

PROPOSED ARLINGTON MULTIPLE-USE DEVELOPMENT OR ERVEN
3988, 4195 AND 6991 ALONG GLENDORE ROAD IN WALTER,
GQEBERHA, NELSON MANDELA BAY MUNICIPALITY, EASTERN CAPE
DEDEAT REF: ECm1/C/LN2/M/45-2023

SOCIAL IMPACT ASSESSMENT

PREPARED BY:



PREPARED FOR:



PRINCIPAL AGENT AND ARCHITECT:





APPLICANT:



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ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Virus
BID	Background Information Document
BGIS	Biodiversity Geographic Information System
CA	Competent Authority
DEDEAT	Department of Economic Development, Environmental Affairs and Tourism
DM	District Municipality
DSR	Draft Scoping Report
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EIR	Environmental Impact Report
EMP	Environmental Management Plan
EMPr	Environmental Management Programme
FET	Further Education and Training
GDP	Gross Domestic Product
GN	Government Notice
Ha	Hectare(s)
HIV	Human Immunodeficiency Virus
HDSA	Historically Disadvantaged South African
I&AP	Interested and Affected Party
I&APs	Interested and Affected Parties
IDP	Integrated Development Plan
km	Kilometre(s)
LED	Local Economic Development
LM	Local Municipality
m	Meter(s)
NEMA	National Environmental Management Act
NMBM	Nelson Mandela Bay Metropolitan Municipality
NMU	Nelson Mandela University
PACs	Project Affected Communities
RE	Remaining Extent
SDF	Spatial Development Framework
SIA	Social (or Socio-Economic) Impact Assessment
SMME	Small, Medium and Micro Enterprises
StatsSA	Statistics South Africa


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DECLARATION OF INDEPENDENCE

I, **Nande Suka**, declare that:

- I act as the independent Social Impact Assessment Practitioner in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I will comply with the applicable Acts, regulations and all other applicable legislation;
- I will consider, to the extent possible, the matters listed in regulation 8 of the regulations when preparing the application and any report relating to the application;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
- I will keep a register of all interested and affected parties that participated in the social survey process; and
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not all the particulars furnished by me in this form are true and correct; will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
- I realise that a false declaration is an offence and is punishable in terms of section 24F of the NEMA.

SPECIALIST	SIGNATURE	DATE
Nande Suka		21/02/2024

REQUIREMENTS FOR SPECIALIST REPORTS

Requirements for Specialist Reports in terms of the National Environmental Management Act, (Act No. 107 of 1998) Environmental Impact Assessment Regulations (2014, as amended).

Appendix 6 of Regulation GNR 326 of 4 December 2014, as amended (2017)	Reference in report
1. (1) A specialist report prepared in terms of these Regulations must contain-	Appendix B – Page 62
a) details of-	
i. the specialist who prepared the report; and	
ii. the expertise of that specialist to compile a specialist report including a curriculum vitae;	
b) a declaration that the specialist is independent in a form as may be specified by the competent authority;	Page 6
c) an indication of the scope of, and the purpose for which, the report was prepared;	Page 12
(cA) an indication of the quality and age of base data used for the specialist report;	Page 42
(cB) a description of existing impacts on the site, cumulative impacts of the proposed development and levels of acceptable change;	Page 14
d) the date and season of the site investigation and the relevance of the season to the outcome of the assessment;	No physical site investigation was undertaken or is relevant for this assessment.
e) a description of the methodology adopted in preparing the report or carrying out the specialised process inclusive of equipment and modelling used;	Page 13
f) details of an assessment of the specific identified sensitivity of the site related to the proposed activity or activities and its associated structures and infrastructure, inclusive of a site plan identifying site alternative;	Page 9
g) an identification of any areas to be avoided, including buffers;	N/A
h) a map superimposing the activity including the associated structures and infrastructure on the environmental sensitivities of the site including areas to be avoided, including buffers;	N/A
i) a description of any assumptions made and any uncertainties or gaps in knowledge;	Page 41
j) a description of the findings and potential implications of such findings on the impact of the proposed activity, (including identified alternatives on the environment) or activities;	Page 14 and 51
k) any mitigation measures for inclusion in the EMPr;	Page 30
l) any conditions for inclusion in the environmental authorisation;	Page 30
m) any monitoring requirements for inclusion in the EMPr or environmental authorisation;	Page 30
n) a reasoned opinion-	Page 41

1. BACKGROUND AND INTRODUCTION

1.1. Background

This report constitutes the results of a Social (or Socio-Economic) Impact Assessment (SIA) undertaken for the proposed Arlington Multiple-Use development proposed in Walmer, an area within Gqeberha, Eastern Cape. The SIA is one of a suite of specialist studies that have been identified through the DFFE Screening Tool results as necessary to complement the Environmental Impact Assessment (EIA) process for the proposed development.

Imbewu Environmental and Waste Services (Pty) Ltd was appointed by JG Afrika (Pty) Ltd on behalf of Afrostructures (Pty) Ltd, to undertake the SIA in accordance with the requirements of the EIA Regulations (2014, as amended).

1.2. Introduction to the proposed development

The Project Applicant, Afrostructures (Pty) Ltd has identified an opportunity for a multiple-use development in Walmer, Gqeberha (formerly known as Port Elizabeth) within the Nelson Mandela Bay Metropolitan Municipality (NMBM) of the Eastern Cape Province. Adendorff Architects (Pty) Ltd has been assigned as the Principal Agent and Architect for this development while Afrostructures (Pty) Ltd remain the project proponent and applicant.

The study area for the proposed development is located to the west of Walmer in Gqeberha within the NMBM on the former Arlington Racecourse property and comprises three erven spanning a cumulative area of approximately 61.4 Ha. The property is bordered by Glendore Road to the west, Walmer Heights to the north and Milkwood Estate to the southwest. The site is further located approximately 500 m west from the former Walmer Country Club and approximately 8 km from Chief Dawid Stuurman International Airport (former Port Elizabeth Airport). The proposed development site is also located approximately 3km from the Sardinia Bay Nature Reserve towards the southwest and approximately 8km from the Nelson Mandela Bay Metropolitan University Private Nature Reserve towards the southeast. The site is currently accessible via Racecourse Road off Victoria Drive (M18) to the south. Both Glendore Road and Victoria Drive can be accessed from Buffelsfontein Road (M09) in the north.

The proposed development site is not located within an urban area, as confirmed by the Department of Economic Development, Environmental Affairs and Tourism (DEDEAT). According to the Zoning Scheme Register of the NMBM, most of the proposed development footprint is located within an area zoned as Recreational Open Space.

The proposed multiple-use development comprises of 25 clusters as well as an internal road network, on erven 3988, 4195 and 6991, along Glendore Road in Walmer. The consolidated development footprint is estimated at approximately 614 409 m² (61,4 Ha) in extent. Approximately 3 000 residential units are proposed which will be divided amongst nine (9) clusters designated for General Residential Zone 2 and General Residential Zone 4. In addition, 13 clusters designated for both Business Zone 1 and Business Zone 2 are planned, as well as one (1) cluster for Community Purposes and two (2) clusters for Special Purposes Infrastructure (solar power & wastewater treatment).

This development will aim to promote social, economic, and environmental sustainability. The proposed development will be resource efficient through the implementation of resource management initiatives such as the improved water distribution network, rainwater management, digital smart meters, renewable energy generation, sustainable drainage, reduction of water generation and optimisation of waste management.

The development in its entirety will include the following components:

- a) Retail/Business Infrastructure.
- b) Office/Storage Facilities.
- c) Medical Use/Office Facilities.
- d) Special Use High Tech Industrial facility/infrastructure.
- e) Warehouse Facilities.
- f) Community Zone (i.e., child aftercare facilities).
- g) Mixed-residential Housing Units including Social Housing – approximately 3000 units are proposed.
- h) Club House and Sport Facilities.
- i) A Business Incubator / Substation Area.
- j) Parking/Solar Charging Stations.
- k) Special Purposes Infrastructure – solar photovoltaic power park & wastewater treatment plant.
- l) Open spaces.
- m) Installation of internal infrastructure services, such as water, sanitation, irrigation, stormwater, roads, and electricity, to service the proposed infrastructure. See further details below; and
- n) Installation of external infrastructure services, such as stormwater and sanitation connection lines as well as a pedestrian walkway along Racecourse Road and two traffic circles along Glendore Road. An additional road will be constructed between the south-western corner of the site and the northern circle.



Figure 1: Locality Map of the study area proposed for the Arlington mixed-use development.

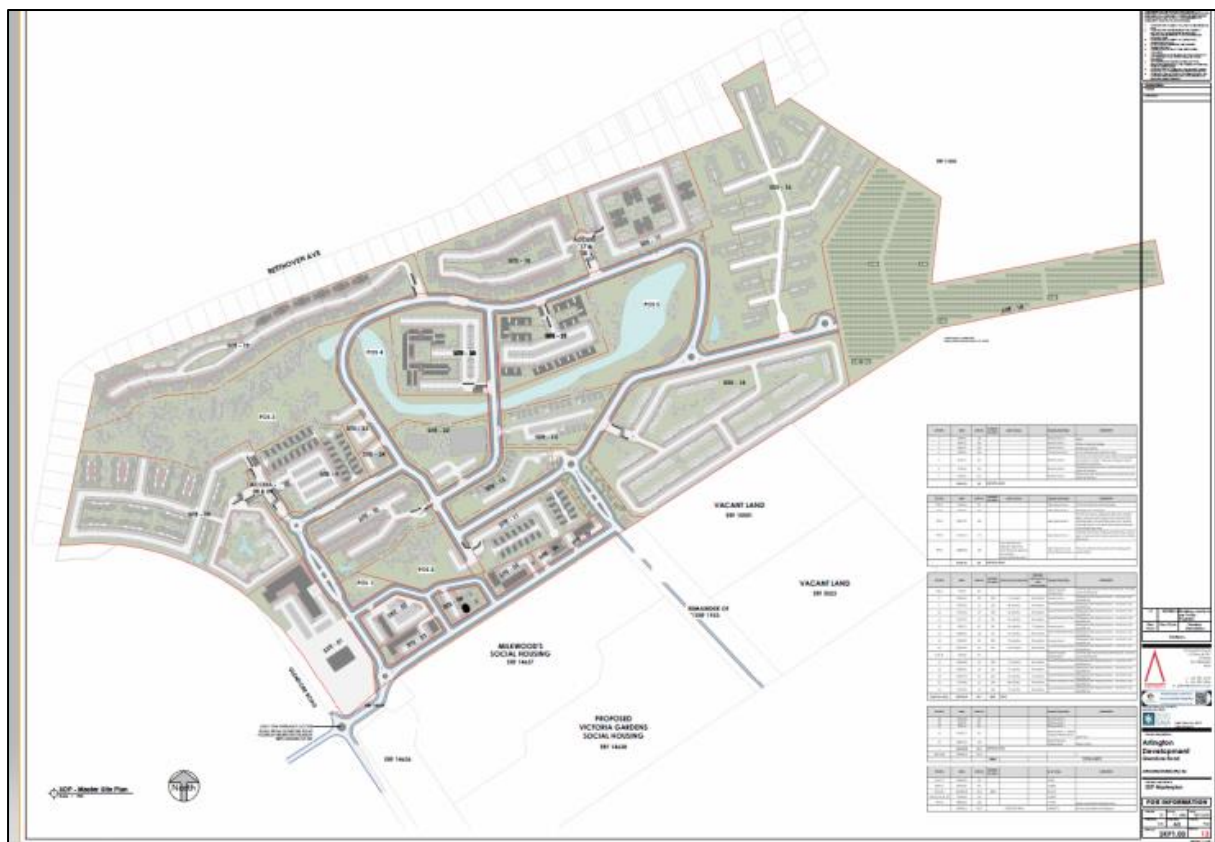


Figure 2: Master Layout Plan of the proposed Arlington mixed-use development.

2. PURPOSE OF SIA

The International Association for Impact Assessment (IAIA) SIA Guidance Document (2015) quotes Vanclay's definition (2002) of a social impact assessment as follows: "... *the process of analysing (predicting, evaluating and reflecting) and managing the intended and unintended consequences on the human environment of planned interventions (policies, programmes, plans and projects) and any social change processes invoked by those interventions so as to bring about a more sustainable and equitable biophysical and human environment.*"

Vanclay (2002) further defines socio-economic impacts as "*the consequences to human populations ... that alters the ways in which people live, work, play, relate to one another, organise to meet their needs and generally live and cope as members of a society*". Social impacts are therefore noticeable changes in various levels of the following aspects:

- People's way of life;
- Culture;
- Community;
- Political systems;
- The Environment;
- Health and well-being;
- Personal and property rights; and
- Fears and aspirations.

The goal of a SIA is to ensure better development outcomes for the people and affected communities; and the objective of a SIA is to minimise harm and maximise benefits to the affected communities. Therefore, the primary purpose of this SIA is to identify and assess the likelihood of the social impacts that may be associated with the proposed Arlington multiple-use development. By assessing the Project Affected Communities (PACs), the SIA sketches the area's social environment and analyses the potential social impacts of the project on the PACs. In so doing, the SIA provides guidelines for limiting or mitigating negative socio-economic impacts and optimising expected benefits.

The SIA process is interactive by nature. It is therefore, imperative to obtain input from landowners, surrounding landowners, stakeholders, community members and other Interested and Affected Parties (I&APs). The SIA process promotes the participation of communities in the environmental decision-making process, and empowers communities to participate in decisions that will affect their livelihoods.

3. LEGISLATIVE FRAMEWORK

There is currently no legislation in South Africa with direct regulatory requirements for the development of SIAs. However, there are certain laws that govern the public participation and stakeholder engagement processes, which inform the SIA process. A brief overview of the relevant legislation is summarised below:

3.1. The Constitution of South Africa (Act 108 of 1996)

Section 24 of The Constitution makes specific reference to human rights, including the right of all humans to an environment that is not harmful to their health and wellbeing. The Constitution also

provides the implementation measures to ensure that the environment is protected for the benefit of both the current and future generations.

3.2. National Environmental Management Act (Act 107 of 1998)

NEMA is a legislative framework that promotes the right to an environment that is not harmful to human health and wellbeing. According to NEMA, the definition of “environment” does not only include the biophysical environment, but it also encompasses the physical, chemical, aesthetic and cultural factors that influence human health and wellbeing. NEMA promotes the integrated approach to sustainable development, through the consideration of social, economic and biophysical factors of a development to ensure that it serves not only the current but future generations as well.

At its core, NEMA serves also as a tool for environmental governance through the facilitation and promotion of stakeholder engagement. NEMA stipulates that one of the general objectives of integrated environmental management is to “ensure adequate and appropriate opportunity for public participation in decisions that may affect the environment”.

3.3. International Guidelines

In the absence of national legislation governing the undertaking of SIAs, there are international guiding principles which have been adopted to standardise the development of SIAs. These guidelines are set out in the International Finance Corporation’s (IFC) Performance Standard 1 (PS 1). The standard provides an integrative approach for the assessment and management of social and environmental impacts, risks and opportunities on projects.

4. APPROACH AND METHODOLOGY

The broad steps followed as the approach and methodology for this SIA, are outlined below:

4.1. Primary data collection

Primary data assists in the understanding of the baseline environment, its social character and the key economic activities of the core or immediate communities. It is therefore, crucial to obtain input from the landowners, surrounding landowners, ward councillors and committee members, community members and other interested and affected parties. A questionnaire was compiled and distributed to the project affected community members and other identified stakeholders and I&APs. The questionnaire’s inquiry is strategically structured in such a way as to monitor the socio-economic features of the project area and to solicit the opinions of people with the aim of identifying the perceived impacts of the development.

4.2. Secondary data collection

Secondary data collection and collation is also known as the desktop literature review. Various secondary data sources were used to obtain information on the social and economic characteristics of the project area. Such data includes maps, graphs, satellite imagery, Census data from and not limited to the following sources:

- Integrated Development Plans (IDP) and Spatial Development Framework (SDF) of the Metro;
- Census 2011, 2022 and Community Survey 2016 data; and

- Other municipal and specialist reports.

4.3. EIA Public Participation Process

Stakeholders and I&APs were identified and registered as part of the EIA process. The EIA process requires the undertaking of a Public Participation Process (PPP), where stakeholders and I&APs are notified of the proposed development and given an opportunity to participate on the process, and to comment on the findings of the EIA reports. The comments received during the EIA process have also been considered in this SIA, as an extension of the primary data source.

5. BASELINE SOCIO-ECONOMIC PROFILE

Based on the information obtained through the primary and secondary data collection, a baseline socio-economic profile of the project area is compiled. The main themes and variables reflected in the socio-economic profile include the following:

- Demographic profile – population dynamics such as size, changes, composition, immigration and emigration patterns, etc.
- Geographical profile – land use patterns.
- Institutional profile – access to basic services, service delivery efficiency, community infrastructure, etc.
- Economic profile – economic activity, industrial/commercial activity in the project area, employment equity, etc.
- Socio-cultural profile – social and cultural dynamics, sense of place, safety and security, etc.

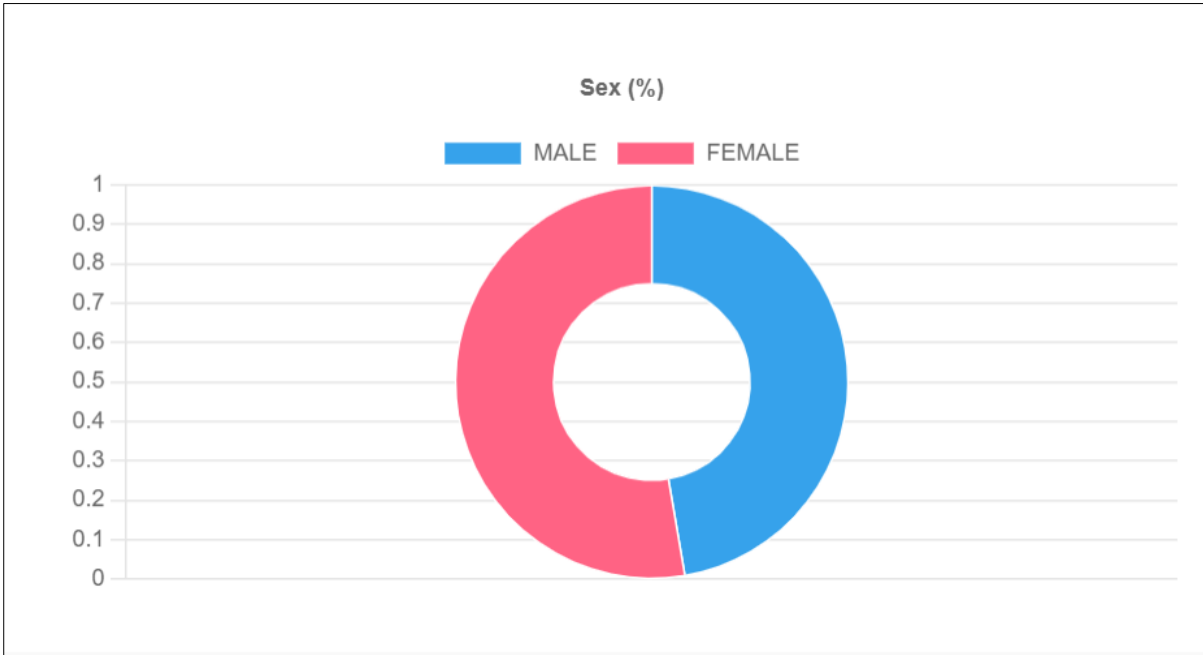
5.1. Demographic profile

5.1.1. Population and household dynamics

The study area can be defined at three levels; the regional, local and site-specific level. At the regional level, the project area is located within the Nelson Mandela Metropolitan Municipality (NMBM). Even though the project area is geographically located outside the demarcation of the Sarah Baartman District Municipality (SBDM), it is within very close proximity to areas of the SBDM as it is bordered by its boundaries. The NMBM is located in the Eastern Cape Province of South Africa, it is the larger of the two Category A metropolitan municipalities located on the Southern Coast of the Eastern Cape. NMBM comprises of the main town, Gqeberha, the two smaller towns of Uitenhage and Despatch, and the surrounding agricultural areas. At the local level, the study area is located within the area of Walmer in Gqeberha. At site-specific level, the study area is located within Ward 1 and 4 of the NMBM.

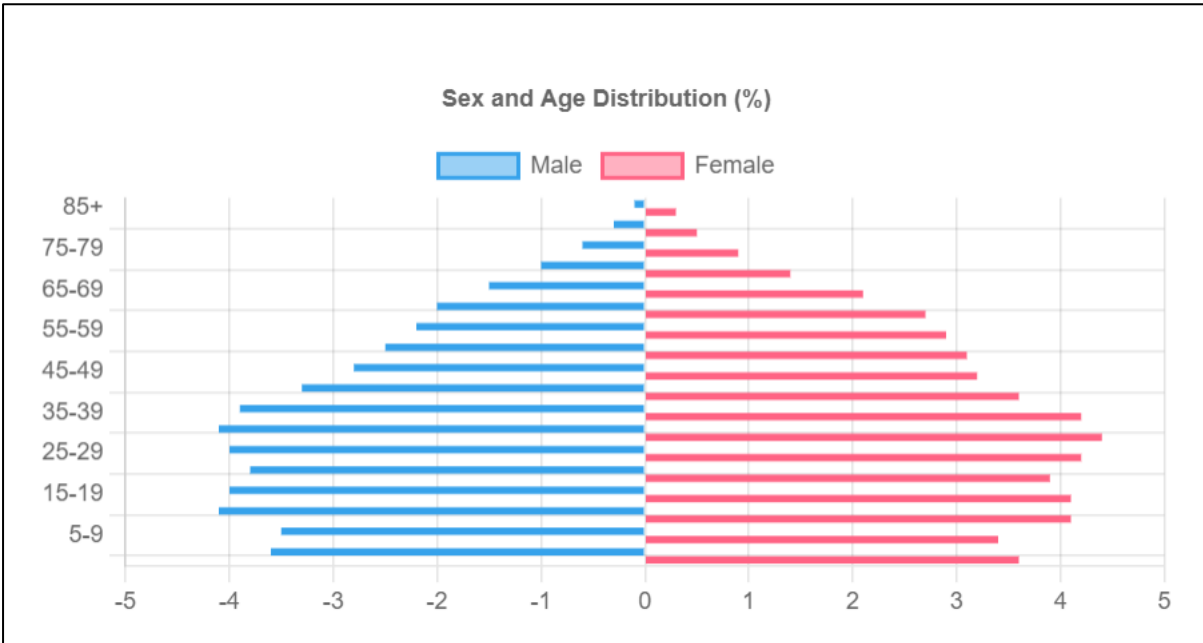
The Census 2022 revealed a total population of 1 190 496 in NMBM, spatially extending over a 1957.6 km² municipal area. NMBM is relatively low density with an average density of 20 residential units per hectare of developed land (NMBD IDP, 4th edition). The current population is indicative of a low population growth rate when compared to Census 2011 population of 1 152 115, and a decline when compared to Community Survey 2016 data which estimated a population of 1 263 051. This also demonstrates a decline in the population growth rate, from 2.09% in 2016 to 0.32% in 2022.

In terms of gender distribution, the NMBM population is fairly balanced, with the female population (52.7%) being only 2.7% more than the male population (47.2%). The distribution is depicted by the diagram below, based on the Census 2022 data.



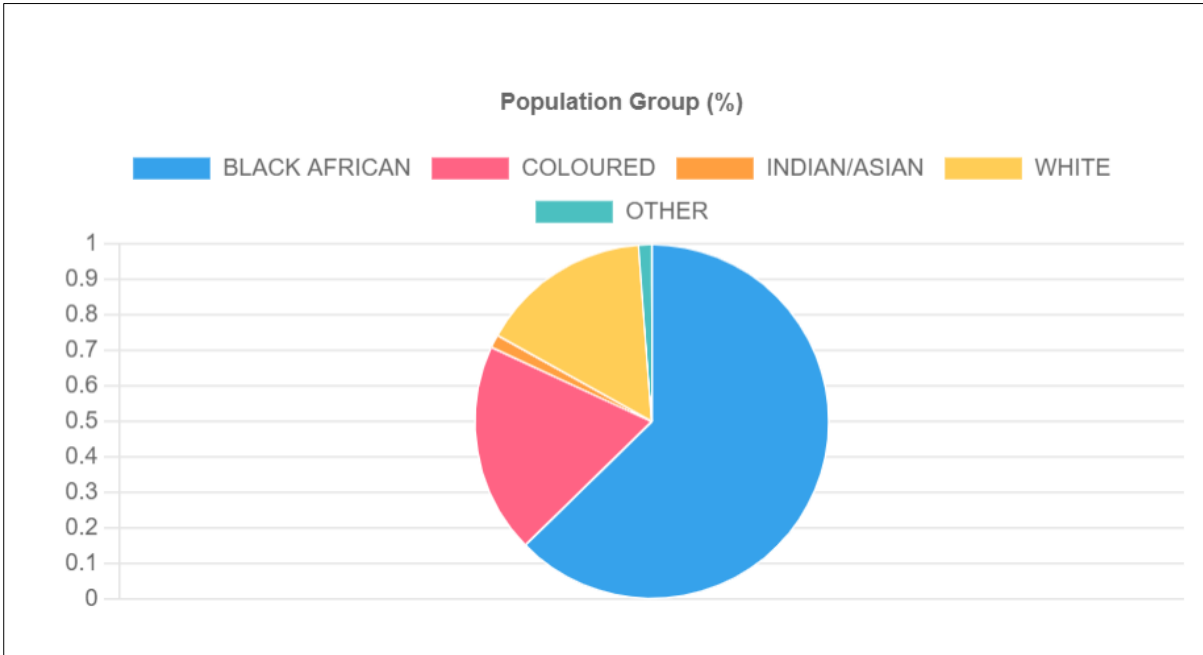
Source: Stats SA Census 2022 data

Majority (68.5%) of the population is between 15 and 64 years of age, which indicates a significant youth and working age populace.



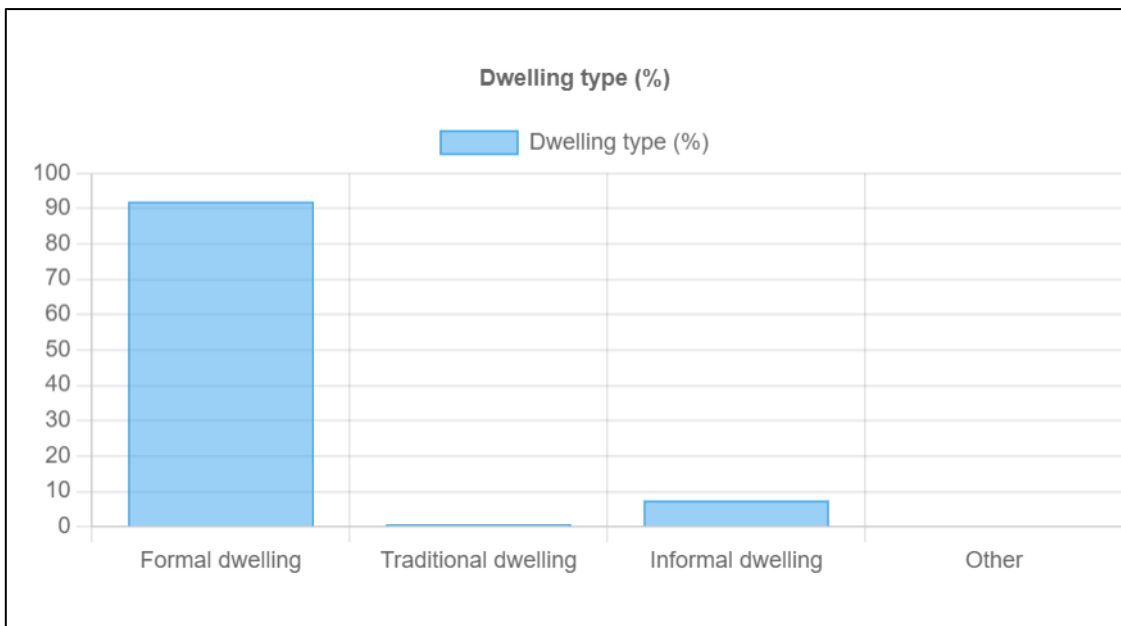
Source: Stats SA Census 2022 data

A greater part of the NMBM population is categorised as Black African (60.1%), followed by the Coloured group (23.6%) and the White group (14.4%). Approximately 57% of local residents are mother-tongue isiXhosa speakers, followed by Afrikaans (approximately 29%) and English (approximately 12%) (NMBM IDP, 4th Edition).



Source: Stats SA Census 2022 data

The Census 2022 recorded 307 931 households in NMBM, with an average household size of 3.9 persons per household. Majority of the household dwellings are regarded as formal (92%) with the rest being regarded as informal dwellings and an insignificant portion of traditional dwellings.



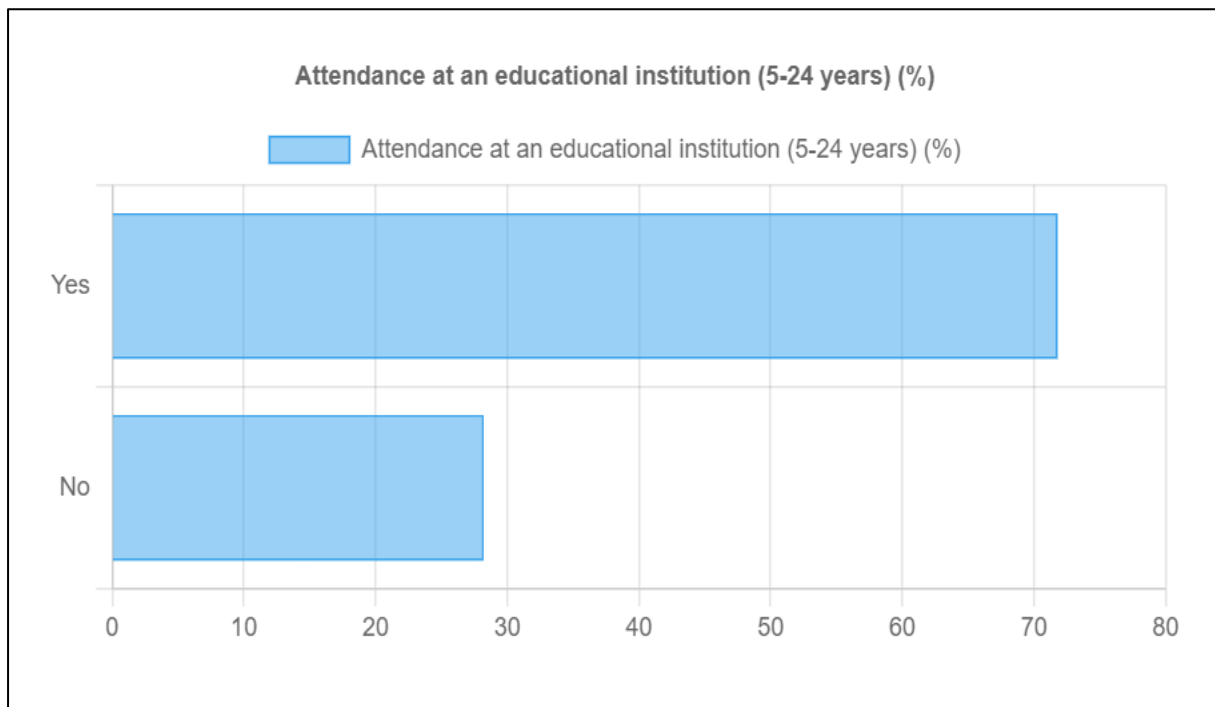
Source: Stats SA Census 2022 data

The following statistical summary for NMBM is extracted from the NMBM IDP 2022/23 -2026/27:

Population	1 263 861 (StatsSA GHS 2021)
Households (total)	366 341 (StatsSA GHS 2021)
Households (formal)	338 167 (StatsSA GHS 2021)
Households (informal)	28 174 (Source: StatsSA GHS 2021)
Number of informal settlements	156
Area covered	1 959 km ²
Unemployment rate	33,6% (STATS SA Quarterly Labour Force Survey Q3/2022)
Capital Budget – 2022/23	R15,40 billion
Operating Budget – 2022/23	R1,83 billion

Source: NMBM IDP 2022/23 to 2026/27

A significant portion of 71.8% of the school attending population (5-24 years) is registered with an education institution, while a 28.2% of the group is not registered with or attending at an educational institution. Please refer to the distribution of school attendance diagram below.



Source: Stats SA Census 2022 data

5.2. Geographical profile

In terms of the NMBM SDF (2015), Gqeberha is regarded as one of the major industrial areas in South Africa, primarily the manufacturing hub of the Eastern Cape province. The region has well developed road and rail infrastructure which allow for easy access (NMBM SDF, 2015).

The NMBM area has dominant topographical features; including the Swartkops River Valley, flat marine terrace, Gqeberha’s north-west to south-east oriented scarp and undulating topography from

Walmer to Greenbushes. Flat grades are ideal for housing, but low-lying areas require adequate drainage measures. Slopes steeper than 20 degrees should not be developed due to visual pollution and skyline intrusion. The area practices social justice, focusing on sustainable environmental, social, and economic development. Its culture of public participation and non-racial, non-sexist, and sustainable municipality aims to improve the quality of life for its communities in a secure, safe, and tourist-friendly environment.

Gqeberha has experienced decentralization over the past twenty years and this has affected its downtown CBD, North End, Sidwell and Korsten areas. Commercial and industrial activities are moving to Walmer, Newton Park, and Fairview, including motor sales outlets. However, this trend is reversing, with commercial activities taking up vacant space. Rural areas face threats from urban sprawl, ecological disruption, subdivision and rezoning applications, engineering infrastructure pressure, and lack of land use management policies.

The Rural Land Use Management Policy aims to achieve the following:

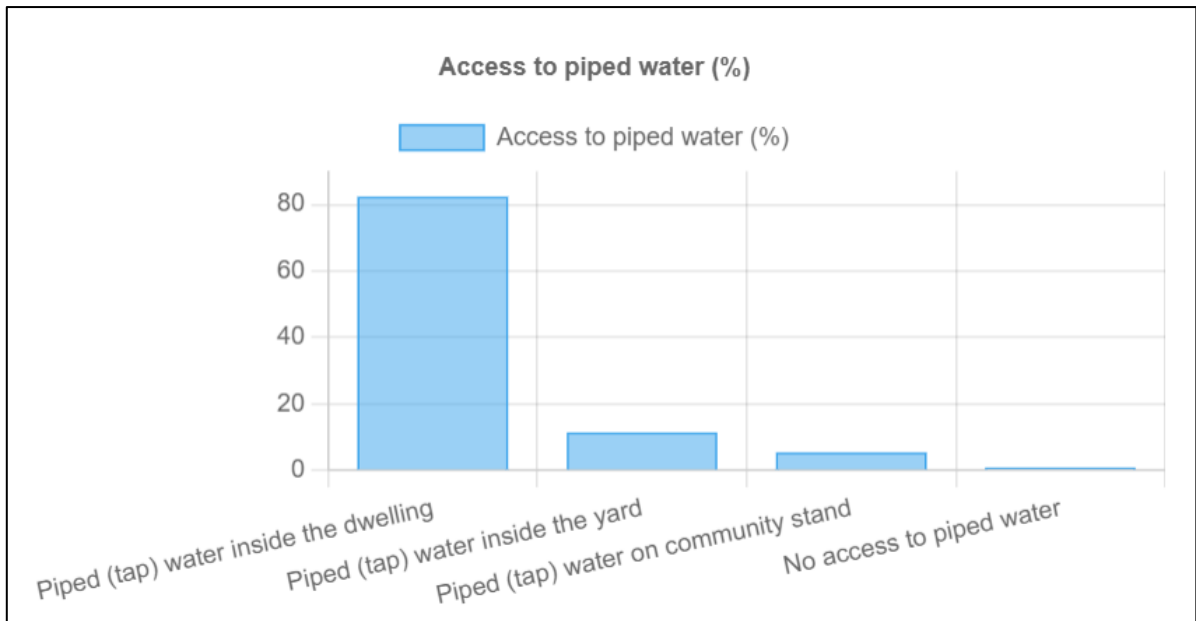
- Minimising the footprint of the city.
- Preventing the destruction of valuable agricultural land.
- Enhancement of open spaces and protection of ecologically sensitive land.
- Providing choice in terms of housing typologies.
- Creating sustainable communities.

Rural Development Zones are partly developed areas with dispersed ecological sensitivities, not suitable for urban development in the medium to long term. Biodiversity Zones are sensitive ecological areas with potential for biodiversity support. Agriculture Promotion Zones are large cadastral units or farms partially unspoiled and developed on the northern periphery of built-up areas. These areas must be maintained to minimize human interventions and support spatial objectives of city restructuring. The proposed development in Walmer includes structures suited for a racetrack, highlighting the need for careful planning and management of these areas (NMBM Urban Review Project, 2007).

5.3. Institutional profile

5.3.1. Access to piped water

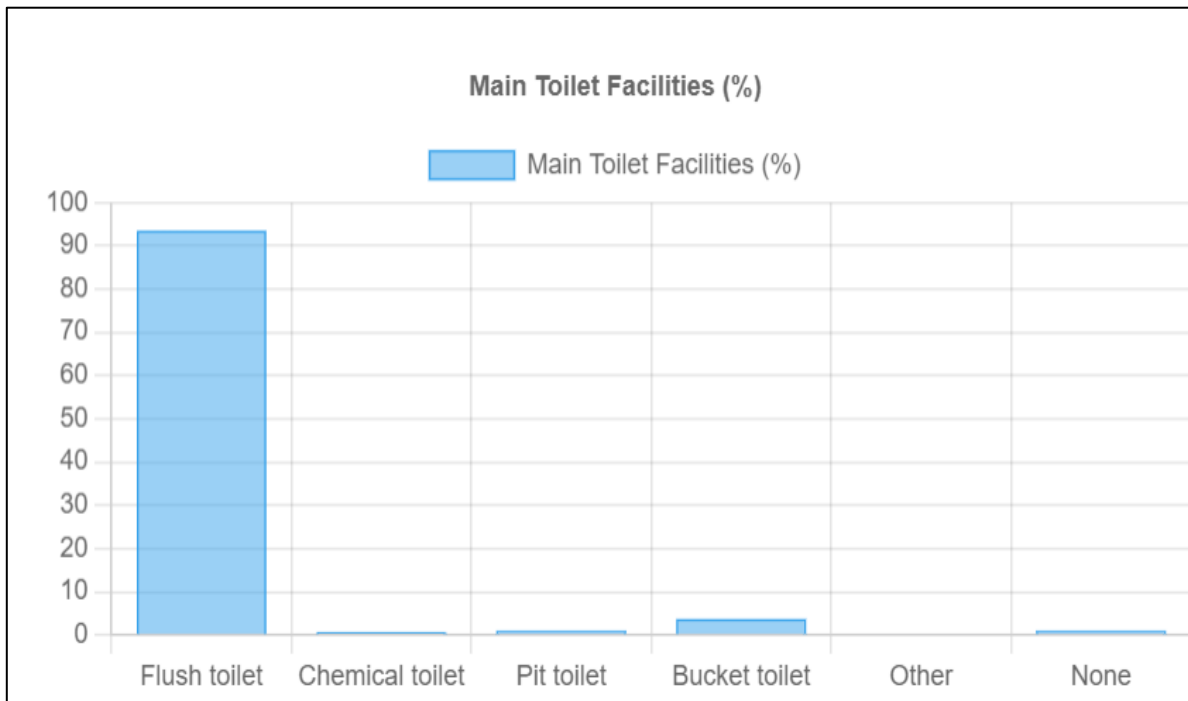
Based on StatsSA Census 2022 data, 82.3% of NMBM households have access to municipal water that is reticulated inside their dwellings. 11.4% of the households have access to municipal water inside their yards, while 5.4% of households rely on community stand pipes to access water. A minority (0.8%) of the households have no access to piped municipal water. This distribution is depicted in the diagram below.



Source: Stats SA Census 2022 data

5.3.2. Access to sanitation

Based on the StatsSA Census 2022 data, 93.5% of the NMBM households have access to flush toilets, this is followed by 3.7% of the households that still rely on the bucket system for sanitation. The remainder of the households rely on either chemical toilet (0.6%), pit toilet (1%) or have no access to sanitation services (1%).

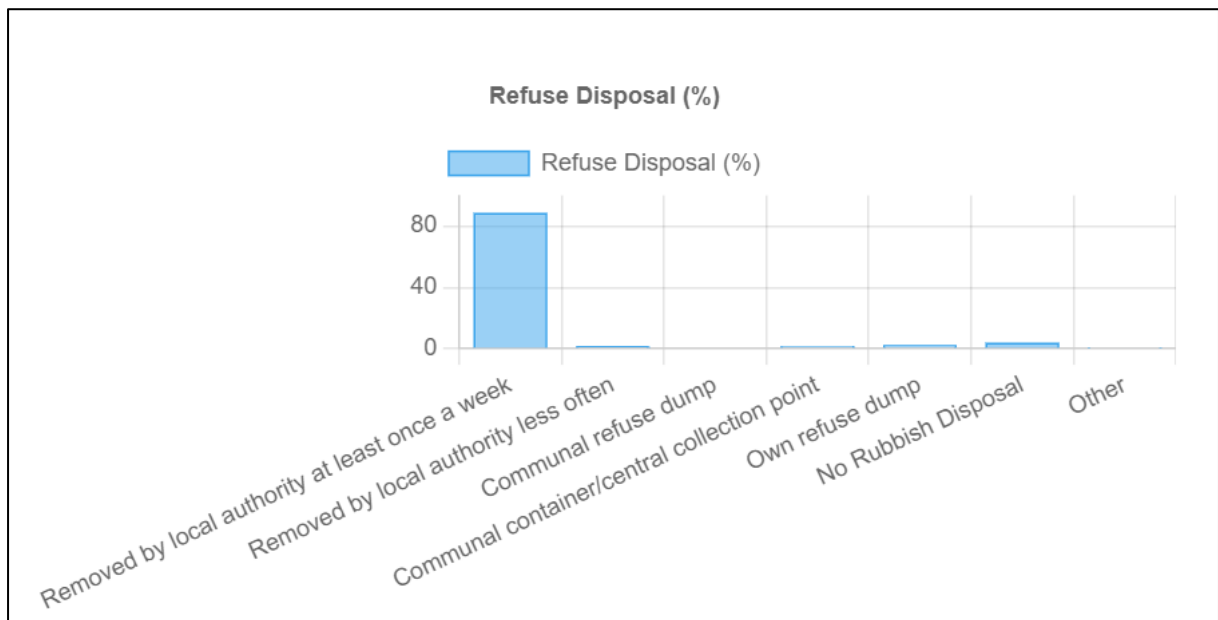


Source: Stats SA Census 2022 data

NMBM IDP reported that the Metro has the highest household access to improved sanitation of all Metros in the country. NMBM rolled out basic sanitation in some historic informal settlements and relocated other households to formal sites with waterborne sanitation. NMBM continues to assess the extent of sanitation provision backlog in recently established informal settlements. Any sanitation related challenges in such areas will be addressed as part of the NMBM Bucket Eradication Programme. (NMBM IDP 2022/23 to 2026/27).

5.3.3. Refuse collection and disposal

Based on the StatsSA Census 2022 data, 88.8% of the NMBM households received refuse collection and disposal services at least once a week, this has increased since the General Household Survey (2020) which recorded 85.8% of households receiving weekly service (NMBM IDP 2022/23 to 2026/27). Approximately 4% of the NMBM households do not receive any refuse collection and disposal services. The rest of the households receive an infrequent service (less than a week) while other households rely on central collection points or use their own refuse dumping methods.



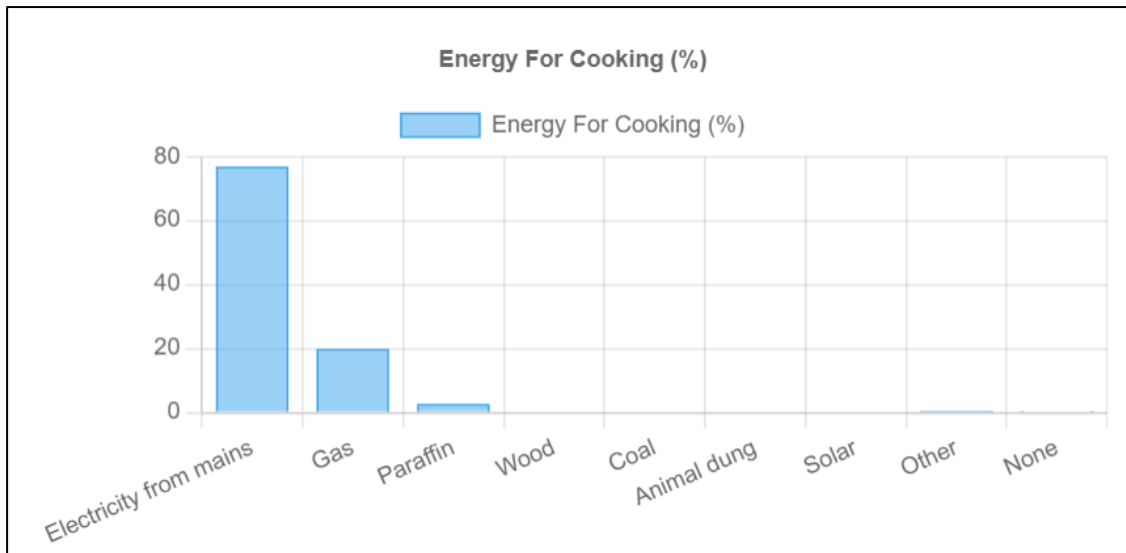
Source: Stats SA Census 2022 data

The municipality continues to fight the challenge of illegal dumping and refuse collection in informal settlements without proper access roads. (NMBM IDP 2022/23 to 2026/27).

NMBM is also mandated to operate the waste disposal sites in its jurisdiction. Two general waste disposal sites are reported by the IDP as permitted, the Koedoeskloof and Arlington landfill sites. The estimated remaining life-span of both sites is reported to be four years.

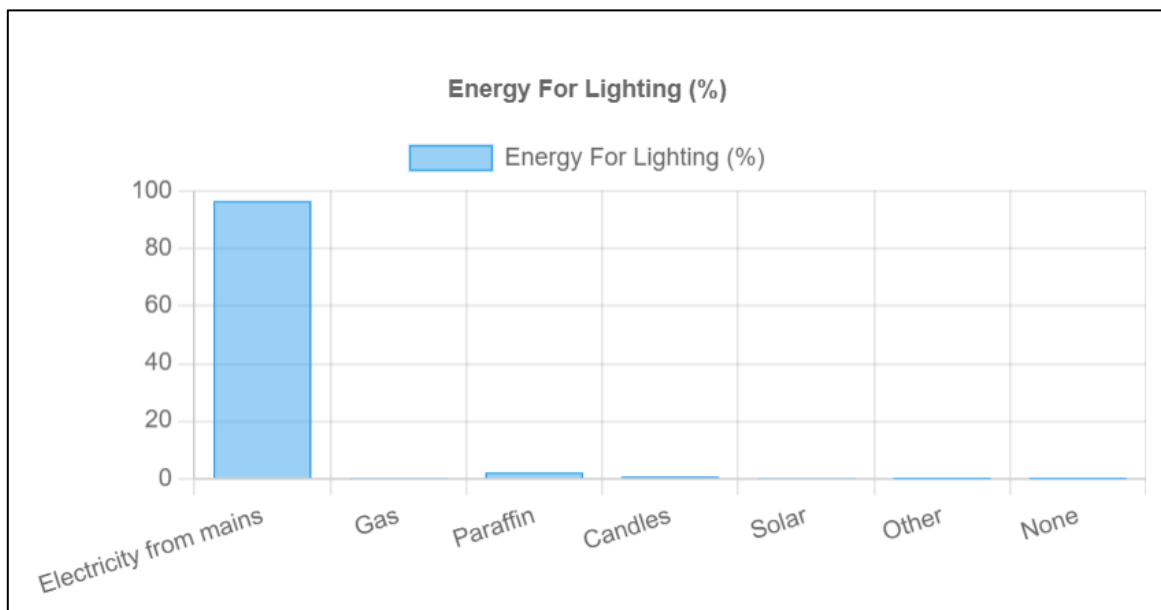
5.3.4. Access to electricity

At least three quarters (76.9%) of the total households in NMBM have access to municipal supplied electricity for cooking, while other households make use of alternative sources such as gas (19.8%) and paraffin (2.7%).



Source: Stats SA Census 2022 data

A significantly high percentage of households in NMBM have access to electricity for lighting (96.5%) while the remainder of the households rely on paraffin powered lights and candles.



Source: Stats SA Census 2022 data

The NMBM continues to explore sustainable approaches towards addressing illegal electricity connections in informal settlements and other non-proclaimed areas. The Metro introduced an Electricity Tampering Amnesty Project. The project intends to create a platform that allows all customers to voluntarily declare any type of tampering with municipal electricity meters or equipment. Those that declare tampering will not have associated fees and charges raised for the specified period (NMBM IDP 2022/23 to 2026/27).

5.3.5. Housing

Informal settlements in South Africa are growing due to factors like rural-urban migration, slow housing delivery, and relocation. The private sector struggles to provide affordable housing, leading to densification and overreliance on municipalities. Promoting formalization is crucial for maintaining socio-economic relations. NMBM has the lowest level of informal houses of all Metros in South Africa, which stood at 9.5% in 2020. The demand for subsidised housing as recorded in the Housing Needs Database (2020) was 124 342 houses. This is significantly higher than what was recorded by StatsSA. (NMBM IDP 2022/23 to 2026/27).

According to the Shisaka Development Management Services report on sustainable housing in 2017, the following was concluded about NMBM:

- There are high levels of households living in formal housing (85%)
- There are high levels of households living in owned formal housing (57%)
- 12% of households are living in informal housing conditions (in informal settlements and back yards).

It is concluded that inequality and poverty in NMBM is mostly felt at the community level. The Metro's Human Settlements function is therefore, to primarily address this inequality through the delivery of housing, management and upgrading of informal settlements, the facilitation of social housing and the release of land. (NMBM IDP 2022/23 to 2026/27). In fulfilling its mandate, the Metro has been experiencing the following challenges pertaining to housing delivery:

- A housing market that excludes/limits poor households;
- Persistent housing affordability across various sub-markets, particularly the gap-market;
- Weak spatial planning and governance capabilities;
- High-cost of well-located land for development;
- Inability to adequately respond to the diverse needs of low-middle income households;
- Absence of a range of typologies and tenure types to support the needs of poor households;
- Limited success of social housing to provide rental accommodation at scale; and
- Escalating cost of development for government, resulting in a reduced number of housing units delivered.

Despite the above limitations, in pursuit of sustainable and integrated human settlement projects, the Metro continues to prioritise the following objectives for all communities:

- Access to adequate accommodation that is suitable, relevant appropriately located, affordable and fiscally sustainable.
- Access to basic services such as water, sanitation, refuse removal and electricity.
- Security of tenure, irrespective of ownership or rental, formal or informal structures.
- Access to social services and economic opportunities within a reasonable distance (NMBM IDP 2022/23 to 2026/27).

5.3.6. Education facilities

The Metro has a total number of approximately 324 schools, which consists of about 269 ordinary public schools, 11 special needs schools, 25 independent schools and 19 early childhood development centres. There is also one public university, the Nelson Mandela Metropolitan University, and various private institutions and 4 FET's (COGTA District Development Model, NMBM Profile 2020).

The Walmer schools' list follows:

- Hoërskool D.F. Malherbe High School;

- Walmer Secondary School High School;
- The Capstone School;
- Walmer Primary School;
- Walmer West Primary School;
- Stedin College Private Educational Institution;
- Clarendon Park Primary School;
- Theodor Herzl Schools;
- Settlers Park Primary;
- Harvest Christian School Private educational institution;
- Walmer Pre-Primary School;
- Vernon Gamanda High School;
- Gateways Pre-Primary;
- Theodor Herzl Pre-Primary Kindergarten;
- Montessori School;
- Victoria Park Grey Primary School;
- Tree Tops Play School;
- Kim's Kids Academy; and
- Walmer Educare.

There is still a shortage of schools especially in the townships where the ratio of student/teacher is high. Another disadvantage for township schools is the teaching materials and equipment such as laboratories and libraries. In most instances, affording parents end up sending their children to more affluent schools in the city.

5.3.7. Public Health

As reported in the IDP (2022/23 to 2026/27), NMBM is faced with a crisis of continuing multiplicity of diseases worsened by:

- The absence of coherent Municipal Health Plan and Strategy;
- A shortage of critical health skills;
- Environmental impact challenges, and effects of climate change;
- Unhygienic public spaces due to illegal refuse dumping and other forms of pollution;
- Institutional legal compliance challenges with the Occupational Health and Safety Act; and
- A shortage of suitable land for burial.

There is a shortage of clinics, with a number of clinics classified as being overcrowded and understaffed.

The Metro has the following facilities serving for health service delivery:

- Two tertiary hospitals;
- One regional hospital;
- Four specialised hospitals;
- One district hospital;
- Five community healthcare centres (CHCs) with 24-hour service, and three of these functioning as day centres;
- 39 fixed clinics;
- Four satellite clinics;
- One clinic with extended 12 hours' services;

- Seven mobile clinics, and
- 4 private hospitals (COGTA District Development Model, NMBM Profile 2020).

Only 6 health care centers are located close by the proposed development area; Meta-Clinic, Walmer Health Centre, Walmer 8th Avenue Clinic, Bloemhof Community Health Centre, General Medical Practice (EPSWI), Walmer 14th Avenue Clinic (<https://www.medpages.info>).

5.3.8. Infrastructure development gaps

Water and sanitation, roads, stormwater, and transportation are the primary focus of the NMBM, with regards to design and implementation of services. The drought and COVID-19 impacts have heightened the need for adequate water supply and sanitation. Though the growth of informal settlements complicates basic service provision, the IDP 2023/24 to 2026/27 provides that the Metro aims to deliver responsible water and sanitation services to residents, managing water supply, treatment, bulk supply, distribution, and wastewater collection.

Furthermore, the IDP 2022/23 states that the Nelson Mandela Metropolitan Municipality is implementing a Revitalisation Plan to address the loss of sports and recreation infrastructure due to vandalism and theft. The plan includes the development of multi-purpose centres, the completion of Gelvandale Astroturf Sportfield, and the rehabilitation of Uitenhage Central Sport Stadium. It also plans to implement strategic projects and programs, promoting active lifestyles and sports hub development.

The following are experienced in relation to municipal infrastructure:

- The Municipality is tasked with providing safe, affordable, sustainable, and accessible multimodal transport services and infrastructure for integrated land use development and optimal mobility for residents and users.
- Key strategies include providing adequate roads, upgrading existing roads, providing facilities for non-motorized transport users, implementing stormwater infrastructure, and designing and implementing municipal civil services.
- Community issues include budget maintenance and basic services for informal settlements, with service disruptions primarily due to vandalism and ageing infrastructure issues, affecting resource allocation and service delivery.
- Dam levels have dropped to below 16%, but severe water restrictions remain in place. 67% of the city's water comes from the Gariiep Dam, but it cannot be distributed to all areas due to high water consumption. If current consumption patterns continue, KwaNobuhle and Kariega areas may run out of water by July 2022. The Nelson Mandela Bay Municipality is considering a desalination plant with Coega Development Corporation as an implementing agent.
- There is a backlog of tarring or gravel access roads, with a total of approximately 600km. The backlog has occurred largely due to the fact that the housing development programme funded by the government only includes sufficient funding for gravel roads (COGTA District Development Model, NMBM Profile 2020).
- Stormwater drainage inadequacies are mostly experienced in disadvantaged area, especially in newly developed areas, as a result of limited funding for roads and stormwater infrastructure (COGTA District Development Model, NMBM Profile 2020).
- Ageing infrastructure, especially electricity, water and sanitation infrastructure results in leakages, pipe bursts, blockages and electricity disruptions, which in turn cause service delivery disruptions.

- The completion of the Nooitgedacht Low Level Scheme remains the most significant project to ensure long-term water sustainability in the NMB. This project supports both the provision of basic water, but also water for economic development. Phase 2 is operational and Phase 3 planned for completion by Amatola Water as the implementing agent funded by the Department of Water and Sanitation (DWS) is scheduled for completion in June 2021.
- Fishwater Flats Wastewater Treatment Works (FWF WWTW) commenced with the completion of the Phase 1 (inlet works). Subsequent contracts have commenced with as part of Phase 2. This and other Wastewater Treatment Works are critical (socially & economically) for further growth and development in the metro, not to mention the support for the Bucket Eradication Programme. The total funding needed exceeds R1 billion.
- Economic infrastructure for development such as the Coega Wastewater Treatment Works and the Coega Return Effluent Scheme is needed to support the Coega SEZ. Further development of the SEZ if no funding is availed for these projects. An investment of approximately R600M is required to complete the project, but the viability of the project is also dependent on the FWF WWTW upgrades.
- Planning has commenced on a new wastewater treatment facility to support the housing developments north of Motherwell and the Coega SEZ. This plant is planned for an ultimate capacity of 120 MI/d costing in the region of R1 500 000, 00. A start up capacity of approximately 40-50MI/d will be required and is estimated at R750M (including a sea outfall).
- The Municipality is working on a long-term capital investment plan to support economic growth and socio-economic development (NMBM IDP, 4th Edition).

The responsible delivery of water and sanitation services is provided by way of managing the supply of water, distribution of water, wastewater collection and treatment of wastewater, which includes the following current status quo:

- The storage of water in 10 dams;
- Treatment of water at 8 water treatment works including springs;
- Bulk supply of treated water via 650km of large diameter pipelines to the metro boundaries into distribution reservoirs;
- Water distribution reticulation to all customers via 4800km water pipelines;
- Treatment of sewage at 8 wastewater treatment plants for both domestic and industrial;
- Monitoring trade effluent discharges; and
- The relevant electrical and mechanical maintenance of plant/equipment (NMBM IDP, 2nd Edition).

5.4. Economic profile

NMBM is a major economic role player in the Eastern Cape with two ports, the Port of Port Elizabeth and the Port of Ngqura, located in the Coega Special Economic Zone (CSEZ). The CSEZ is a multi-billion-dollar industrial complex that accommodates heavy, medium and light industries. The two ports located in the boundary of the Metro further enhance its attraction for trade and industry. The Metro also offers a wealth of tourism and recreation opportunity due to its biodiversity, beaches and open spaces (NMBM IDP, 4th Edition).

The economic performance of the NMBM is put in perspective by comparing it with its neighbouring municipalities, the Eastern Cape, and South Africa at large. The IDP reports on the economy of NMBM based on information extracted from the Statistical Overview: Nelson Mandela Bay Metropolitan Municipality, which was prepared and published by IHS Markit in 2022, based on historical data.

NMBM contributed 34.9% (R163 billion) to the Eastern Cape Gross Domestic Product (GDP) in 2021, and 2.6% to the South African GDP. NMBM’s annual contribution to the national economy remains similar each year, but smaller than the peak of 2.9% reported in 2015 (NMBM IDP 2022/23 to 2026/27).

TABLE 4: Gross Domestic Product (GDP) – Nelson Mandela Bay, Eastern Cape, and National total, 2011-2021 (R billions, current prices)

	Nelson Mandela Bay	Eastern Cape	National Total	Nelson Mandela Bay as % of province	Nelson Mandela Bay as % of national
2011	93.0	255.4	3,327.0	36.4%	2.8%
2012	102.6	283.4	3,566.4	36.2%	2.9%
2013	110.7	305.7	3,868.6	36.2%	2.9%
2014	117.2	326.3	4,133.9	35.9%	2.8%
2015	126.2	352.9	4,420.8	35.8%	2.9%
2016	132.8	373.2	4,759.6	35.6%	2.8%
2017	141.9	400.4	5,078.2	35.4%	2.8%
2018	149.1	421.2	5,357.6	35.4%	2.8%
2019	153.7	435.6	5,605.0	35.3%	2.7%
2020	148.0	423.5	5,521.1	34.9%	2.7%
2021	163.4	467.8	6,206.3	34.9%	2.6%

Source: IHS Markit Regional eXplorer version 2236

Source: (NMBM IDP 2022/23 to 2026/27)

In 2021, NMBM achieved an annual GDP growth rate of 6% which is significantly higher GDP growth than Eastern Cape (4.93%), and is higher than that of South Africa, where the 2021 GDP growth rate was 4.91%. NMBM ranked higher than all other Metros and district economies in the Eastern Cape It is anticipated that NMBM will grow economically at an annual rate of approximately 1.49% from 2021 to 2026 (NMBM IDP 2022/23 to 2026/27).

NMBM’s productive activity comprises of various industries, as indicated by the table below:

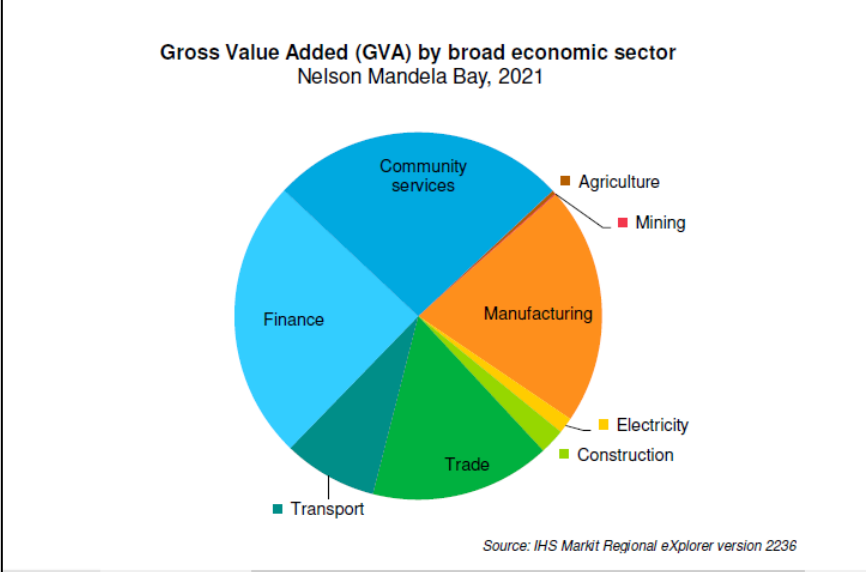
TABLE 5: Gross Value Added (GVA) by Broad Economic Sector – Nelson Mandela Bay, 2021 (R billions, Current Prices)

	Nelson Mandela Bay	Eastern Cape	National Total	Nelson Mandela Bay as % of province	Nelson Mandela Bay as % of national
Agriculture	0.5	8.1	150.9	6.4%	0.34%
Mining	0.1	0.7	481.0	14.6%	0.02%
Manufacturing	29.8	54.4	726.4	54.8%	4.11%
Electricity	2.0	9.2	171.9	21.9%	1.17%
Construction	3.2	10.8	139.0	29.3%	2.27%
Trade	22.6	76.0	759.8	29.7%	2.97%
Transport	11.8	26.4	392.3	44.6%	3.00%
Finance	35.2	92.3	1,319.9	38.1%	2.66%
Community services	37.1	140.0	1,422.3	26.5%	2.61%
Total Industries	142.2	417.9	5,563.5	34.0%	2.56%

Source: IHS Markit Regional eXplorer version 2236

Source: (NMBM IDP 2022/23 to 2026/27)

FIGURE 9: Gross Value Added (GVA) by Broad Economic Sector – Nelson Mandela Bay, 2021 (Percentage Composition)



Source: (NMBM IDP 2022/23 to 2026/27)

The community services sector has been the largest, accounting for R37.1 billion (26.1%) of the total GVA in the NMBM economy. This is followed by the financial sector and the manufacturing sector. The sector that contributes the least to the economy of NMBM is the mining sector.

5.5. Socio-economic profile

5.5.1. Income and unemployment

The StatsSA General Household Survey (2020) revealed that approximately 27.2% of households in NMBM relied on social grants as their main source of income. Approximately 55.6% of households earn salaries and wages as the main source of income (NMBM IDP 2022/23 to 2026/27).

The IDP reports that the estimated number of NMBM households living under the “food poverty line” is 38 805 (or 10.4% of total households). The estimated number of households living under the 2022 “lower-bound poverty line” is 69 005 (or 18.5% of total households). The estimated number of households living under the 2022 “upper-bound poverty line” is 97 705 (or 26.2% of total households). The below table is extracted from the NMBM IDP (2022/23 to 2026/27) and provides a detailed income/poverty assessment of the NMBM during 2022.

TABLE 23: Income distribution of Nelson Mandela Bay’s households

Annual household income category	Households			NMB as % of province	NMB as % of national
	Nelson Mandela Bay	Eastern Cape	South Africa		
≤ R2,400*	23	127	1,260	18.0%	1.8%
R2,400 to R6,000*	462	2,440	22,200	18.9%	2.1%
R6,000 to 12,000*	3,930	23,100	197,000	17.0%	2.0%
R12,000 to 18,000*	7,190	43,700	361,000	16.4%	2.0%
R18,000 to 30,000*	27,200	172,000	1,350,000	15.8%	2.0%
R30,000 to 42,000**	30,200	199,000	1,480,000	15.2%	2.0%
R42,000 to 54,000***	28,700	194,000	1,440,000	14.8%	2.0%
R54,000 to 72,000	39,600	246,000	1,910,000	16.1%	2.1%
R72,000 to 96,000	36,200	209,000	1,730,000	17.3%	2.1%
R96,000 to 132,000	36,800	196,000	1,770,000	18.8%	2.1%
R132,000 to 192,000	34,700	159,000	1,520,000	21.9%	2.3%
R192,000 to 360,000	44,800	173,000	1,870,000	25.9%	2.4%
R360,000 to 600,000	33,000	108,000	1,310,000	30.5%	2.5%
R600,000 to 1,200,000	29,900	81,000	1,100,000	36.9%	2.7%
R1,200,000 to 2,400,000	16,600	41,100	567,000	40.5%	2.9%
> R2,400,000	3,390	7,110	102,000	47.7%	3.3%
Total	373,000	1,850,000	16,700,000	20.1%	2.2%

Source: NMBM analysis, StatsSA data (National Poverty Lines 2022) and IHS Markit data

Despite the fact that NMBM’s biggest economic sectors include manufacturing, finance, community services, and transportation, the unemployment rate is higher at 36.6%. The Metro’s largest employers are the services, trade, and manufacturing industries. The Metro has a poor enabling environment. This pertains to the availability of service delivery and infrastructure. This element is essential in attracting investment prospects to the area and should be addressed immediately. The following chart depicts the region’s employment level, based on Census 2011 data.

Employment

36.8%

Employed

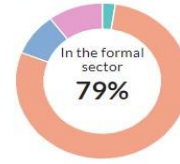
about 1.4 times the rate in Eastern Cape: 26.03%
a little less than the rate in South Africa: 38.87%

Population by employment status



* Universe: Individuals 15 and older
Source: Census 2011

Sector of employment



* Universe: Workers 15 and older
Source: Census 2011

Annual income

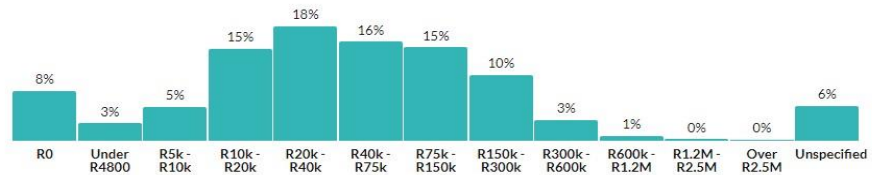
R57 500

Average annual income

nearly double the amount in Eastern Cape: R30 000

nearly double the amount in South Africa: R30 000

Employees by annual income



* Universe: Employed Individuals
Source: Census 2011

5.5.2. Tourism

The NMBM is regarded as the “official” gateway to the scenic Eastern Cape Province and the world-renowned Garden Route. It is recognised as both the Mohair and Bottlenose Dolphin Capital of the world and home to the largest breeding colony of the African penguin. The metro boasts the Big 7 (Elephant, Buffalo, Rhino, Lion, Leopard, Southern Right Whale and Great White Shark) within the municipal boundaries. Port Elizabeth is known for its over 40km coastline boasting a multitude of blue flag beaches and hours of sunshine to enjoy. It is also known as the 5-biome city.

Another attraction to the metro is the architectural profile which follows a chronological historical pattern throughout the city. The biggest numbers of art deco buildings in South Africa are found in the city centre of Port Elizabeth. In Uitenhage, buildings from the 1800s are still found in their original form. The city and its immediate environs offer a wide selection of attractions; these include a rich historical heritage as well as nature based eco-offerings, activities and experiences. The area supports the most diverse array of vegetation types in South Africa, six of the country’s seven terrestrial biomes are represented in the Eastern Cape. It also consists of township's unique history dates back to 1898, resulting in a diverse population (<https://www.nelsonmandelabay.gov.za>).

5.5.3. Crime

The NMBM IDP 2020/21 revision highlighted the need for collaboration with state and societal stakeholders to improve urban safety. The 2022/23 crime statistics showed a 7% increase in community-reported serious crimes, with contact crimes increasing by 7.7% and property-related crimes by 3.6%. However, contact sexual offences, sexual assault, robbery at non-residential premises, bank robbery, and arson showed decreases.

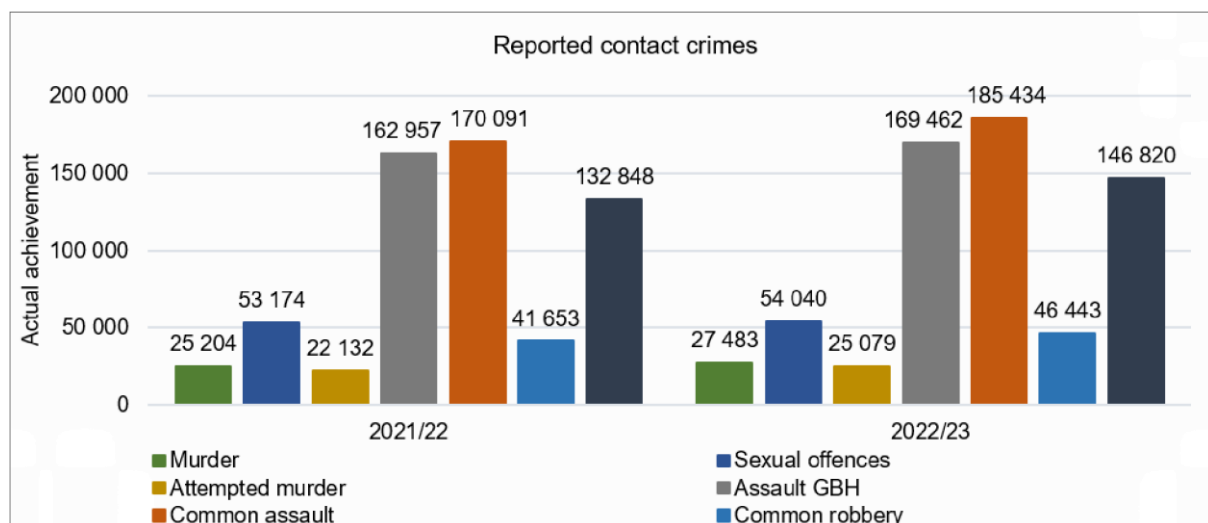
NMBM has one of the highest murder rates in the country, standing at 71 murders per 100 000.

The municipality participated in the Integrated Safer Cities Programme (SAPS) as a pilot city, but momentum has been lost due to leadership changes. Other safety-related initiatives include community safety and public health interventions, including EWP volunteers guiding tourists, and the roll-out of domestic violence workshops by the Corporate Services Department (State of Urban Safety in SA Report, 2021).

Visible Policing provides direction for effective crime prevention, with the Division aiming to deter all crime by providing a proactive and responsive police service. The four Components of the Division are Proactive Policing Services, Firearms, Liquor and Second-Hand Goods Services, Rapid Rail Policing, Police Emergency Services, and Social Crime Prevention.

A key operational outcome is a safe and secure environment conducive to social and economic stability and supporting a better life for all. The closure of illegal liquor premises addresses issues of domestic violence, community stability, and promotes a sober and secure society. Operations like #CRIMEMUSTFALL 2022/23, Operation Vhuthu Hawe, and Operation Safer Festive Season aim to combat violent crimes and ensure a peaceful holiday season.

Between 2021/22 and 2022/23, the top 30 High Contact Crime Weight stations saw a 5.6% rise in recorded contact crimes, from 85,510 to 90,291. Contact crimes rose in Cape Town Central by 49.6%, Durban Central by 29.8%, Mitchells Plain by 20.6%, Moroka by 19.9%, Mfuleni by 17.9%, Nyanga by 17.2%, Ivory Park by 12.0%, and Jeppe by 10.2%, resulting in non-achievement of the goals. Load shedding also directly affects the country's crime rate.



Source: SAPS Annual report draft 2022/23

6. SOCIO-ECONOMIC IMPACT ASSESSMENT

The socio-economic impact assessment component of the report provides a preliminary identification of potential socio-economic impacts associated with the proposed Arlington multiple-use development.

The process entails the description of anticipated impacts associated with the various social change processes, which is followed by the preliminary assessment of identified impacts. A rating scale is used

to define the significance of an impact, which is aligned to a mitigation (negative impacts) or enhancement (positive impacts) measure.

To ensure swift integration with the EIA and to enable a direct comparison between various specialist studies, JG Afrika as the main consultant, has prescribed a standard rating scale to be used throughout all the reports to assess and quantify the identified impacts.

Table 6.1 Socio-economic impact identification.

ISSUE (THEME)	IMPACT	IMPACT DESCRIPTION	PRE-MITIGATION SIGNIFICANCE	MITIGATION	POST-MITIGATION SIGNIFICANCE
CONSTRUCTION PHASE					
Demographic changes	Influx of jobseekers	<p>The development may attract the influx of skilled and semi-skilled jobseekers into the local area. this may result in the following:</p> <ul style="list-style-type: none"> • Conflict between locals and outsiders, especially when the outsider labour force receives preferential treatment. • Cultural diversity conflicts. 	MEDIUM NEGATIVE	<p>The developer must ensure the establishment of a Project Steering Committee (PSC) to facilitate the following:</p> <ul style="list-style-type: none"> • Conduct an audit of the affected communities in terms of employment capacity. • Identify potential workers from the affected and surrounding communities. • Identify possible conflicts in and between communities. • Set up a central labour desk where all workers register and only workers registered on the database should be considered for employment. • Recommend support programmes that would assist with conflict minimisation and resolution. • Contractually oblige sub-contractors to only employ workers through the labour force desk. 	LOW NEGATIVE
Institutional changes	Pressure on existing public services	<p>The development employees and jobseekers temporarily residing in the project area may place pressure on the existing public services. This is most likely to result in the following:</p> <ul style="list-style-type: none"> • Increased number of informal settlements and pressure on the metro for housing and related public services. • The potential increase in the spread of communicable diseases may place pressure on public healthcare facilities. • An increase in social ills such as substance abuse resulting in increased crime rate, may place pressure on public safety and security. • Increased unemployment rate within jobseekers and a growing crime rate for survival. 	LOW NEGATIVE	<ul style="list-style-type: none"> • Health and safety campaigns must be held in collaboration with public health servants, to educate construction workers on the spread of communicable diseases. • The contractor must collaborate with the local SAPS to regulate the behaviour of construction workers, and the regulation of site access by the public and jobseekers. 	LOW NEGATIVE
Economic changes	Local economic spin-offs	<p>The development may result in local and regional economic spin-offs owing to construction expenditure on local suppliers, and the increased buying power of the development employees. The positive impacts can be as follows:</p> <ul style="list-style-type: none"> • The injection of income into the area, in the form of wages and business sales, will contribute to local economic growth. • General construction material and equipment sourcing could benefit the local businesses, and this will have an indirectly positive impact on the local economy. • Off-site accommodation would also be required for those construction staff not residing in the area, with potential contribution to localised accommodation facilities. • Transport services to and from site will also be required, and this indirect spend boosts the local economy. • Supporting industries and/or small businesses, such as for catering, accommodation, suppliers of construction material and equipment, transport, etc., may benefit from the construction phase of the development. 	LOW POSITIVE	<ul style="list-style-type: none"> • The developer must ensure that the principle of utilising local business resources is in accordance with government policies relating to local procurement. • The developer must establish a database of local companies which qualify as potential service providers, prior commencement of the tendering process. • The use of local contractors especially SMMEs from communities around the project area where ever possible should be promoted. 	MEDIUM POSITIVE

ISSUE (THEME)	IMPACT	IMPACT DESCRIPTION	PRE-MITIGATION SIGNIFICANCE	MITIGATION	POST-MITIGATION SIGNIFICANCE
Socio-cultural changes	Employment opportunities	The construction phase will result in the availability of temporary employment opportunities for skilled, semi-skilled and unskilled labour force.	MEDIUM POSITIVE	<ul style="list-style-type: none"> Where reasonable and practical, preference must be given to local SMMEs, especially for the low skills levels. Equal job opportunities for women and men must be promoted. Culture and tradition must be considered when planning the division of labour for construction. Employment must be managed by the PSC that uses a selection system a fair recruitment of semi and unskilled workers from all local impacted communities in accordance with government policies related to local procurement. This must ensure a fair and equitable recruitment process. 	HIGH POSITIVE
	Skills development and capacity building of workers and local SMMEs	The construction phase of the development may be an opportunity for skills transfer and capacity building by skilled and experienced workers for the unskilled and upcoming workers.	LOW POSITIVE	<ul style="list-style-type: none"> The developer must include a contractual obligation for larger contractors to work with small SMMEs to train and transfer skills. The developer must implement on-the-job training for unskilled labourers. The developer should look into developing a skills development programme, which may include training in business, management, monitoring and evaluation. 	MEDIUM POSITIVE
	Disruption in daily living and movement patterns	The construction phase of the development may result in the disruption of the daily living and movement patterns of surrounding communities, due to traffic and other intrusions caused by construction activities.	MEDIUM NEGATIVE	<ul style="list-style-type: none"> Construction activities must be limited to the construction site only. Proper and timeous notification must be given to residents when an activity will affect their movement (such as road closure). Surrounding communities must have access to a grievance reporting mechanism, e.g. through a project steering committee. The developer should at all times avoid using busy roads and roads within densely populated areas. 	LOW NEGATIVE
	Health and safety risks for workers and surrounding community.	Inadequate management of general construction activities could result in health and safety risks; such as construction related accidents, respiratory infections from dust generation and air pollution, unsafe potable water, increased prevalence of communicable diseases, etc. This is associated with the following: <ul style="list-style-type: none"> Uncontrolled access into the construction site resulting in theft, safety and security issues and vandalism. Threat to surrounding properties due to uncontrolled fires. Threat to surrounding properties owing to potential pollution causing flies, rodents and pests, and the contamination of surrounding water resources. 	LOW NEGATIVE	<ul style="list-style-type: none"> Measures to suppress dust must be implemented at all times. Construction workers must wear all relevant protective clothing. Dangerous equipment must be used under strict supervision. Waste must be safely disposed at the nearest licensed waste disposal facility. Provide safe and clean drinking water on site. Provide sufficient ablution facilities for the site staff. 	INSIGNIFICANT
	Safety and security risk	Safety and security issues for the surrounding communities may be introduced due to an influx of jobseekers. Valuable construction equipment and material could also attract criminals.	LOW NEGATIVE	<ul style="list-style-type: none"> The construction site must be fenced off and safe guarded at all times, to prevent trespassing. Construction workers must be provided with identity tags and access to site by unauthorised people must be prohibited. Jobseekers should not be allowed to gather around the construction site. The local SAPS must be allowed entry to site anytime, to monitor security and safety. 	INSIGNIFICANT
	Disruption and changes to the quality of living environment	Intrusion impacts such as noise and visual intrusion, and aesthetic impacts, resulting from emissions, movement of construction vehicles, earthworks, etc.; may cause a decrease in the quality of the physical	MEDIUM NEGATIVE	<ul style="list-style-type: none"> The surrounding residents must be advised at construction commencement, and guided on how they could lodge complaints when necessary. All dust suppressing techniques must be applied. 	LOW NEGATIVE

ISSUE (THEME)	IMPACT	IMPACT DESCRIPTION	PRE-MITIGATION SIGNIFICANCE	MITIGATION	POST-MITIGATION SIGNIFICANCE
		environment for the surrounding residents, businesses, schools and other social facilities.		<ul style="list-style-type: none"> All construction vehicles and equipment must be regularly serviced, to prevent the emission of air pollutants. 	
OPERATIONAL PHASE					
Socio-cultural changes	Employment opportunities	The development is typically mixed use and includes facilities for businesses. This will result in employment opportunities, albeit fewer than the construction phase.	MEDIUM POSITIVE	Local labour force must receive primary priority.	MEDIUM POSITIVE
Economic changes	Impact on the local economy	<p>During the operation phase, the development may result in local economic opportunities for surrounding businesses. There will also be an opportunity for the establishment of new or expansion of existing businesses due to increased population in the area.</p> <p>The local municipality will benefit with the income from rates and taxes that will be collected from the developers.</p> <p>Though at a very low level, local businesses may benefit from the supply of maintenance equipment.</p>	HIGH POSITIVE	<ul style="list-style-type: none"> Local businesses must receive primary priority, with fair opportunity for various business levels. 	HIGH POSITIVE
DECOMMISSIONING PHASE					
Socio-cultural changes	Disruption in daily living and movement patterns	The decommissioning of the development will result in the disruption of daily living and movement patterns.	LOW NEGATIVE	<ul style="list-style-type: none"> The surrounding residents must be advised at commencement of decommissioning activities, and guided on how they could lodge complaints when necessary. All dust suppressing techniques must be applied. All construction vehicles and equipment must be regularly serviced, to prevent the emission of air pollutants. The developer should ensure that the decommissioning activities should cause minimum disruption to local communities. For example, traffic control measures must be put in place to reduce traffic impacts. If traffic uses dust roads, dust suppression measures must be implemented. 	LOW NEGATIVE
	Displacement of families	The decommissioning of the development will result in the displacement of families who occupied the residential area of the development.	LOW NEGATIVE	No mitigation	LOW NEGATIVE
Economic changes	Employment opportunities	The decommissioning phase of the development will result in employment opportunities typical of those required in the construction phase.	LOW POSITIVE	Local labour must be considered for semi and unskilled labourers.	MEDIUM POSITIVE

ISSUE (THEME)	IMPACT	IMPACT DESCRIPTION	PRE-MITIGATION SIGNIFICANCE	MITIGATION	POST-MITIGATION SIGNIFICANCE
	Loss of employment opportunities	The decommissioning phase will also result in the loss of jobs from the businesses within the multiple-se development.	LOW NEGATIVE	No mitigation	LOW NEGATIVE

A standard rating scale is used to ensure compatibility and consistency of impact assessment. The issues and impacts identified above are described in detail, assessed in terms of selected criteria and mitigation measures recommended to reduce negative impacts and enhance positive impacts.

THEME	IMPACT	IMPACT DESCRIPTION	ALTERNATIVE	TYPE	IMPACT SCORES							OVERALL SCORE	SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	RESIDUAL IMPACT	NO-GO SIGNIFICANCE
					NATURE	EXTENT	DURATION	MAGNITUDE	ILR	REVERSIBILITY	PROBABILITY					
CONSTRUCTION PHASE IMPACTS																
Demographic changes	Influx of job seekers	<p>The development may attract the influx of skilled and semi-skilled job-seekers into the local area. this may result in the following:</p> <ul style="list-style-type: none"> Conflict between locals and outsiders, especially when the outsider labour force receives preferential treatment. Cultural diversity conflicts. 	All Alternatives, No Go alternative not applicable	Direct	Negative	2	2	2	0	3	3	27	LOW	<p>The developer must ensure the establishment of a Project Steering Committee (PSC) to facilitate the following:</p> <ul style="list-style-type: none"> Conduct an audit of the affected communities in terms of employment capacity. Identify potential workers from the affected and surrounding communities. Identify possible conflicts in and between communities. Set up a central labour desk where all workers register and only workers registered on the database should be considered for employment. Recommend support programmes that would assist with conflict minimisation and resolution. Contractually oblige sub-contractors to only employ workers through the labour force desk. 	INSIGNIFICANT	LOW
Institutional changes	Pressure on existing public services	<p>The development employees and jobseekers temporarily residing in the project area may place pressure on the existing public services. This is most likely to result in the following:</p> <ul style="list-style-type: none"> Increased number of informal settlements and pressure on the metro for housing and related public services. The potential increase in the spread of communicable diseases may place pressure on public healthcare facilities. An increase in social ills such as substance abuse resulting in increased crime rate, may place pressure on public safety and security. 	All alternatives, No Go alternative not applicable	Indirect	Negative	2	1	3	0	1	3	21	LOW	<ul style="list-style-type: none"> Health and safety campaigns must be held in collaboration with public health servants, to educate construction workers on the spread of communicable diseases. The contractor must collaborate with the local SAPS to regulate the behaviour of construction workers, and the regulation of site access by the public and jobseekers. 	INSIGNIFICANT	LOW

THEME	IMPACT	IMPACT DESCRIPTION	ALTERNATIVE	TYPE	IMPACT SCORES							OVERALL SCORE	SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	RESIDUAL IMPACT	NO-GO SIGNIFICANCE
					NATURE	EXTENT	DURATION	MAGNITUDE	ILR	REVERSIBILITY	PROBABILITY					
CONSTRUCTION PHASE IMPACTS																
		<ul style="list-style-type: none"> Increased unemployment rate within jobseekers and a growing crime rate for survival. 														
Economic changes	Local economical spin-offs	<p>The development may result in local and regional economic spin-offs owing to construction expenditure on local suppliers, and the increased buying power of the development employees. The positive impacts can be as follows:</p> <ul style="list-style-type: none"> The injection of income into the area, in the form of wages and business sales, will contribute to local economic growth. General construction material and equipment sourcing could benefit the local businesses, and this will have an indirectly positive impact on the local economy. Off-site accommodation would also be required for those construction staff not residing in the area, with potential contribution to localised accommodation facilities. Transport services to and from site will also be required, and this indirect spend boosts the local economy. Supporting industries and/or small businesses, such as for catering, accommodation, suppliers of construction material and equipment, transport, etc., may benefit from the construction phase of the development. 	All alternatives, No Go alternative not applicable	Direct	Positive	2	1	3	0	1	5	35	LOW	<ul style="list-style-type: none"> The developer must ensure that the principle of utilising local business resources is in accordance with government policies relating to local procurement. The developer must establish a database of local companies which qualify as potential service providers, prior commencement of the tendering process. The use of local contractors especially SMMEs from communities around the project area where ever possible should be promoted. 	MEDIUM	LOW
Socio-cultural changes	Employment opportunities	<p>The construction phase will result in the availability of temporary employment opportunities for skilled, semi-skilled and unskilled labour force.</p>	All Alternatives, No Go alternative not applicable	Direct	Positive	3	1	2	0	3	5	45	MEDIUM	<ul style="list-style-type: none"> Where reasonable and practical, preference must be given to local SMMEs, especially for the low skills levels. Equal job opportunities for women and men must be promoted. 	HIGH	LOW

THEME	IMPACT	IMPACT DESCRIPTION	ALTERNATIVE	TYPE	IMPACT SCORES							OVERALL SCORE	SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	RESIDUAL IMPACT	NO-GO SIGNIFICANCE
					NATURE	EXTENT	DURATION	MAGNITUDE	ILR	REVERSIBILITY	PROBABILITY					
CONSTRUCTION PHASE IMPACTS																
					Positive											
	Skills development and capacity building of workers and local SMMEs	The construction phase of the development may be an opportunity for skills transfer and capacity building by skilled and experienced workers for the unskilled and upcoming workers.	All Alternatives, No Go alternative not applicable	Direct and Indirect	Positive	2	1	2	0	3	4	32	LOW	<ul style="list-style-type: none"> • Culture and tradition must be considered when planning the division of labour for construction. • Employment must be managed by the PSC that uses a selection system a fair recruitment of semi and unskilled workers from all local impacted communities in accordance with government policies related to local procurement. This must ensure a fair and equitable recruitment process. 	MEDIUM	LOW
	Disruption in daily living and movement patterns	The construction phase of the development may result in the disruption of the daily living and movement patterns of surrounding communities, due to traffic and other intrusions caused by construction activities.	All Alternatives, No Go alternative not applicable	Direct	Negative	2	1	2	1	1	5	40	MEDIUM	<ul style="list-style-type: none"> • Construction activities must be limited to the construction site only. • Proper and timeous notification must be given to residents when an activity will affect their movement (such as road closure). • Surrounding communities must have access to a grievance reporting mechanism, e.g. through a project steering committee. 	LOW	NEUTRAL

THEME	IMPACT	IMPACT DESCRIPTION	ALTERNATIVE	TYPE	IMPACT SCORES							OVERALL SCORE	SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	RESIDUAL IMPACT	NO-GO SIGNIFICANCE
					NATURE	EXTENT	DURATION	MAGNITUDE	ILR	REVERSIBILITY	PROBABILITY					
CONSTRUCTION PHASE IMPACTS																
	Health and safety risks for workers and surrounding community.	Inadequate management of general construction activities could result in health and safety risks; such as construction related accidents, respiratory infections from dust generation and air pollution, unsafe potable water, increased prevalence of communicable diseases, etc. This is associated with the following: <ul style="list-style-type: none"> Uncontrolled access into the construction site resulting in theft, safety and security issues and vandalism. Threat to surrounding properties due to uncontrolled fires. Threat to surrounding properties owing to potential pollution causing flies, rodents and pests, and the contamination of surrounding water resources. 	All Alternatives, No Go alternative not applicable	Direct and Indirect	Negative	2	1	2	1	1	3	21	LOW	<ul style="list-style-type: none"> The developer should at all times avoid using busy roads and roads within densely populated areas. Measures to suppress dust must be implemented at all times. Construction workers must wear all relevant protective clothing. Dangerous equipment must be used under strict supervision. Waste must be safely disposed at the nearest licensed waste disposal facility. Provide safe and clean drinking water on site. Provide sufficient ablution facilities for the site staff. 	INSIGNIFICANT	NEUTRAL
	Safety and security risk	Safety and security issues for the surrounding communities may be introduced due to an influx of jobseekers. Valuable construction equipment and material could also attract criminals.	All alternatives, No Go alternative not applicable	Direct	Negative	1	1	5	2	1	2	20	LOW	<ul style="list-style-type: none"> The construction site must be fenced off and safe guarded at all times, to prevent trespassing. Construction workers must be provided with identity tags and access to site by unauthorised people must be prohibited. Jobseekers should not be allowed to gather around the construction site. The local SAPS must be allowed entry to site anytime, to monitor security and safety. 	INSIGNIFICANT	NEUTRAL
	Disruption and changes to the quality of living environment	Intrusion impacts such as noise and visual intrusion, and aesthetic impacts, resulting from emissions, movement of construction vehicles, earthworks, etc.; may cause a decrease in the quality of the physical environment for the	All alternatives, No Go alternative not applicable	Indirect	Negative	2	3	3	1	3	4	48	MEDIUM	<ul style="list-style-type: none"> The surrounding residents must be advised at construction commencement, and guided on how they could lodge 	LOW	NEUTRAL

THEME	IMPACT	IMPACT DESCRIPTION	ALTERNATIVE	TYPE	IMPACT SCORES							OVERALL SCORE	SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	RESIDUAL IMPACT	NO-GO SIGNIFICANCE
					NATURE	EXTENT	DURATION	MAGNITUDE	ILR	REVERSIBILITY	PROBABILITY					
CONSTRUCTION PHASE IMPACTS																
		surrounding residents, businesses, schools and other social facilities.												complaints when necessary. <ul style="list-style-type: none"> All dust suppressing techniques must be applied. All construction vehicles and equipment must be regularly serviced, to prevent the emission of air pollutants. 		

THEME	IMPACT AND IMPACT DESCRIPTION	ALTERNATIVE	TYPE	IMPACT SCORES							OVERALL SCORE	SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	RESIDUAL IMPACT	NO-GO SIGNIFICANCE	
				NATURE	EXTENT	DURATION	MAGNITUDE	ILR	REVERSIBILITY	PROBABILITY						
OPERATIONAL PHASE IMPACTS																
Demographic changes	Employment opportunities	The development is typically mixed use and includes facilities for businesses. This will result in employment opportunities, albeit fewer than the construction phase.	Preferred Alternative	Direct	Positive	3	5	2	0	1	4	44	MEDIUM	Local labour force must receive primary priority.	MEDIUM	LOW
Economic changes	Impacts on the local economy	<p>During the operation phase, the development may result in local economic opportunities for surrounding businesses. there will also be an opportunity for the establishment of new or expansion of existing businesses due to increased population in the area.</p> <p>The local municipality will benefit with the income from rates and taxes that will be collected from the developers.</p> <p>Though at a very low level, local businesses may benefit from the</p>	Preferred Alternative	Direct, indirect and cumulative	Positive	3	5	3	0	5	4	64	HIGH	Local businesses must receive primary priority, with fair opportunity for various business levels.	HIGH	LOW

THEME	IMPACT AND IMPACT DESCRIPTION	ALTERNATIVE	TYPE	IMPACT SCORES							OVERALL SCORE	SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	RESIDUAL IMPACT	NO-GO SIGNIFICANCE
				NATURE	EXTENT	DURATION	MAGNITUDE	ILR	REVERSIBILITY	PROBABILITY					
OPERATIONAL PHASE IMPACTS															
	supply of maintenance equipment.														

THEME	IMPACT AND IMPACT DESCRIPTION	ALTERNATIVE	TYPE	IMPACT SCORES							OVERALL SCORE	SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	RESIDUAL IMPACT	NO-GO SIGNIFICANCE	
				NATURE	EXTENT	DURATION	MAGNITUDE	ILR	REVERSIBILITY	PROBABILITY						
DECOMMISSIONING PHASE IMPACTS																
It is highly unlikely that the Arlington multiple-use development will be decommissioned in the next 25 - 30 years at a minimum. However, should the Development be decommissioned, the potential impacts would largely be the same as the impacts that were identified for the Construction Phase.																
Socio-cultural changes	Disruption in daily living and movement patterns	The decommissioning of the development will result in the disruption of daily living and movement patterns.	Preferred Alternative	Direct and indirect	Negative	1	5	1	0	1	4	32	LOW	<ul style="list-style-type: none"> The surrounding residents must be advised at commencement of decommissioning activities, and guided on how they could lodge complaints when necessary. All dust suppressing techniques must be applied. All construction vehicles and equipment must be regularly serviced, to prevent the emission of air pollutants. The developer should ensure that the decommissioning activities should cause minimum disruption to local communities. For example, traffic control measures must be put in place to reduce traffic impacts. If traffic uses dust roads, dust suppression measures must be implemented. 	LOW	LOW

THEME	IMPACT AND IMPACT DESCRIPTION		ALTERNATIVE	TYPE	IMPACT SCORES						OVERALL SCORE	SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	RESIDUAL IMPACT	NO-GO SIGNIFICANCE	
					NATURE	EXTENT	DURATION	MAGNITUDE	ILR	REVERSIBILITY						PROBABILITY
DECOMMISSIONING PHASE IMPACTS																
	Displacement of families	The decommissioning of the development will result in the displacement of families who occupied the residential area of the development.	Preferred Alternative		Negative	1	7	5	7	7	1	28	LOW	No mitigation	LOW	LOW
Economic changes	Employment opportunities	The decommissioning phase of the development will result in employment opportunities typical of those required in the construction phase.	Preferred Alternative	Direct and indirect	Positive	1	5	1	0	1	4	32	LOW	Local labour must be considered for semi and unskilled labourers.	MEDIUM	LOW
	Loss of employment opportunities	The decommissioning phase will also result in the loss of jobs from the businesses within the multiple-use development.			Negative	1	7	5	7	7	1	28	LOW	No mitigation	LOW	LOW

7. ASSUMPTIONS AND LIMITATIONS

It should be noted that the assessment of social impacts differs from identifying and measuring environmental impacts, for the following key reasons:

- The social impact of a development is not always measurable, and assessment thereto often entails a subjective dimension. Considering whether such an impact is positive or negative is also a value judgement in itself. Consequently, such impacts need to be informed by a clear understanding of the social processes and knowledge of the communities under study.
- Social impacts are often cumulative, clustered and interdependent.
- Social impacts are greatly influenced by public perceptions and intensity thereof could thus be altered as and when the receiving environment changes with development, when new policy guidelines are formed, or when stakeholders and other parties become desensitised towards changes in the social environment.
- Social impacts are dynamic, and can change when community dynamics and social processes change.
- Social impacts are often unintended and unavoidable, making them extremely difficult to mitigate. Therefore, mitigation measures need to be conceptualised as strategies of managing change, as opposed to entirely avoiding impacts. It is also expected that successful management of potentially negative impacts may even change the impacts from negative to positive.
- Social impacts are greatly influenced by public perceptions and intensity thereof could thus be altered as and when the receiving environment changes with development, when new policy guidelines are formed, or when stakeholders and other parties become desensitised towards changes in their social environment.

8. CONCLUSIONS AND RECOMMENDATIONS

Although some negative impacts have been identified in this report, they are significantly outweighed by the positive impacts associated with the proposed development. Negative impacts can be managed through the proper implementation of mitigations and the involvement of all affected parties from inception stages, prior commencement of construction.

In consideration of the fact that many of the socio-economic impacts cannot be prevented, management responses as opposed to preventative actions, are proposed to mitigate the severity of the negative impacts or to maintain and improve the positive impacts. Therefore, it is highly recommended that the management/enhancement measures provided in this report must be implemented and incorporated into the Environmental Management Programme of the EIA.

None of the impacts identified and assessed as part of this SIA are considered to be fatal flaws. The assessment revealed that all identified impacts can be mitigated, thus reducing the significance of the impacts. While the development may have short-term negative impacts, they are all outweighed by the positive long-term impacts. The development will significantly contribute to the development of the NMBM area, both socially and economically.

9. REFERENCES

Documents:

Barbour, T. 2007. Guideline for Involving Social Assessment Specialists in EIA Processes. [Online]. http://www.asapa.org.za/images/uploads/guideline_involving_social_assessment_specialists_eia_process.pdf

District Development Model: Profile and Analysis of Nelson Mandela Bay Municipality, 2020. Cooperative Governance and Traditional Affairs.

GoSA. 2007a. Guideline for Involving Social Assessment Specialists in EIA Processes. [Online]. http://www.asapa.org.za/images/uploads/guideline_involving_social_assessment_specialists_eia_process.pdf

IAIA – Social Impact Assessment: Guidance for Assessing and Managing the Social Impacts of Projects, 2015.

Integrated Development Plan 4th Edition (201/18 – 2021/22). Nelson Mandela Bay Municipality.

Integrated Development Plan 1st Edition (Draft) (2022/23 – 2026/27). Nelson Mandela Bay Municipality.

The State of Urban Safety in South Africa Report, 2021.

South African Police Service: Annual Report (2022/2023)

Spatial Development Framework, 2015. Nelson Mandela Bay Municipality.

Urban Edge Review Project incorporating Rural Land-use Management Policy and Urban Densification Guidelines (2007)

Websites:

www.localgovernment.co.za

www.nelsonmandelabay.gov.za

www.statssa.gov.za

www.wikipedia.org

www.medpages.info

www.nelsonmandelabay.gov.za

Consultations:

A social survey was distributed to the below list of stakeholders, surrounding landowners and Interested and Affected parties:

10. STAKEHOLDER AND I&AP DATABASE

COMPANY/DEPARTMENT	CONTACT PERSON	TELEPHONE	ADDRESS	EMAIL
GOVERNMENT OFFICIALS / ORGANS OF STATE				
Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (DEDEAT): Nelson Mandela Bay Region / Sarah Baartman District	Manager: EQM Andries Struwig	041 508 5800	Private Bag X5001, Greenacres, Port Elizabeth, 6057	[REDACTED]
	Regional Manager: Environmental Affairs Jeff Govender			[REDACTED]
	Senior Administrative Clerk: Charmaine Struwig			[REDACTED]
	Case Officer: Indira George			[REDACTED]
EC DEDEAT Waste Department	Chris Julius	[REDACTED]		[REDACTED]
EC DEDEAT Biodiversity Department	Luzuko Dali			[REDACTED]
Eastern Cape Provincial Heritage Resources Authority (ECPHRA)	ECPHRA: Acting Manager and Archaeologist - Ayanda Mncwabe-Mama	[REDACTED]	[REDACTED]	[REDACTED]
				[REDACTED]
				[REDACTED]
South African Heritage Resource Agency (SAHRA)	Clinton Jackson	[REDACTED]	[REDACTED]	[REDACTED]
Department of Water and Sanitation (DWS)	Hammond Visagie Ntombi Mpumela	[REDACTED] [REDACTED]	[REDACTED] [REDACTED]	[REDACTED] [REDACTED]
Department of Agriculture Forestry and Fisheries (DAFF)	Babalwa Layini	[REDACTED]	[REDACTED]	[REDACTED]
NMBM: Executive Mayor	Gary van Niekerk	[REDACTED]	[REDACTED]	[REDACTED]

COMPANY/DEPARTMENT	CONTACT PERSON	TELEPHONE	ADDRESS	EMAIL
NMBM: City Manager	Noxolo Nqwazi			[REDACTED] [REDACTED]
NMBM: Public Health directorate	Executive Director: Sizwe Mvunelwa (ED)	[REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED]
	Rosa Blaauw EMS Co-ordinator	[REDACTED] [REDACTED]	[REDACTED] [REDACTED]	[REDACTED] [REDACTED]
NMBM: Environmental Health directorate	Patrick Nodwele	[REDACTED] [REDACTED]	[REDACTED] [REDACTED]	[REDACTED] [REDACTED]
	Buyiswa Deliwe (Humani)	[REDACTED] [REDACTED]	[REDACTED] [REDACTED]	[REDACTED]
NMBM: Director - Infrastructure and engineering	J Tsatsire	[REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED]
NMBM: Waste management directorate	Annalisa Dyakala	[REDACTED] [REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED]	[REDACTED]
NMBM: Water and Sanitation directorate	Paul du Plessis	[REDACTED]	[REDACTED]	[REDACTED]
	Barry Martin	[REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED]	[REDACTED]
NMBM: Electricity and Energy directorate	Luvuyo Magalela	[REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED]
	Roark Prinsloo	[REDACTED] [REDACTED]		[REDACTED]

COMPANY/DEPARTMENT	CONTACT PERSON	TELEPHONE	ADDRESS	EMAIL
	Siseko Mnqanqeni	Siseko Mnqanqeni		[REDACTED]
NMBM: Roads, Stormwater and transportation directorate	Yussuf Gaffore	[REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED]
NMBM: Planning directorate and Land use Management	Owethu Pantshwa	[REDACTED] [REDACTED]		[REDACTED]
NMBM: Infrastructure & Engineering Directorate	Director Planning & Research Division: Laure Pieterse	[REDACTED]	[REDACTED]	[REDACTED]
NMBM Infrastructure & Engineering Directorate	Manager: Planning and Research Zoliswa Nyila			[REDACTED]
NMBM: Human Settlements	Tabiso Mfeya (ED)	[REDACTED]		[REDACTED]
NMBM Economic Development (Trade and Investment)	Lutho Nduvane	[REDACTED]		[REDACTED]
NMBM Beaches, Resorts & Events Management	Director: Kithi Ngesi			[REDACTED]
NMBM Economic Development, Tourism & Agriculture	Mpho Pebane			[REDACTED]
NMBM: Environmental Health (Air & Noise Pollution)	Manager: Buyiswa Deliwe Deputy Director: Patrick Nodwele			[REDACTED] [REDACTED]
Sports, Recreation, Arts and Culture (SRAC)	Acting Executive Director: Sport & Recreation - Bernadine Williams			[REDACTED]

COMPANY/DEPARTMENT	CONTACT PERSON	TELEPHONE	ADDRESS	EMAIL
Infrastructure and Engineering	Acting Deputy Director: Supply and Reservoirs: Mr. Chandré Barnard Acting Director: Water Management and Bulk Supply: Paul du Plessis			[REDACTED]
NMB Tourism			[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED]
NMBM Ward 1	Councillor Andre Van der Westhuizen		[REDACTED] [REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED]
NMBM Ward 3 (neighbouring ward)	Councillor David Hayselden			[REDACTED] [REDACTED]
NMBM Ward 4	Councillor Nozuko Mavis Mbambo			[REDACTED] [REDACTED]
NMB Ratepayers Association	Chairman: Kobus Gerber			[REDACTED] [REDACTED]
EC Department of Roads and Public Works / Department of Transport	Randall Moore	[REDACTED] [REDACTED]	[REDACTED] [REDACTED]	[REDACTED]
	Peter Lotter			[REDACTED]
Department of Rural Development and Land Reform	Ms Thabile Mehlokhulu	[REDACTED]	[REDACTED]	[REDACTED]
	Ms Nomfundo Mbewana		[REDACTED]	[REDACTED]
Eskom	Howard Bline	[REDACTED] [REDACTED]	[REDACTED] [REDACTED]	[REDACTED]

COMPANY/DEPARTMENT	CONTACT PERSON	TELEPHONE	ADDRESS	EMAIL
	Manager Environmental Management, Land Development and Environment: Angelina Shalang	[REDACTED]		[REDACTED]
	Environmental Officer: Zandi Siyongwana	[REDACTED] [REDACTED]		[REDACTED]
SA Civil Aviation Authority (SACAA)	Lizell Stroh	[REDACTED] [REDACTED]		[REDACTED]
Wildlife and Environmental Society of South Africa (WESSA)	Gary Koekemoer			[REDACTED]
BirdLife SA	Corne Erasmus			[REDACTED] [REDACTED] [REDACTED]
AFFECTED PROPERTIES (not owned by Applicant)				
Own Haven Housing Association - landowner of Erf 14639 and RE/1953	Managing Director - Andrew Wiseman			[REDACTED]
NMBMM – owner of Erf 1948	Acting Director: Properties and Planning Administration – Advocate Allister Jordan			[REDACTED]
NEIGHBOURING OR SURROUNDING PROPERTIES / DEVELOPERS				
Beau Monte Estate HoA	Peter Stockwell			[REDACTED]
Welbedacht Estate HoA	Nola			[REDACTED]
Milkwood Manor	Paul Myburgh	[REDACTED]		[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]		[REDACTED]
Ryton Glen HoA	Dave Pendrigh	[REDACTED]		[REDACTED]
Milkwood Social Housing	Ramiro Naidoo	[REDACTED]		[REDACTED] [REDACTED]

COMPANY/DEPARTMENT	CONTACT PERSON	TELEPHONE	ADDRESS	EMAIL
				████████████████████ ██████████████████
Sardinia Bay Nature Conservancy	Jenny Callahan			██████████████
Nelson Mandela University Game Reserve				██████████████████
Glendore Sand and Stone				██████████████████
Airports Company SA	Louhn Kuhn	██████████ ██████████		██████████████████ ██████████████████
Animal Welfare Society PE				██████████████████
Eastern Cape Horse Care Unit				██████████████████
Smartstone				██████████████████
Victory Raceway	Maggie Victor	██████████		██████████████████
Port Elizabeth Airport – Manager Operational Services	Selvin Meyer	██████████		██████████████████
REGISTERED I&APs				
Walmer Heights Resident	Nqaba Bhanga	██████████		██████████████████
Weymouth Place Property Owner	Paul Robinson			██████████████████
Weymouth Place Chairman	Michael Bilbury			██████████████████
Walmer Heights Resident	Conrad Bekker			██████████████████
Beethoven Avenue WhatsApp Group & Homeowner – 40 Beethoven Ave	Wendy Ridge	██████████		██████████████████
Beethoven Avenue Homeowner – 42 Beethoven Ave	Gavin Ridge	██████████		██████████████████

COMPANY/DEPARTMENT	CONTACT PERSON	TELEPHONE	ADDRESS	EMAIL
Resident – 102 Beethoven Avenue	Wilfred			[REDACTED]
Leads2Business - Regional Content Researcher Projects	Shanelle Naidoo	[REDACTED]		[REDACTED]
Walmer Heights Resident	Tarn Derman	[REDACTED] [REDACTED]		[REDACTED]
Resident Walmer Heights	Fiona Richard			[REDACTED]
Schoenmakerskop Ratepayers Association	Comine Gierz	[REDACTED]		[REDACTED]
Glendore Road – Resident	Simon Clark			[REDACTED]
Walmer Heights – Resident	Klaus Heimes	[REDACTED]		[REDACTED]
Walmer Heights – Home Owner	Wendy Ridge	[REDACTED]		[REDACTED]
Walmer Heights – Home Owner	Gavin Ridge	[REDACTED]		[REDACTED]
	Emily Whitfield			[REDACTED]
Beethoven Avenue - Resident	Alan Moore	[REDACTED]		a [REDACTED]
Weymouth Place – Resident & Property Owner	Paul De Vantier	[REDACTED] [REDACTED]		[REDACTED]
	Dave Richings	[REDACTED]		[REDACTED]
Miramar Resident	George Scott	[REDACTED]	[REDACTED]	[REDACTED]
Beethoven Avenue - Resident	Bev Larkin	[REDACTED]	[REDACTED]	[REDACTED]
Beethoven Avenue - Resident	Lucretia Meko	[REDACTED]	[REDACTED]	[REDACTED]
Beethoven Avenue - Resident	Dimitri Maritz	[REDACTED]	[REDACTED]	[REDACTED]
Idylwylde Crescent - Resident	Dave Pederson	[REDACTED]	[REDACTED]	[REDACTED]
Beethoven Avenue - Resident	Gerald Schnablegger	[REDACTED]	[REDACTED]	[REDACTED]
Beethoven Avenue - Resident	Tony Orrey	[REDACTED]	[REDACTED]	[REDACTED]
Beethoven Avenue - Resident	Janine Lee	[REDACTED]	[REDACTED]	[REDACTED]
Beethoven Avenue - Resident	Herman Fourie	[REDACTED]	[REDACTED]	[REDACTED]

COMPANY/DEPARTMENT	CONTACT PERSON	TELEPHONE	ADDRESS	EMAIL
Schubert Street - Resident	Annette Neuschafer	[REDACTED]	[REDACTED]et	[REDACTED]
Beethoven Avenue - Resident	Siphiwo Ntengu	[REDACTED]	[REDACTED]	[REDACTED]
Beethoven Avenue - Resident	Alan Moore	[REDACTED]	[REDACTED]	[REDACTED]
Ravel Road - Resident	Noel Harvey	[REDACTED]	[REDACTED]	[REDACTED]
Beethoven Avenue - Resident	Bores Bosman	[REDACTED]	[REDACTED]	[REDACTED]
Beethoven Avenue - Resident	Rene Eyman	[REDACTED]	[REDACTED]	[REDACTED]
Beethoven Avenue - Resident	Samantha Millard-Nelson	[REDACTED]	[REDACTED]	[REDACTED]
Beethoven Avenue - Resident	Adrian van der Walt	[REDACTED]	[REDACTED]	[REDACTED]
Genadendal Road - Resident	Jeffrey Fry	[REDACTED]	[REDACTED]	[REDACTED]

11. COMPLETED SIA QUESTIONNAIRES

GLEN STEVENS – LOCAL RESIDENT

3. SOCIAL SURVEY

RESPONDENT (tick below the relevant box)	LAND OWNER	BUSINESS	LOCAL RESIDENT
	✓		✓
NAME & SURNAME	RES/POSTAL ADDRESS	EMAIL ADDRESS	CONTACT DETAILS
E. OPREY	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED]	[REDACTED]

HOUSEHOLD DYNAMICS

Please describe the type of home you live in. (i.e. stand-alone house or flat; owned or rented).
Stand-Alone Home

How many people currently live in your household, including yourself?
3

What is the primary language spoken?
English

What is your highest level of education? i.e. no matric, matric, college or university qualification.
University Honours Degree

Are you employed? Part time or full time? (Elaborate)
Part-time (Book Keeper)

Who earns an income to support your family?
Husband + Wife

SOCIO-ECONOMIC DYNAMICS

EDUCATION

How would you describe the community members' educational status in your area?
Good. Mostly professional or retired people.

Is there a primary and secondary school in your area? Please name them.
Not in the immediate area.
Priory in Miramar DF Matherbe in Walmer

Are there any learners that reside in your area but attend school in other areas? If so, what would you say is the reason for this?
Yes = Insufficient schools.

How do the learners residing in your area get to school?	Car , bus
Do you think there are enough schools in your area?	NO
What would you say are the most critical challenges facing education in your area?	Insufficient schools to meet demand. No development of education on the part of government. Private schooling EXPENSIVE.
INCOME	
Based on your understanding, what are the most common income streams in your area?	Business, industry, manufacturing, education
EMPLOYMENT	
How would you describe the employment rate and profile in your area?	Most people employed or retired.
Has there ever been any conflict over employment opportunities in your area, and what were the reasons for the conflict?	Not aware of any.
Is there a regular influx of job-seekers into your area during the year? (Elaborate)	No not really. Casual labour does walk through area towards Walmer looking for work.
SAFETY	
How would you describe the crime rate in your area?	Medium to low.
What is your approach in dealing with criminal activities within your area?	Pay for security and instal own security systems.
How far and accessible is the closest police station from your area?	Main road Walmer ± 25 min away. Seldom visible in area.
Is there are community police forum within the project area?	Yes but very small.
Are there any community/civic organisations within the project area? E.g. Ratepayers association. (Please list them)	Church
How do you think the potential increase in traffic resulting from the proposed project will affect your area?	Major. Beethove Avenue will see increased traffic.
How do you think the proposed project will affect the current condition of the roads in your area?	Will affect roads. More potholes.
RECREATIONAL FACILITIES AND ORGANISATIONS	

What recreational activities are available to the youth in your area? (Elaborate)	Not much. Paintball I think on Glendore Rd and Church youth group at Vineyard Church.
Are there any recreational facilities in your area? E.g. Community Parks.	Yes there are community parks.
How do you think the proposed project will affect the recreational facilities?	Will not really affect them as development is further away and the facilities are very limited in the immediate area.
HEALTH SERVICES	
Is there a health facility (clinic and/or hospital) located within your area? If not, how far is the nearest health facility?	Yes = Mediroos and Intercare 4km radius
What are the most common communicable diseases in your area?	General flu.
SOCIAL SERVICES	
How reliable is electricity supply in your area?	Good besides the regular loadshedding.
Do you have access to any renewable energy sources? Please elaborate	No
How reliable is water supply in your area?	Good
How would you describe the quality of water in your area?	Varies
How regular and reliable is the waste collection service? Are there any recycling initiatives in your area?	Once per week. Reliable. Recycling depot @ Vineyard Church
What is your form of household sanitation? E.g. inhouse flushable toilets.	Inhouse flushable toilets
How would you describe the quality of sewerage collection and treatment in your area?	Good but does become overloaded at times. Often sewerage blockages at corner of Sibulus and Schubert Avenues.
What would you consider to be the greatest service requirement in your area?	Upgrade ageing sewerage lines.
THE PROJECT	
Do you have any expectations about the proposed project?	Wow it is large. Mass influx of people, activity
Do you have any concerns about the proposed project?	Yes, where are all the

Children going to be educated! Both junior and high schools needed.

If authorised, how do you think the project will positively and/or negatively affect the residents and the business sector of the area?

Development in a structured nature not a bad thing.

Hope surrounding infrastructure can cope with influx of homes and businesses. Will there be work for all the people?

THE END, THANK YOU FOR YOUR INPUT!

E ORREY – LANDOWNER AND LOCAL RESIDENT

RESPONDENT (tick below the relevant box)	LAND OWNER	BUSINESS	LOCAL RESIDENT
			✓
NAME & SURNAME	RES/POSTAL ADDRESS	EMAIL ADDRESS	CONTACT DETAILS
Glen Stevens	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED]	[REDACTED]
HOUSEHOLD DYNAMICS			
Please describe the type of home you live in. (i.e. stand-alone house or flat; owned or rented).			
Stand alone house			
How many people currently live in your household, including yourself?			
4			
What is the primary language spoken?			
English			
What is your highest level of education? i.e. no matric, matric, college or university qualification.			
University Qualification			
Are you employed? Part time or full time? (Elaborate)			
Full time employed			
Who earns an income to support your family?			
Me.			
SOCIO-ECONOMIC DYNAMICS			
EDUCATION			
How would you describe the community members' educational status in your area?			
Matric and above			
Is there a primary and secondary school in your area? Please name them.			
Mount Pleasant Primary			
Are there any learners that reside in your area but attend school in other areas? If so, what would you say is the reason for this?			
Better school in Walmer			

How do the learners residing in your area get to school? <i>Car</i>
Do you think there are enough schools in your area? <i>yes</i>
What would you say are the most critical challenges facing education in your area? <i>Quality of teachers</i>
INCOME
Based on your understanding, what are the most common income streams in your area? <i>Full time employees & business owners</i>
EMPLOYMENT
How would you describe the employment rate and profile in your area? <i>Seems to be good</i>
Has there ever been any conflict over employment opportunities in your area, and what were the reasons for the conflict? <i>Not that I know of</i>
Is there a regular influx of job-seekers into your area during the year? (Elaborate) <i>No</i>
SAFETY
How would you describe the crime rate in your area? <i>Getting worse</i>
What is your approach in dealing with criminal activities within your area? <i>Atlas</i>
How far and accessible is the closest police station from your area? <i>Walmer</i>
Is there a community police forum within the project area? <i>Not that I know of</i>
Are there any community/civic organisations within the project area? E.g. Ratepayers association. (Please list them) <i>I don't know</i>
How do you think the potential increase in traffic resulting from the proposed project will affect your area? <i>I am concerned regarding additional traffic & potential crime</i>
How do you think the proposed project will affect the current condition of the roads in your area? <i>Glendore Road condition is a concern</i>
RECREATIONAL FACILITIES AND ORGANISATIONS

What recreational activities are available to the youth in your area? (Elaborate)	<i>There are a few parks</i>
Are there any recreational facilities in your area? E.g. Community Parks.	<i>Yes</i>
How do you think the proposed project will affect the recreational facilities?	<i>Not sure</i>
HEALTH SERVICES	
Is there a health facility (clinic and/or hospital) located within your area? If not, how far is the nearest health facility?	<i>Medicross Minimar</i>
What are the most common communicable diseases in your area?	<i>Don't know</i>
SOCIAL SERVICES	
How reliable is electricity supply in your area?	<i>Good</i>
Do you have access to any renewable energy sources? Please elaborate	<i>Yes, solar</i>
How reliable is water supply in your area?	<i>Good</i>
How would you describe the quality of water in your area?	<i>Good</i>
How regular and reliable is the waste collection service? Are there any recycling initiatives in your area?	<i>Very Good</i>
What is your form of household sanitation? E.g. inhouse flushable toilets.	
How would you describe the quality of sewerage collection and treatment in your area?	<i>Good</i>
What would you consider to be the greatest service requirement in your area?	<i>Road maintenance</i>
THE PROJECT	
Do you have any expectations about the proposed project?	<i>I am worried about the impact it will have on the value of my home</i>
Do you have any concerns about the proposed project?	

Worried about the value of my home being impacted

If authorised, how do you think the project will positively and/or negatively affect the residents and the business sector of the area? It depends on what type of housing is going up. If it is low income housing then I am very concerned.

THE END, THANK YOU FOR YOUR INPUT!

12. APPENDIX A - IMPACT ASSESSMENT METHODOLOGY

IMPACT ASSESSMENT METHODOLOGY

Impacts identified were assessed according to the criteria outlined below. Each impact was ranked according to the nature, extent, duration, magnitude, probability, irreplaceable loss of resources and reversibility. These criteria are based on the Department of Environmental Affairs (DEA) Guideline Document to the EIA Regulations (1998). A significance rating was calculated as per the methodology outlined below.

The significance rating of each identified impact / effect was further reviewed by the EAP and/or specialist(s) by applying professional judgement. Where possible, mitigation measures were recommended for the impacts identified.

NATURE OF THE IMPACT		
The environmental impacts of an activity are those resultant changes in environmental parameters, in space and time, compared with what would have happened had the activity not been undertaken. It is an appraisal of the type of effect the activity would have on the affected environmental parameter. Its description includes what is being affected, and how	Negative effect (i.e. at a cost to the environment) (-)	
	Positive effect (i.e. a benefit to the environment) (+)	
	Neutral effect on the environment – No impact	
EXTENT OF THE IMPACT		
This addresses the physical and spatial scale of the impact.	Site – The impact area extends only as far as the activity – i.e. within the boundaries of the development site.	1
	Local - The impacted area extends slightly further than the actual physical disturbance footprint and could affect the whole, or a measurable portion of adjacent areas (within approx. 5 km of the boundaries of the development site), that may be linked to the site in terms of ecosystem functioning.	2
	Regional - The impact could affect the site including the neighbouring areas, transport routes and surrounding towns etc.	3
	National - The impacted area extends beyond provincial boundaries.	4
	International - The impacted area extends beyond national boundaries.	5
DURATION OF IMPACT		
This describes the predicted lifetime / temporal scale of the predicted impact.	Short term - Quickly reversible. Less than the project lifespan. The impact will either disappear with mitigation or will be mitigated through natural process in a span shorter than any of the project phases or within 0 -5 years.	1
	Medium term – Some mitigation will be required to reduce the duration of the impact – 6-15 years.	3
	Long term - the impact will cease when the operation stops.	5
	Permanent - no mitigation measure will reduce the impact after construction.	7
MAGNITUDE OF THE IMPACT		

This provides a qualitative assessment of the severity of a predicted impact / effect.	None - where the aspect will have no impact on the environment	0
	Minor - The affected environment is altered, but natural function and processes continue.	1
	Low - where the impact affects the environment in such a way that the natural, cultural and/or social functions / processes are slightly affected.	2
	Moderate - where the affected environment is altered but natural, cultural and/or social functions / processes continue, albeit in a modified way.	3
	High - natural, cultural and/or social functions / processes are altered to the extent that they will temporarily cease.	4
	Very High - natural, cultural and/or social functions / processes are altered to the extent that they will permanently cease.	5
PROBABILITY OF OCCURRENCE		
The likelihood of the impact actually occurring.	Remote possibility / unlikely	0
	Possibility	1
	Low probability / anticipated	2
	Medium probability / strongly anticipated	3
	High probability / to be expected	4
	Absolute certainty / will occur	5
IRREPLACEABLE LOSS OF RESOURCES		
Environmental resources cannot always be replaced; once destroyed, some may be lost forever. It may be possible to replace, compensate for or reconstruct a lost resource in some cases, but substitutions are rarely ideal. The loss of a resource may become more serious later, and the assessment must take this into account.	Short-term – Quickly recoverable. Less than the project lifespan. The resource can be renewed / recovered with mitigation or will be mitigated through natural process in a span shorter than any of the project phases, or in a time span of 0 to 5 years.	1
	Loss of an 'expendable' resource - one that is not deemed critical for biodiversity targets, planning goals, community welfare, agricultural production, or other criteria.	2
	Medium term – The resource can be recovered within the lifespan of the project. The resource can be renewed / recovered with mitigation or will be mitigated through natural process in a span between 5 and 15 years.	3
	Loss of an 'at risk' resource - one that is not deemed critical for biodiversity targets, planning goals, community welfare, agricultural production, or other criteria, but cumulative effects may render such loss as significant.	4
	Long term – The loss of a non-renewable / threatened resource which cannot be renewed / recovered with, or through, natural process in a time span of over 15 years, but can be mitigated by other means.	5
	Permanent – The loss of a non-renewable / threatened resource which cannot be renewed /	7

	recovered with, or through, natural process in a time span of over 15 years, or by artificial means.	
REVERSIBILITY / POTENTIAL FOR REHABILITATION		
The distinction between reversible and irreversible impacts is a very important one and the irreversible impacts not susceptible to mitigation can constitute significant impacts in an EIA (Glasson et al, 1999). The potential for rehabilitation is the major determinant factor when considering the temporal scale of most predicted impacts.	Short term – The impact / effect will be returned to its benchmark state through mitigation or natural processes in a span shorter than any of the phases of the project, or in a time span of 0 to 5 years.	1
	Medium term – The impact / effect will be returned to its benchmark state through mitigation or natural processes in a span shorter than the lifetime of the project, or in a time span between 5 and 15 years.	3
	Long term - The impact / effect will be returned to its benchmark state through extensive mitigation or natural processes in a time span between 15 and 25 years.	5
	Permanent – The impact/ effect is permanent and will never be returned to is benchmark state	7
IMPACT SIGNIFICANCE		
The overall significance of an impact / effect has been ascertained by attributing numerical ratings to each identified impact. The numerical scores obtained for each identified impact have been multiplied by the probability of the impact occurring before and after mitigation. High values suggest that a predicted impact / effect is more significant, whilst low values suggest that a predicted impact / effect is less significant.		
<i>((Spatial Extent + Severity + Duration + Resource Lost + Reversibility) * Probability) = Significance</i>		
NEGATIVE	POSITIVE	Overall Score
Insignificant – the impact is meaningless has no influence on the decision to develop	Insignificant – the impact is meaningless has no influence on the decision to develop	< 15
Low – the impact would not have a direct influence on the decision to develop in the area;	Low – the impact would not have a direct influence on the decision to develop in the area;	16 - 35
Medium – the impact could influence the decision to develop in the area unless it is effectively managed / mitigated; and	Medium – the impact could influence the decision to develop in the area unless it is effectively managed / mitigated; and	36 - 65
High - the impact must have an influence on the decision-making process for development in the area.	High - the impact must have an influence on the decision-making process for development in the area.	> 65
MITIGATION		
In terms of the assessment process the potential to mitigate the negative impacts is determined and rated for each identified impact and mitigation objectives that would result in a measurable reduction or enhancement of the impact are taken into account. The significance of environmental impacts has therefore been assessed taking into account any proposed mitigation measures. The significance of the impact "without mitigation" is therefore the prime determinant of the nature and degree of mitigation required.		

13. APPENDIX B – PROJECT TEAM CV's

Details of the specialist team:

Ms Nande Suka (EAPASA; Pr.Sci.Nat.; MIWMSA; IAIAAsa) commenced her career as an Environmental Assessment Practitioner in January 2012. To date, she has over 10 years' experience in the environmental consulting fraternity. Her wealth of experience and knowledge was acquired while employed as an environmental consultant at Coastal & Environmental Services (Pty) Ltd in East London, where she served from year 2012 to 2020 when she left the employ as a Senior Environmental Consultant and Office Manager of the company's East London Branch.

She obtained her highest qualification, Bachelor of Science (Honours) in Biological Science (with core coursework on Integrated Environmental Management, Environmental Management Procedures, Ecology and Conservation Biology) from the Nelson Mandela Metropolitan University in 2011. She also completed the Introduction to Environmental Impact Assessment Procedures short course facilitated by Coastal & Environmental Services in conjunction with Rhodes University, and various training courses on Integrated Waste Management and Waste Management Legislation, with the Institute of Waste Management South Africa (IWMSA). She is professionally registered as an Environmental Assessment Practitioner (EAP) with EAPASA and also a registered environmental scientist with SACNASP.

Nande has a well-rounded background and expertise in various disciplines including, but not limited to; Environmental Impact Assessments, Environmental Management Plans/Programmes, Integrated Waste Management Planning, Environmental Sensitivity and Feasibility Assessments, Water and Waste Licensing, Public Participation and Stakeholder Engagement, Social Facilitation and Baseline Social Assessments, Environmental Compliance Monitoring and Auditing, and overall Project Management (technical and financial). She has managed small to large scale projects within various industries such as waste, water, housing, industrial, tourism; within both the private and public sectors (i.e. national, provincial and local government spheres). She has been involved in multidisciplinary developments including but not limited to structural and infrastructural (i.e. bridges, roads, pipelines, landfills, cemeteries, water and wastewater treatment plants, etc.), residential, mixed use, commercial, industrial and agricultural. She has also been involved in the development and management of numerous planning projects for local and district municipalities, such as Integrated Waste Management Plans and Environmental Management Frameworks, which renders her well conversant with the integrated development planning process of municipalities.

Nande is also affiliated with the International Association for Impact Assessment South Africa (IAIAAsa) and the Institute of Waste Management of Southern Africa (IWMSA).

Mr Mc Donald Mdhuli (EAPASA; Cert.Sci.Nat.; IAIAAsa) is an Environmentalist and Social facilitator with over 12 years' experience. He has an interest in various Environmental Management spectrums that range from Environmental Impact Assessment (EIA), Integrated Environmental Management (IEM), Social Impact Assessment (SIA), and others. He currently holds a Postgrad Diploma in Social Impact Assessment, BSc Honours in Environmental Management and Bachelor's degree in Environmental Sciences respectively.

Mc Donald also has a special interest in Heritage Management; thus, he is currently reading for BSc Honours in Archaeology to become a professional archaeologist. He was involved in various

archaeology projects during his undergrad studies which includes participating in the Heritage Impact Assessment for Coal of Africa, Musina in 2009 and excavations for the Mapungubwe Cultural Landscape in Mapungubwe World Heritage site in 2009 and 2010 respectively. McDonald worked for the Department of Mineral Resources as an Assistant Director, within the Sub-Directorate: Mine Environmental Management, where he was responsible for evaluating mining applications for environmental authorization.

Mc Donald is currently registered as an Environmental Assessment Practitioner (EAP) with the Environmental Assessment Practitioners of South Africa (EAPASA) – [REDACTED] and as a Certificated Natural Scientist (Cert.Sci.Nat [REDACTED]) with the South African Council for Natural and Scientific Professions (SACNASP) and with the International Association for Impact Assessment South Africa (IAIAsa. [REDACTED])

Please refer to attached CVs for detailed information on the specialist' team.