

## EXECUTIVE SUMMARY

### THE PROPOSED IRT PHASE 2A TRUNK ROUTE: PORTION E1, 3.5KM OF GOVAN MBEKI ROAD FROM INTERSECTION WITH HEINZ/OTTERY ROAD TO APPROX 130m EAST OF LINK ROAD, MANENBERG & GUGULETHU

#### INTRODUCTION

This document is the draft post-application Basic Assessment Report (BAR) for the development of the proposed Integrated Rapid Transit (IRT) bus lanes as part of the IRT Phase 2A Trunk route development. The focus area of this application for Environmental Authorisation process comprises of the proposed upgrades to Govan Mbeki Road / M9 from the corner of Heinz/Ottery Road to just beyond Link Road approximately 3.5km to the east. Refer to the duplication of Figure 1 below for the location of the affect stretch of road.



Duplication of Figure 1

Application has been made to the DEA&DP for Environmental Authorisation and this document is currently being subjected to a 35-day public review period. All comments raised in relation to the draft BAR (i.e., this report) will be considered, and where appropriate, changes will be incorporated into the final BAR for submission to the competent authority (the Department of Environmental Affairs and Development Planning- DEA&DP) for their final decision-making. Note that while I&AP contact information is not disclosed as part of this report, all contact details of I&APs will be included in the final BAR to the DEA&DP for decision-making and will become part of the public record.

The most pertinent details regarding the environmental process are captured in this executive summary. Full details are provided in the rest of the BAR and the Appendices, which, *inter alia*, contains the full specialist reports.

#### PROJECT DESCRIPTION

Phase 2A of the City of Cape Town's MyCiTi IRT System operates along the Lansdowne-Wetton Corridor which currently Phase 2A of the City of Cape Town's MyCiTi IRT System operates along the

Lansdowne-Wetton Corridor which currently carries in the order of 50% of all road-based public transport trips within the City. The proposed project for Phase 2A is to link the south-eastern suburbs of Cape Town (Metro- Southeast) with nodes along the Southern Suburbs rail line. The two principal trunk routes will operate between Mitchells Plain and Claremont and Khayelitsha and Wynberg and consists of both trunk and feeder services.

The focus area of this application for Environmental Authorisation process comprises of the proposed upgrades to Govan Mbeki Road / M9 from the corner of Heinz/Ottery Road to just beyond Link Road approximately 3.5km to the east (refer to **Error! Reference source not found.** and Appendix A1). This section of road passes the Edith Stephens Nature Reserve (ESNR) to the south and the Lotus Canal to the north, as well as a sensitive biodiversity area to the north just after the Duinefontein Road intersection.

The proposed scope includes the following:

- Up to four dedicated bus lanes;
- Groundworks in the centre of certain points along the route for future construction of a bus station (note that this would only be at certain points throughout the route where they are required in terms of logistics and availability of space);
- General traffic lanes, typically comprising of four lanes (two in either direction);
- A road shoulder;
- A strip for landscaping and service (e.g., streetlights) installation; and
- A sidewalk for pedestrian and cyclist use (i.e., Non-Motorised Transport- NMT- lanes).

The proposal would also entail an elevated road link at the Govan Mbeki Road/ Duinefontein Road intersection (the maximum footprint thereof is assessed in this Basic Assessment process as part of the footprints assessed). The detailed design of the cross-section throughout the route will occur in the future and it is important to note that it may differ slightly from one section of the route to the next. The nature of the cross-section would be determined by constraints on the ground. The cross section applied (i.e., that with a bus station versus that without a bus station) would depend on the logistic requirements in terms of where bus stations are needed as well as whether or not there is sufficient space available for the construction of the foundation for a station. Note that, with regard to the bus stations, only the foundation works would be carried out as part of this proposed development. The bus stations themselves would be constructed at a later stage, under a separate tender process.

The proposed new bus (Bus Rapid Transit-BRT) lanes to be included within the existing carriageway would be reserved for the exclusive use of the MyCiti buses which will be serviced by a new fleet of vehicles. Other vehicles, such as heavy vehicles, taxis, Golden Arrow Buses, and passenger vehicles, will not be permitted on the BRT-lanes and will remain on the general traffic lanes of the existing carriageways.

Part of the proposed road works would include changes to the Lotus Canal. In terms of the proposed cross-section, the pedestrian/cycle lane/sidewalk component of the proposed upgrades would encroach into the Lotus Canal by approximately 3m, but the encroachment thereof would extend further, between 3m and 6m at two points. Note that this would also expand over three existing outtake culverts opposite Edith Stephens Wetland Park, and the culverts would be left as is. A new retaining/flood protection wall (approx 250mm wide with height ranging up to 2m high depending on existing slope) is proposed at specific low points identified along the Lotus Canal (which would stretch along the majority of the Lotus Canal adjacent to E1, west of the Duinefontein Intersection), along the southern bank thereof. The wall would have a balustrade on top to protect vehicles from leaving the road and crashing into the Lotus River Canal. The two existing pedestrian bridges in this stretch would also be demolished and replaced in a new position (slightly to the east of the current locations) and the existing bridge/s would remain in place during construction to provide continued access until the new bridges are built.

The proposal would also require additional stormwater infrastructure. It is proposed to construct a new minor stormwater drainage system to serve Govan Mbeki Road as part of the proposed development. This system would either tie into the existing minor stormwater drainage system or have new inlets into the Lotus River Canal constructed. The system would comprise a series of

underground pipelines to convey the stormwater from the road into existing stormwater lines, or to catchpits and then to 375mm diameter outlet pipes, which would daylight into the Lotus Canal.

There would be no requirements for bulk services as the proposed development is the expansion of an existing road. With respect to streetlights, existing lights would be replaced with Light Emitting Diode (LED) lights, which require less energy.

A draft landscaping plan has been prepared for the proposed road upgrades. Landscaping would entail a combination of planting of grasses, trees, groundcovers, and paving (OVP, 2018). In more high traffic areas, there would be a combination of pedestrian crossings (i.e., informal, painted) as well as some resilient urban elements such as concrete seat walls (OVP, 2018). There would also be some larger palms as well as rock and stone fields for space-defining elements (OVP, 2018). At the larger nodes, the aforementioned elements would also be included (OVP, 2018).

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 3) are important:

- Approximately 100m<sup>2</sup> of Cape Flats Dune Strandveld, approximately 400m<sup>2</sup> of Cape Lowlands Freshwater Wetlands, and approximately 200m<sup>2</sup> of Cape Flats Sand Fynbos would be cleared, however the state of vegetation in these areas is highly degraded or completely transformed (Altern, 2021), therefore Listed Activities in this regard may not be triggered, but this is not an absolute certainty, so the associated Listed Activities have been applied for and assessed as per the precautionary principal;
- Although the proposed development touches on a number of “waterbodies”, the large majority of these are stormwater/ attenuation facilities which have resulted from run-off from Govan Mbeki Road and they have no ecological value (Belcher *et al*, 2021). The only area of significance is that infilling in approximately 750m<sup>2</sup> of the wetland mapped along the fringe of ESNR would be required as well as works within the Lotus Canal for the pedestrian bridges and retaining wall (refer to **Error! Reference source not found.** for a summary of the extent to which the Lotus Canal and wetlands would be disturbed for each alternative). Note that the wetland has been mapped to extend beyond the cadastral boundary of the reserve and into the road reserve. This is the area that would be encroached upon as part of the proposed development and not the ESNR currently within the cadastral boundaries. The ESNR is protected in perpetuity in terms of the National Environmental Management: Biodiversity Act (No. 10 of 2004); and
- In certain areas, the proposed expansion/ road widening would occur beyond the road reserve and greater than 4m into Public Open Space.

The Department of Water and Sanitation has also previously confirmed that the proposed development could be authorised under a General Authorisation for Section 21 (c) and (i) of the **National Water Act** (No. 36 of 1998) (NWA).

#### **ALTERNATIVES:**

Along with the no-go alternative, three road geometry alternatives have been assessed, namely:

- 1) Alternative 1- Unconstrained alternative (15m expansion from road shoulder on either side);
- 2) Alternative 2- Proposed Design 1 (a much narrower design in response to a high-level baseline study conducted by specialists, which does not allow room for optimal road design); and
- 3) Alternative 3- Proposed Design 2 (this is the **preferred** expansion width designed in response to detailed specialist assessments and mapping of sensitivities on the ground which provides as much room as possible for optimal road design, i.e., up to 15m either side the road shoulder with narrower areas in response to environmental sensitivities).

Site alternatives have not been assessed as Govan Mbeki Road already exists as part of a major transport network and the proposed stretch forms part of an extended future MyCiTi Network as per the Municipal Spatial Development Framework (2018) (MSDF). 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 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 for a bus to drive on and people and bicycles to move safely on. Similarly, operational alternatives have also not been assessed because an IRT road network provides for little flexibility in terms of operational aspects as there are very simple and specific requirements (i.e., an efficient public transport facilitation service).

Three design/ road geometry alternatives have been assessed in order to apply for a maximum design envelope and Alternative 3 is preferred over Alternatives 1 and 2 because it provides a compromise in terms of maximising on design potential, while avoiding any sensitive environmental features. It is also a third iteration of the alternative which has been revised twice to response to comment from a ward councillor and to further void encroaching into wetland/ stormwater depression areas. It is important to be able to provide the largest cross-section possible from a design perspective as this would enable the delivery of the best possible product and service to the community in the form of a useful and valuable network for public transport. The road needs to accommodate normal vehicular traffic as well as the BRT buses such that traffic flow remains smooth and that those buses, ideally, have their own lanes. From an environmental perspective, there are some sensitive areas along the route which should be avoided, with the most notable being the ESNR. There is also one other area which is earmarked as a buffer zone which supports the CBAs and associated biodiversity targets, therefore the road geometry for the preferred alternative avoids these areas and have no other constraints to development along the stretch. Alternative 3 is also the preferred development alternative from a freshwater (Belcher *et al*, 2021) and botanical (Altern, 2021) perspective.

Alternative 1 would enable maximum design but would result in the unacceptable destruction of a portion of the ESNR, which is why it is not preferred. Alternative 2 would largely avoid environmentally sensitive areas, however, would not provide sufficient scope for design and would therefore not deliver an ideal service. Hence, Alternative 3, which is a preferred compromise of the two which also has no unacceptable environmental impact, and which responds to comments made by I&APs.

Other design alternatives were considered for the stormwater management plan and the development over/near the Lotus Canal, but these were scoped out prior to formal assessment as they were not considered appropriate for the site.

The no-go alternative has also been assessed as the *status quo* of the route would continue as is, namely a major road with transformed edges, and, although impacts would also be anticipated to be low (as with the preferred alternative), there would be significant loss (i.e. opportunity cost) of positive impacts for the local community in terms of both infrastructure provision (given the state of certain portions of Govan Mbeki Road and lack of safe NMT and pedestrian facilities, as well as landscaping) as well as potential for socio-economic improvement associated with improvements to accessibility and economic opportunities that this would bring with it. The implementation of the no-go alternative is, therefore, not preferred.

## **BASELINE ENVIRONMENT**

### **Geology/Soils:**

Two geological types underlie the Cape Flats (and the proposed route), namely Cape granitic outcrops and Sandveld Group Sands.

### **Topography:**

The site is flat, with some areas adjacent to the road verge being slightly sloped.

### **Climate:**

The site falls within the Cape Flats and, as is the case with the south-western Cape, the area has a Mediterranean climate characterized by winter rainfall.

World Weather Online provides a summary of the climatic conditions. Average high temperatures are highest from December to March and lowest from June to August. Average daily maximum temperatures show average midday temperatures ranging from 15.7° in July to 26° in February. Rainfall is highest during the winter months from June to August with average figures with the highest average rainfall in June at 155mm. The rainy season picks up from April and continued through to August, while there is little rain from September to March where the lowest rainfall is in February at 16mm.

The prevailing wind patterns in the area reflect those of the Cape Peninsula, namely south-easterly winds during the summer months and north-westerly winds during the winter months. The mean wind speeds range over the site from 10.46 to 22.36km/hr.

#### **Botany:**

Three areas of sensitivity have been identified along the proposed route. One is no longer considered sensitive as it has been declassified, the other is the highly sensitive and Protected ESNR and the third is marked as Other Natural Area (ONA). The vegetation types affected include:

- Cape Flats Dune Strandveld;
- Cape Flats Sand Fynbos; and
- Cape Lowlands Freshwater Wetlands.

The portions of the abovementioned vegetation types within the proposed boundaries of the route have been found to be entirely transformed or degraded with little ecological value.

#### **Freshwater:**

A canalised section of the Lotus River runs parallel to a certain section of the proposed route. Furthermore, works are proposed to the Lotus Canal at the Duinefontein intersection.

Five wetlands have been identified nearby the proposed route. The wetland types for each of the five can be summarised as follows:

- Permanently to seasonally inundated reed dominated depression wetlands (i.e., Wetlands 3 and 5);
- Seasonally inundated wetlands that comprise of a mix of grass and sedges with some reeds (Wetland 1 and 2); and
- The ESNR which contains permanently inundated as well as seasonally inundated areas (Wetland 4). The ESNR is also a protected area.

All but the ESNR are considered to be highly modified and of low ecological significance. The ESNR is sensitive, however the approx. 750m<sup>2</sup> area which would be encroached upon (and is beyond the cadastral boundary, and on the road verge, of the ESNR) is more transformed. Furthermore, the preferred alternative for the proposed route would not encroach on Wetland 1, 2, Wetland 3 and Wetland 5 at all.

#### **Heritage/cultural/archaeological aspects:**

It has been found that there are no heritage sensitivities would be encroached upon by the proposed development. Heritage Western Cape has also confirmed that no further assessment is necessary. Further engagement with local communities has indicated additional heritage resources in the area and none of these would be impacted by the proposed development either.

### **SUMMARY OF IMPACTS**

The baseline assessments conducted by the freshwater and botanical specialists found no highly sensitive areas or development constraints for the preferred alternative. Alternative 1 was found to encroach into a highly sensitive area in terms of biodiversity and freshwater resources (i.e., ESNR), therefore this alternative is not favoured by the Applicant or the specialists (Altern, 2021 and Belcher et al, 2021 respectively).

The botanical impacts (for Alternatives 2 and 3) were all found to be low (-) and are associated with loss of low sensitivity transformed and degraded replaced Cape Flats Sand Fynbos, transitioned Cape Lowlands Freshwater Wetlands, and replaced Cape Flats Dune Strandveld as well as an area

mapped as ONV for the City of Cape Town BioNet, in addition to anticipated changes to roadside conditions and associated species as a result of increased water run-off. The only exception to this would be the medium (-) impact anticipated at the ESNR due to the edge effect on the ESNR border edge. It has been concluded that no biodiversity offset would be required. The impacts (for Alternatives 2 and 3) of the proposed expansion and the associated footprint thereof on freshwater resources were all found to be very low (-) and are associated with limited disturbance to or loss of freshwater related habitats, modification of flow, and reduction of water quality. In terms of the proposed changes to the Lotus Canal, impacts are anticipated to be very low (-). A Risk Assessment has also concluded that there would be Low risk with the implementation of the preferred alternative. No heritage impacts were identified and HWC has confirmed that no further assessment is necessary. No adverse impacts on stormwater capacity were identified and the stormwater study and overall management approach has been devised in accordance with the requirements of the biophysical specialists as well as a as the City of Cape Town Roads and Stormwater Branch. The proposed treatment of stormwater run-off relative to ESNR is also aligned with the general requirements of number of City of Cape Town's branches, namely Catchment and Stormwater Management, Biodiversity and Environmental Management (noting that the design has been re-iterated following meetings with these branches). The proposal also presents low resource requirements as no services (e.g., water, electricity, solid waste removal, and effluent management) would be required during the operational phase.

Generally, the construction phase impacts, with mitigation implementation, are anticipated to be Low (-) to Very Low (-) for the preferred alternative and the operational phase impacts, also with mitigation implementation, are anticipated to be the same (for the preferred alternative), with the exception of the Medium (-) impact anticipated for loss of transitioned Cape Lowlands Freshwater Wetlands (ESNR) as a result of the replacement of road reserve vegetation buffer and subsequent edge effect on the wetland park border edge. This particular impact would be Medium (-) for Alternative 2 as well, but High (-) for Alternative 1, and is a key consideration in the selection of the preferred road geometry alternative. Note that the impacts of the development within the Lotus Canal would be Very Low (-) from an environmental perspective.

Generally, the construction phase impacts, with mitigation implementation, are anticipated to be Low (-) to Very Low (-) for the preferred alternative and the operational phase impacts, also with mitigation implementation, are anticipated to be the same (for the preferred alternative), with the exception of the Medium (-) impact anticipated for loss of Cape Lowlands Freshwater Wetlands (ESNR) as a result of the replacement of road reserve vegetation buffer and subsequent edge effect on the wetland park border edge. This particular impact would be Medium (-) for Alternative 2 as well, but High (-) for Alternative 1, and is a key consideration in the selection of the preferred road geometry alternative. Note that the impacts of the Canal works are considered Very Low(-) from an environmental perspective.

The impacts are summarised in the tables overleaf, which are duplications of the impact summary tables included in the Basic Assessment Report.

PLANNING, DESIGN AND CONSTRUCTION PHASE IMPACTS:								
ALTERNATIVES	Road Geometry Alternative 1 & Canal Works		Road Geometry Alternative 2 & Canal Works		Road Geometry Alternative 3 (preferred) & Canal Works		No-go Alternative	
Impact:	Significance before mitigation:	Significance after mitigation:	Significance before mitigation:	Significance after mitigation:	Significance before mitigation:	Significance after mitigation:	Significance before mitigation:	Significance after mitigation:
<b>ALTERING THE SURFACE DRAINAGE REGIME:</b> Additional hard surfaces in some portions of the route would provide a marginal increase in hard areas for stormwater run-off	Medium (-)	Neutral	Medium (-)	Neutral	Medium (-)	Neutral	None	Not Applicable
<b>BOTANICAL ASPECTS:</b> Loss of Cape Flats Sand Fynbos (Former CBA2 Zone) Degraded and Transformed	Low (-)	Low (-)	Low (-)	Low (-)	Low (-)	Low (-)	No impact	Not Applicable
<b>BOTANICAL ASPECTS:</b> Loss of Cape Lowlands Freshwater Wetlands (ESNR) Degraded and Transformed	High (-)	High (-)	Low (-)	Low (-)	Low (-)	Low (-)	No impact	Not Applicable
<b>BOTANICAL ASPECTS:</b> Loss of Cape Flats Dune Strandveld (Other Natural Vegetation) Degraded and Transformed	Low (-)	Low (-)	Low (-)	Low (-)	Low (-)	Low (-)	No impact	Not Applicable
<b>FRESHWATER ASPECTS:</b> Limited disturbance to/loss of freshwater related habitats at the road- Wetlands	Medium to Low (-)	Medium to Low (-)	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)
<b>FRESHWATER ASPECTS:</b> Impairment of downstream <b>water quality impacts</b> as a result of runoff from road and the construction activities	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)
<b>FRESHWATER ASPECTS:</b> Modification of flow during construction activities	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)
<b>FRESHWATER ASPECTS:</b> Limited loss/disturbance of freshwater related habitats at the road-Lotus River Canal	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)
<b>SOCIO-ECONOMIC ASPECTS:</b> Creation of employment opportunities as a result of development and construction on the route. Additional indirect economic impacts (stimulus) will also be experienced.	Medium (+)	Not Applicable	Medium (+)	Not Applicable	Medium (+)	Not Applicable	No impact	Not Applicable
<b>VISUAL ASPECTS:</b> Visual impacts associated with construction activities (machinery, vehicle movement, site camp, signage, lighting and temporary services, wind-blown litter, erosion, and exposed surfaces)	Low (-)	Low (-)	Low (-)	Low (-)	Low (-)	Low (-)	No impact	Not Applicable
<b>CULTURAL-HISTORICAL ASPECTS:</b> Damage to cultural or heritage artefacts or landscapes as a result of construction activities.	No impact							
<b>NUISANCE IMPACTS ON SURROUNDING LAND USERS – DUST AND NOISE:</b> 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 (-)	Low (-)	Low (-)	Low (-)	Low (-)	Low (-)	No impact	Not Applicable
<b>USE OF NATURAL RESOURCES:</b> Construction of the development and the associated use of natural resources, such as water, resources for the generation of energy, construction materials etc.	Medium (-)	Low (-)	Medium (-)	Low (-)	Medium (-)	Low (-)	No impact	Not Applicable
<b>TRAFFIC:</b> Disturbance to local traffic conditions (both vehicular and pedestrian) as a result of construction vehicles accessing the sites during the construction activities.	Low (-)	Low (-)	Low (-)	Low (-)	Low (-)	Low (-)	No impact	Not Applicable

OPERATIONAL PHASE IMPACTS:								
ALTERNATIVES	Road Geometry Alternative 1 & Canal Works		Road Geometry Alternative 2 & Canal Works		Road Geometry Alternative 3 & Canal Works (preferred)		No-go Alternative	
Impact:	Significance before mitigation:	Significance after mitigation:	Significance before mitigation:	Significance after mitigation:	Significance before mitigation:	Significance after mitigation:	Significance before mitigation:	Significance after mitigation:
<b>BOTANICAL ASPECTS:</b> Impact on associated floral species assessed as a result of wetter conditions related to increased stormwater run-off	High (-)	Low (-) *Note mitigation is implementation of another alternative	Medium (-)	Low (-)	Medium (-)	Low (-)	No impact	Not Applicable
<b>BOTANICAL ASPECTS:</b> Loss of Cape Lowlands Freshwater Wetlands (ESNR) as a result of the replacement of road reserve vegetation buffer and subsequent edge effect on the wetland park border edge.	High (-)	High (-)	Medium (-)	Medium (-)	Medium (-)	Medium (-)	No impact	Not Applicable
<b>FRESHWATER ASPECTS:</b> Modification of flow during operational activities	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)	Very Low (-)
<b>FRESHWATER ASPECTS:</b> Limited <i>disturbance of freshwater related habitats</i> at the road	Low (-)	Very Low (-)	Low (-)	Very Low (-)	Low (-)	Very Low (-)	Very Low (-)	Very Low (-)
<b>VISUAL ASPECTS:</b> Overall improvement to the appearance of the relevant portion of Govan Mbeki	Medium (+)	Not Applicable	Medium (+)	Not Applicable	Medium (+)	Not Applicable	No impact	Not Applicable
<b>REDUCTION IN EMISSION OF GREENHOUSE GASES:</b> Operation of the proposed route (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.	High (+)	Not Applicable	High (+)	Not Applicable	High (+)	Not Applicable	No impact	Not Applicable
<b>SOCIO-ECONOMIC ASPECTS: Improved Accessibility:</b> Provision of improved accessibility for previously disadvantaged communities with respect to employment, economic centres and places of education and recreation.	High (+)	Not Applicable	High (+)	Not Applicable	High (+)	Not Applicable	Medium (+)	Not Applicable
<b>PUBLIC SAFETY (Non-Motorised Transport-NMT):</b> Improvements to safety for all those accessing the area via NMT.	High (+)	Not Applicable	High (+)	Not Applicable	High (+)	Not Applicable	No impact	Not Applicable
<b>TRAFFIC:</b> Improvements to traffic conditions in the area	High (+)	Not Applicable	High (+)	Not Applicable	High (+)	Not Applicable	No impact	Not Applicable



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

## **MITIGATION AND RESPONSE**

It is believed that the impacts that have been identified have been adequately addressed through changes in the proposed footprint (e.g., devising alternatives which avoid sensitive areas), 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.

None of the design alternatives under consideration would fall within any areas of heritage sensitivity (O'Donoghue, 2018) and so there are no further constraints to development that must be considered in that regard. There are other areas that have also been identified as culturally significant by local communities and a Ward Councillor, and the proposed development would not encroach into these either.

Specialist assessment in terms of terrestrial and aquatic biodiversity align on the finding that ESNR, located adjacent to the preferred alternative (and alternative 2), is a highly sensitive area and development within that Protected Area must be avoided. Hence the preference for Alternative 3, which would not encroach into the ESNR, but would only be located within the transformed wetland area adjacent to it.

With regard to wetlands, the preferred alternative (i.e., Alternative 3) has been designed to avoid as much of the wetland within the route as possible, and where it does encroach into the wetland adjacent to the ESNR, it would be in a heavily degraded area where the impact on the wetland would be low (Belcher et al, 2021). Further design considerations for protection of the wetlands are evidence in the stormwater management plan, and slope of the roadway, which would direct run-off from the road away from ESNR.

The presence of the Lotus Canal has informed the design of the proposed roadway in terms of providing for the additional design requirements for a retaining wall and balustrade as described in the project description. The design would not have a significant effect on the water flow of the canal and the wall would stop the existing flooding occurring along Govan Mbeki Road (GIBB, 2021). New pedestrian bridges would also be provided as part of these works in order to provide the communities nearby with continued access to Govan Mbeki Road. The design also considers existing flood conditions of the Lotus Canal. The stormwater management system has also been designed to respond to the current conditions of the Lotus Canal in terms of connecting into the existing minor drainage network where possible and that with the new minor drainage system, the system would be able to convey greater than the 1:10-year period and the road would convey up to- and including the 1:50- year return period (GIBB, 2021). Overall, this would provide an improvement on current flooding conditions.

The preferred alternative is intentionally comparatively narrower near/in areas which are indicated in the City of Cape Town Biodiversity network and the portions of the various vegetation types within the proposed boundaries of the route have been found to be entirely transformed or degraded with little ecological value (Altern, 2021).

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. It is also appropriate for the various widths/ cross-sections of the proposed expansion, given that there are various strategies to be applied depending on the typology of the stretch in question.

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).

## **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 and botanical impact assessment have considered the sustainability of the ecological aspects adjacent to the route and impacts have been found to be low, with mitigation and so the proposed expansion can occur sustainably from an environmental perspective. 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 to 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 would be rectified while ensuring that society as a whole can still benefit from the improved connectivity and access provided by the proposed road widening for generations to come.

## **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).

The pre-application PPP includes the following activities (noting that no alternative sites have been considered in impact assessment process as the relevant section of road is a major road linking key neighbourhoods and is appropriate for the proposed development):

- 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).
- One-on-one meeting with CapeNature on 13 February 2018;
- Focus Group Meeting (FGM) with representatives from the Environment and Heritage Management, Catchment Planning: Region 2, Biodiversity Management, Asset Management Roads, and Catchment Stormwater and River Management branches of the City of Cape Town on 14 February 2018;
- FGM with representatives from the Environment and Heritage Management as well as the Edith Stephens Nature Reserve (ESNR) branches of the City of Cape Town on 5 April 2018 to discuss the need for a biodiversity offset;
- FGM with organisations which represent local culture and heritage on 11 July 2018;
- FGM with local Councillors, Sub-Council 11, on 16 February 2018;
- FGM with local Councillors, Sub-Council 14, on 16 February 2018;
- FGM with local Councillors with Wards located in the site area on 18 October 2018 to provide feedback on previous FGMs as well as the upcoming advertisement of the proposed development and associated Basic Assessment process. Note that many municipal representatives were invited to this meeting and while eight officials initially confirmed their attendance, two attended on the day. Furthermore, at the request of one of the Councillors (made telephonically prior to the meeting), Chand attempted

to move the meeting venue to a Council office (i.e., the Plumstead Municipal Office, given that eight attendees had already been confirmed in the vicinity), however the facilities manager confirmed, on 17 October 2018, that the boardroom was unavailable for the date and time required for this meeting;

- A pre-application meeting with the Department of Water and Sanitation (DWS) was held on 20 April 2018 in order to confirm the Department's requirements with regard to the need for a Water Use License Application (WULA) (note that DWS confirmed that a General Authorisation would apply so there is no need to consider the One Environment System as there will **not** be a WULA associated with this Basic Assessment process and associated proposed development) and a second pre-application meeting was held with a new DWS case officer on 28 April 2021; and
- FGM with local Councillors at Sub-Council meetings for sub-councils 23 and 14 on 20 May 2019 and sub-councils 11 and 13 on 22 May 2019. The updated proposal in response to previous comments as well as the imminent public participation process was presented to the Councillors.

The post-application PPP undertaken for the current public review of this post-application Draft BAR includes the following:

- Engagement with ward councillors to notify them of the upcoming public comment period.
- A 35-day public comment period for the post-application Draft BAR has been provided.
- Knock and Drop delivery of a notification leaflet to local businesses in the informal settlements alongside the affected stretch (carried out by locals from the community).
- Placement of information posters throughout the affected community notifying them of the proposed development and Basic Assessment process (carried out by locals from the community).
- Notification of the availability of the post-application draft BAR has been emailed to the preliminary I&AP database and post was sent to those who do not have email addresses.
- A knock-and drop exercise with the above-mentioned notification letter was conducted to businesses and formal institutions adjacent to the road.
- Note that in order to provide access to commenting on the report to people who may not have access to data, emails, post or fax, Chand has encouraged I&APs to make telephonic contact and submit their comments to Chand in that manner, for Chand to record (in writing) as part of the Basic Assessment process.
- The post-application draft BAR has been made available for download from Chand's website for the duration of the comment period.
- An executive summary for separate download (for those I&APs who have limited access to data) is also available on Chand's website for the duration of the comment period.
- Site notices have been placed at the start, middle and end of the route. They are in English and isiXhosa and contain the information as prescribed by the EIA Regulations, 2014, as amended and PPP guidelines (i.e., they will be of the standard format). There are six in total.
- Adverts have been placed in three local newspapers, one in English and one in isiXhosa and these also contain the information as prescribed by the EIA Regulations, 2014, as amended and PPP guidelines (i.e., they will be of the standard format).
- 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 will be included in Appendix F of the final BAR submitted to DEA&DP.

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 Chand'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 through the targeted public participation activities carried out to date include the following:

- The importance of ESNR (e.g., it houses the cacosternum platys and Western Leopard Toad);
- The need to protect ESNR and ensure that stormwater does not flow into that area;
- The design approach of the stormwater management measures to be implemented at the interface with ESNR;
- The removal of the pavement trees should be approved by the City of Cape Town Recreation and Parks branch;
- Biodiversity Offsets (noting that, through thorough engagement, it has been deemed acceptable that no biodiversity offset would be required);
- Wetland Offsets (noting that specialist assessment has confirmed that this will not be required, but is subject to comment from DWS);
- Whether a fence would be constructed adjacent to the ESNR and who would be responsible for it;
- The extent to which the edge effect on the ESNR has been considered and would be mitigated, particularly as there are many threatened species located close to the periphery of the ESNR;
- Confirmation from the City of Cape Town Biodiversity branch that no faunal assessment would be warranted;
- The importance of local cultural and heritage beyond that which has been identified by Heritage Western Cape and how these would be affected by the proposal, and including the following:
  - Lotus Park;
  - Neighbourhood Centre;
  - Thankiso Hall (in NY1);
  - Town Hall (in Gugulethu);
  - Sport Complex (in Section 2, Gugulethu);
  - Nyanga Arts Centre;
  - Amandla;
  - Methodist Church (in Gugulethu); and
  - The initiation site at the north-west corner of the Govan Mbeki Road and Duinefontein Road intersection.
- Request for full Scoping and EIA process, rather than a Basic Assessment (from a local Ward Councillor)
- The request to provide the local community with information on the greater IRT project;
- Suggestion to enhance the Lotus Canal and make it a recreational facility and more aesthetically appealing;
- Requirement for restoration of community spaces;
- Requirement for benefits to accrue to the local community;
- The suggestion to employ local community neighbourhood watches for security on the proposal, if required;
- The Basic Assessment process should aim to achieve a balance between the natural, social, and built environment and that the needs and desires of the affected communities;

- Comment that Golden Arrow Bus Services are already in place;
- The need to involve the local Ward Councillors in the public engagement component of the Basic Assessment process;
- The request for additional public engagement activities (e.g., workshops, public meetings, additional presentations at the Sub-council Activity Day/sub-council meeting);
- Ensure updated Ward boundary information is used;
- Make use of local representatives from the community in the public engagement component of the Basic Assessment process; and
- Request to realign the proposal toward the end of the route to avoid the housing development currently under construction as well as the buildings to the south of the road in that same vicinity.

Engagement with local Councillors has indicated that comments on issues beyond the scope of the proposed development may be anticipated. Comments may include queries regarding the delivery of the greater IRT network as well as other projects which may be initiated within local communities. If such issues are raised in the public participation process of this Basic Assessment process, they will be directed to the relevant contact in the City of Cape Town.

In terms of issues raised specifically by State Departments, note the following:

- The Site Manager of the ESNR and a representative from City of Cape Town Biodiversity should be engaged during the compilation of final Stormwater Management Plan and associated detail design of sections of the route adjacent to ESNR (this is to include discussion on the construction and maintenance of a fence).
- The removal of the pavement trees should be approved by the City of Cape Town Recreation and Parks branch.
- While wetland offsets were initially discussed, it should be noted that the proposed geometry for the preferred alternative (i.e., Alternative 3) has been realigned and further narrowed to avoid wetlands. The impact has been assessed and confirmed to be low, and no offsets are considered necessary (Belcher *et al*, 2021). Note, however, that the DWS has been requested to provide clarity on, or a response to this, as part of the registration for a General Authorisation and the specific feedback, at the time of writing, remains awaited.
- No biodiversity offset would be required.
- The final Stormwater Management Plan (refer to Appendix G(d) for the indicative stormwater management plan) should approved by the City of Cape Town and be implemented throughout operational phase of the development.

The above issues raised have been addressed in the Basic Assessment Report through a number of ways such as amendments to the limits of the preferred development alternative footprint, updates to the specialist reports to acknowledge, consider and expand on certain additional information, 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 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 route in terms of size, spatial planning, and environmental requirements related to biophysical



sensitivities (and avoidance thereof) within the preferred alternative for the proposed route;

- The need and desirability of the proposal with regard to the establishment of an efficient and safe public transport system as well as increased connectivity and economic access for previously disadvantaged communities;
- The positive impact on the local community in terms of job creation as well as improvements to public transport and economic access; and
- The improvements to local NMT and the road network.

In addition, the following aims of the proposal as well as the greater network with which it is associated have also been considered:

- 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 impact assessments conducted by the various specialists found no sensitivities or development constraints on the site (of the preferred alternative) other than the ESNR, which lies adjacent to the limits of the preferred alternative development footprint.

It is believed that the impacts that have been identified have been adequately addressed through the footprint for the preferred alternative as well as the design on the works proposed at the Lotus Canal or will be mitigated to acceptable levels through the final design (e.g., appropriate management of stormwater) and/or the strict implementation of the EMPr for each site. 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 public participation process currently underway would also add value to the process as well as further transparency.

Alternatives have been assessed in the form of the preferred development alternative, two road geometry alternatives and the no-go or no-development alternative. In addition, alternatives within preferred development alternative have also been considered in terms of stormwater discharge point/ routing, as well as the best practicable design for the Lotus Canal and pedestrian bridges. The preferred alternative has been selected as a result of the positive impacts as well as the lack of and/r limited negative impacts and is also the preferred development alternative from an ecological perspective (Altern, 2021 and Belcher et al, 2021). In general, the impact of the proposed development is positive, while the impact of the no-go alternative would largely be zero, neutral or low negative (in the case of botanical impacts specifically). Furthermore, any positive impacts associated with the proposed development would be foregone should the no-go alternative be selected.

Overall, the long-term impacts of (preferred alternatives for) the proposal would be medium to high and would be positive, which outweigh the short-term negative impacts (mostly to be experienced locally and during the construction phase) that would result.

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 of the nearby sensitivities 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 3)/ the preferred expansion footprint should 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 period of this report.