongly recommended as conditions of authorisation in this Basic Assessment Report. The site also holds capacity in terms of the availability of essential services and the stormwater management plan is aligned with the requirements of the City of Cape Town and freshwater ecologist. The proposal would also provide accessibility and safe public movement through the area as well as support the greater MyCiTi transport infrastructure. There are no significant adverse environmental impacts anticipated whereby impacts would be unacceptable, and so there is, with the information available at present, no reason why the preferred alternative of the proposed development should not be granted Environmental Authorisation in that regard.

Should the DEA&DP grant Environmental Authorisation for the proposed development, they cannot do so until the public participation process has concluded. It is also critical that mitigation measures required by specialists and specifications documented in the EMPr are adhered to. The remaining recommended conditions of authorisation are listed in Section J 2.2. above. The report for final decision-making would be provided to the DEA&DP once the public participation process has been concluded.

2.4. Provide a description of any assumptions, uncertainties and gaps in knowledge that relate to the assessment and mitigation measures proposed.

It is uncertain whether the Contractor would implement the EMPr as required, however there are legal mechanisms in place to avoid this and the EMPr (and EIA Regulations, as amended) includes a requirement for auditing and the Applicant/Holder of the Environmental Authorisation would be required to include the EMPr in all contract documentation.

The impacts indicated for the "no-go" alternative have not been contemplated "with mitigation" as, in some cases, there is no legal provision for implementation of specific measures in the form of an EMPr beyond the general laws that apply under existing rights (e.g., Municipal By-Laws and NEMA "duty of care").

This report is currently under public review and comments received thereon will be added to Final Basic Assessment Report, which will be submitted to the DEA&DP for decision-making.

It is assumed that all information provided by the project team and other parties are true and correct and that the intention of the Applicant is indeed to contain the proposed development within the proposed footprint. It is also assumed that the proposed development scope would be developed as per the description provide in this report, noting that deviations from this may trigger provisions of the NEMA, NWA or NHRA.

Note that assumptions related to specialist assessments are indicated in the relevant specialist reports in Appendix G. There are, however, no significant gaps in knowledge in any of those assessments that would reduce confidence in the findings. There are no uncertainties directly pertaining to the proposal. The general political climate and management priorities within the City of Cape Town and other state departments are uncertain, however this is not considered material in terms of the DEA&DP's ability to make a decision on the application.

2.5. The period for which the EA is required, the date the activity will be concluded and when the post construction monitoring requirements should be finalised.

Refer to **Table 21** for the various suggested approval validity periods.

Table 21. Suggested EA Approval Periods

| | | |
|------|--|---|
| i. | the period within which commencement must occur; | 5 years |
| ii. | the period for which the environmental authorisation is granted and the date on which the development proposal will have been concluded, where the environmental authorisation does not include operational aspects; | <u>10 years</u> (this is recommended given that the City of Cape Town procurement and contracting processes take time to resolve and, further, there are temporal limitations on when construction activities can occur nearby the aquatic aspects within and adjacent to the route, and lastly, the construction of the depot would be phased as demand along the routes increases, but the application is for the entire depot as indicated in the site plan. The first phase would be completed in <u>10 years</u> and the listed activities triggered would then be completed. The full depot (as proposed and described herein) would likely be developed by 2052. |
| iii. | the period for which the portion of the environmental authorisation that deals with operational aspects is granted. | 1 year after construction of the first phase (i.e. when the listed activities would be triggered) (this is recommended so that an audit can be done to confirm the development proposal has been developed as planned/intended) |

3. Water

Since the Western Cape is a water scarce area explain what measures will be implemented to avoid the use of potable water during the development and operational phase and what measures will be implemented to reduce your water demand, save water and measures to reuse or recycle water.

The proposed depot would require approx. 67.8kl per day at a peak flow of 5.49 l/s with a flow for fire at 100l/s (GIBB, 2018). Potable water would also be used for landscaping because no boreholes for water use would be permitted.

Water saving principles have been included in the EMPr (refer to **Appendix H**) for the construction and operational phase.

Some examples include the following:

- Conduct activities in accordance with any water restrictions set by the local Municipality in terms of the applicable By-Law which may be in place at the time.
- At the time of writing this document, the City of Cape Town has just recovered from a severe drought. With that in mind, Contractors are encouraged to use treated effluent water for construction activities as far as possible. Contractors may apply to the City for the use treated effluent water.
 - Treated effluent can be supplied in three different ways:
 - By connecting to the treated effluent pipe network;
 - By hiring a metered treated effluent standpipe; and
 - By collecting it directly from the wastewater treatment works.
- To apply for supply of treated effluent water, residents should please visit the City's website: www.capetown.gov.za/treated-effluent. This page outlines the application process and contains all relevant guidelines and forms, as well as copies of related by-laws for download.
- The City's Water By-laws prohibit the use of drinking water for non-structural work such as dust control.
- Where the use of potable water is required, such as for mixing of cement, the Contractor must submit an application for the use of potable water on site prior to starting construction.
- As far as possible, limit the use of potable water to activities which require them.
- It is suggested that a temporary storage tank for rainwater be set up at the construction camp, which could collect rainwater during the construction phase for use in the works.
- Dripping taps/ leaking pipes should be addressed immediately to limit waste of water.

Design measures include the following:

- Water Reuse / Recycling
 - 80-95% of grey water from wash facilities (including the wash bays) to be recycled and re-used; and
 - Above recycle through biological processes in a controlled environment to achieve predictable results for safe re-use.
- Rainwater Catchment Systems (subject to detail design and viability)
 - Rainwater catchment from roofs; and
 - Rainwater storage (rain barrels and cisterns) and re-use for on-site irrigation.
- Pervious Surfaces
 - Porous block paving system reducing flow of pollutants off site; and
 - Porous Asphalt system reducing flow of pollutants off site.
- Water efficient fixtures & flow restrictors.

4. Waste

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

Construction waste will include general waste (such as plastic packaging, strapping, lunch wrappers.), rubble (like broken asphalt, waste concrete) and limited quantities of hazardous waste items (e.g., paint tins, etc.) and waste oil resulting from the servicing or

repair of vehicles and plant on site. Construction contractors will remove the waste to registered landfill sites or approved recycling facilities. This would amount to ~8667m³ per month (information provided by GIBB in 2021), noting that the bulk of this would be in the first three months.

Given that the EMPr requires the use of portable toilets, no wastewater would be discharged into the existing sewer system during construction.

The construction phase is anticipated to continue over a period of approximately 18 months for the construction of the first phase.

Measures for the reduction, reuse and recycling of waste would apply only to the construction phase. Some measures have been included in the EMPr (**Appendix H**) and these include the following:

- Make use of locally supplied building materials where possible.
- Reclaimed building materials should be used where possible.
- In accordance with the integrated waste management approach to be followed through the construction phases of the development, materials used or generated by construction, or the construction areas of other City of Cape Town projects nearby shall be re-used as far as possible.
- No materials containing invasive plant seeds, litter or contaminants may be imported. The Supplier shall be informed of the sites of origin of imported gravel, sand, stone, etc. and shall have the authority to reject imported material if deemed necessary.
- Durable building materials to increase the lifespan of the developments should be used.
- Low VOC paints & building materials should be used.
- Adequate storage facilities for raw materials should be provided in order to minimise damage during construction works.
- Where possible, suppliers with a green footprint or certification are to be used.

For operational waste, about 10 to 20 240l wheelie bins would be used to store refuse on site for removal by a private contractor (refer to **Appendix E16**). In terms of measures to minimise waste, the following would be implemented and are included in the EMPr:

- The use of dedicated recycling bins will be implemented during the operational phase of both depots.
- Grey water will be recycled.
- Durable building materials to increase the lifespan of the developments would be used.
- Low VOC paints & building materials would be used.
- The wash bays will use recycled water (subject to detail design and viability).

5. Energy Efficiency

| | |
|------|--|
| 8.1. | Explain what design measures have been taken to ensure that the development proposal will be energy efficient. |
|------|--|

Energy efficiency would be encouraged through the following measures:

- Lighting
 - Even top lighting to workshops to avoid use of artificial lights – Roof lights and Clerestory windows would be used;
 - Increased daylighting to wash areas to avoid use of artificial lights. Translucent wall and roofing materials would be used; and
 - Use of energy saving light fixtures.
- Heating and Cooling
 - Shading devices to protect fenestrations against direct sunlight and heat gain;
 - Thermal insulation to building envelope; and
 - Use of thermal building mass.
- Energy Production
 - PV panels on roofs (where possible and feasible); and
 - Solar Hot Water / Heat Pumps.

SECTION K: DECLARATIONS

SECTION K: DECLARATIONS

DECLARATION OF THE APPLICANT

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

I, **Natalie Billings**, ID number **7207310020080**, duly authorised thereto by the City Of Cape Town, hereby declare/affirm that all the information submitted or to be submitted as part of this application form is true and correct, and that:

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

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

Natalie Billings Digitally signed by Natalie Billings
Date: 2024.02.21 14:23:06 +02'00'

Signature of the Applicant:

Date:

THE CITY OF CAPE TOWN – URBAN MOBILITY

Name of company (if applicable):

DECLARATION OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

IFabio Venturi (2021/4088)....., EAPASA Registration number as the appointed EAP hereby declare/affirm the correctness of the:

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



Signature of the EAP:

20 February 2024

Date:

Terramanzi Group (Pty) Ltd

Name of company (if applicable):

DECLARATION OF THE REVIEW EAP

NOT APPLICABLE

DECLARATION OF THE SPECIALIST

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

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

I Johann Lantz as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
 - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
 - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

Signature of the Specialist:

Date:

JOHANN LANTZ - SOIL SCIENTIST
Name of company (if applicable):

DECLARATION OF THE SPECIALIST

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

I Sean Aitern, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
 - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
 - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.


Signature of the Specialist:

8/7/2021
Date:

NCC Environmental Services (pty) Ltd
Name of company (if applicable):

DECLARATION OF THE SPECIALIST

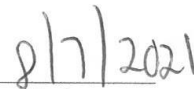
Note: Duplicate this section where there is more than one specialist.

I Richard O'Brien as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
 - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
 - am not independent, but another specialist (the "Review Specialist") that ~~meets the~~ general requirements set out in Regulation 13 of the ~~NEMA EIA Regulations~~ has been appointed to review my work (~~Note: a declaration by the review specialist must be submitted~~);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.



Signature of the Specialist:



Date:

Richard O'Brien

Name of company (if applicable):

DECLARATION OF THE SPECIALIST

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

I, Amber Jackson, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
 - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
 - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

Signature of the Specialist:

Date:

Name of company (if applicable):

DECLARATION OF THE SPECIALIST

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

I Charl Muller, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
 - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
 - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

Signature of the Specialist:



8/7/2021
Date:

Name of company (if applicable):

GEOSS South Africa

DECLARATION OF THE SPECIALIST

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

I Karin Liebenberg, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
 - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
 - ~~am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);~~
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.


Signature of the Specialist:

8/7/2021
Date:

GIBB (Pty) Ltd

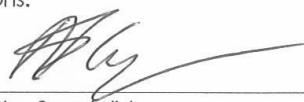
Name of company (if applicable):

DECLARATION OF THE SPECIALIST

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

I NICK STEYUER, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
 - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
 - ~~am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);~~ AB
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.


Signature of the Specialist:

2/7/2021
Date:

ENVIROSWIFT
Name of company (if applicable):

DECLARATION OF THE SPECIALIST

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

I JENNA LAVIN, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
 - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
 - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.


Signature of the Specialist:

8/7/2021
Date:

CJS HERITAGE
Name of company (if applicable):

DECLARATION OF THE SPECIALIST

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

I **Johann Lanz – soil scientist (sole proprietor)**, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
 - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
 - ~~am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);~~
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.



15 February 2024

Signature of the EAP:

Date:

Johann Lanz (Pr.Sci.Nat.) SoilZA

Name of company (if applicable):

STATEMENT OF INDEPENDENCE

DECLARATION BY THE SPECIALIST

I, **Sean Altern**, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that I:

- In terms of the general requirement to be independent:
 - other than fair remuneration for work performed in terms of this application, have no business, financial, personal, or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
 - am not independent, but another specialist (the 'Review Specialist') that meets the general requirements set out in Regulation 13 has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- in terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all the requirements.
- have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared or to be prepared as part of the application; and
- am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (as amended).

A handwritten signature in black ink, appearing to read 'Sean Altern', is located below the declaration text.

Sean Altern - Consultant

NCC Environmental Services (Pty) Ltd

15 February 2024

DECLARATION OF THE SPECIALIST

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

I Richard O'Brien....., as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
 - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
 - ~~am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);~~
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

SRK CONSULTING - Certified Electronic Signature

 **srk consulting**
557448746000/Ltdbr
ZOB 3013 0120 OSR11 10/02/2014
SRK CONSULTING (Pty) Ltd
jafer@srk.co.za
This document is signed electronically using the SRK Signature Database

19 February 2024

Signature of the EAP:

Date:

SRK Consulting (South Africa) (Pty) Ltd

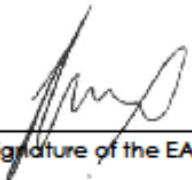
Name of company (if applicable):

DECLARATION OF THE SPECIALIST

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

I Amber Leah Jackson, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
 - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
 - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.


Signature of the EAP:

19.02.2024

Date:

Fauna & Flora (Pty) Ltd T/A Biodiversity Africa

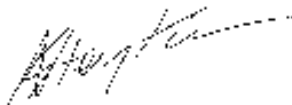
Name of company (if applicable):

DECLARATION OF THE SPECIALIST

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

I ...Nick Steytler....., as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
 - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
 - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.



Signature of the EAP:

Date: 15 February 2024

EnviroSwift Western Cape

Name of company (if applicable):

DECLARATION OF THE SPECIALIST

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

I, JOHN BROWN, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
 - ☒ other than for remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
 - ☐ am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA BIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this LIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs of material information that has or may have the potential to influence the decision of the Department, or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the LIA Regulations.

Signature of the EAP:

JBrown

Date:

14/02/2024

Name of company (if applicable):

SRK Consulting South Africa (Pty) Ltd

DECLARATION OF THE SPECIALIST

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

I, Zita Harilall....., as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
 - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
 - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.



Signature of the EAP:

14 February 2024

Date:

GEOSS SA (Pty) Ltd

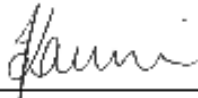
Name of company (if applicable):

DECLARATION OF THE SPECIALIST

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

IJenna Lavin....., as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
 - o other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
 - o am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.



Signature of the EAP:

14/02/2024

Date:

CTS Heritag

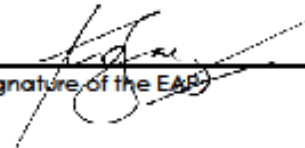
Name of company (if applicable):

DECLARATION OF THE SPECIALIST

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

I Adrian W.D. Jongens, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
 - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
 - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work. (Note: a declaration by the review specialist must be submitted);
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.


Signature of the EAP

14 February 2024

Date:

Jongens Keet Associates

Name of company (if applicable):

DECLARATION OF THE SPECIALIST

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

I, Karin Liebenberg, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
 - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
 - ~~• am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);~~
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.


Signature of the Specialist:

14/02/2024

Date:

GIBB (Pty) Ltd

Name of company (if applicable):

DECLARATION OF THE REVIEW SPECIALIST

I, as the appointed Review Specialist hereby declare/affirm that:

NOT APPLICABLE

SECTION L: REFERENCES

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