

*Chapter 8:*  
**Impact on the Socio-Economic  
Environment**

## ***Impact on the Socio-Economic Environment***

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## 8. IMPACT ON THE SOCIO-ECONOMIC ENVIRONMENT

*This chapter is based on the specialist study prepared by Mr Johan van der Walt of Ntshebe Consulting: Socio-Environmental and Development Consultants, based in Westville, South Africa (van der Walt, 2006).*

### 8.1 Introduction

#### 8.1.1 Scope of work

The terms of reference provided by the CSIR for the Social Impact Assessment (SIA) that was conducted as part of this EIA process required that the SIA investigate any significant social impacts arising from activities associated with the construction and operational processes of the proposed project. Particular attention is paid to:

- Effects on users of coastal waters (eg. fishermen, recreational sports, and marine traffic).
- Effects on marine and coastal ecotourism.

The study includes the following:

- An outline of the study approach, and identification of assumptions and sources of information.
- A description of the affected environment, and its sensitivity in terms of the study.
- Identification of any critical gaps in the information upon which the specialist study is based.
- Quantification, wherever possible, of the potential environmental effects.
- An assessment of impacts during all phases of the development: site preparation and construction, operation, closure, and rehabilitation, as well as statements relating to the Level of Confidence in the specialist analysis.
- An assessment of the impacts with and without mitigation.

The standard assessment conventions used in the socio-economic assessment are presented in Chapter 4 of this report.

#### 8.1.2 Methodology

In order to fulfil the scope of work, a range of methodologies was utilised. Qualitative, secondary, and primary research was undertaken.

Secondary research included:

- Desktop analysis and literature review. (A substantial amount of recent literature on the NMMM, Coega Industrial Development Zone (IDZ), and the Port was used for desktop

analyses and literature reviews).

- Continuous exchange of information with other specialist study personnel.

Primary research involved the collection of both qualitative and quantitative information on site or telephonically, and constituted:

- Site visit to gain an understanding of the receiving environment.
- Key informant interviews (both structured and unstructured) to gain an in-depth understanding of the issues associated with the proposed project.

## 8.2 Description of the project

*An over-arching description of the proposed project is provided in Chapter 2. This section provides additional project information specific to the socio-economic impact assessment.*

### 8.2.1 Employment during construction

According to tenders received by Transnet for the construction of Phase 2 (i.e. for completion of tasks already approved in terms of existing RODs), peak manpower required will be approximately 700 to 800 people. It can be assumed that a similar number of people will be required for Phase 2 and the Administration Craft Basin. This will equate to approximately 1,600 jobs over the 36 month construction period for the two phases. According to CPHMG the labour force may grow beyond what was initially anticipated, by approximately 20%. It can, therefore, be assumed that approximately 840 to 960 jobs will be available during the Phase 2 construction.

In each of the Phases, the peak labour requirement will run over a period of approximately four months. The anticipated division between personnel levels are outlined in Table 8.1.

*Table 8.1: Anticipated construction labour requirements*

<b>Personnel level</b>	<b>Anticipated number (range)</b>		<b>Percentage of total</b>
	<b>840</b>	<b>960</b>	
Managerial and administrative	42	48	5%
Skilled labour <sup>1</sup>	210	240	25%
Semi-skilled, unskilled <sup>2</sup>	588	672	70%

<sup>1</sup> Expected to be 'core staff' of the construction contractors, usually from outside the NMMM.

<sup>2</sup> To be employed locally on a contract basis.

### **8.2.2 Employment during operations**

During operations, the nature of the terminal operations will require highly skilled operators and staff. It is estimated that the manning levels of the two new berths would be in the order of 320 people out of a total approximately 960 employees, when the overall terminal is operating at full design capacity.

For the operation of the administration craft basin, the marine operations team would be established during the completion of Phase 1 of the project, and start operating from temporary facilities within the Port or supported from the Port of Port Elizabeth. A small number of between 20 and 30 skilled people would be required for this purpose, but would form part of the overall Port operation requirement of 100 to 200 people.

### **8.2.3 Shift arrangements**

Generally, all labour will work a 45 hour week with a certain amount of overtime when required, up to a maximum permissible overtime of 10 hours per week. Shift arrangements may be structured where continuous processes are required such as concrete pours or concrete slides, and formwork. This may result in the introduction of a two or three shift system when required. The number of employees involved in such shifts will vary according to the requirements of the activities to be performed, but is estimated not to be more than 50 to 60 people per shift.

### **8.2.4 Training**

Basic pre-employment training will be provided to primarily local unskilled and semi-skilled labour. This is anticipated to cover health and safety awareness, the use of basic hand tools, and possibly basic construction skills in the disciplines of steel fixing and preparation of shuttering. During construction, contractors will be expected to provide on-the-job-training to local employees through mentors, including on-going assessments of skills acquired, in order to elevate employees to higher categories of employment and associated higher earnings. In addition, the Coega Development Corporation (CDC) has introduced a human resources development programme, in association with the Department of Labour and the respective SETA's, whereby the Contractors will be expected to undertake learnerships and skills programmes for the development of local employees through accredited training service providers (Section 8.4).

### **8.2.5 Suppliers and SMEs**

The CDC has developed an extensive database of local vendors and suppliers, including SME's and emerging Contractors, through its Labour Management Service (LMS) (Section 8.4). The project proponent has indicated that efforts will be made to maximize the participation of local businesses and contractors in the project, through either structured, smaller construction packages according to capacity and capability to deliver, or alternatively, through the facilitation of joint ventures or partnerships with larger contractors.

### **8.2.6 Labour relations**

According to the proponent, all Contractors will be encouraged to utilise the labour services of the CDC for the recruitment of local labour. In addition, all contractors will be contractually bound to comply with the industrial relations framework and Zone Labour Agreement (ZLA) that is binding within the Coega IDZ (Section 8.4). This is primarily to ensure that common and consistent standards are implemented with regard to labour, and that the risks associated with disparate employment conditions and benefits are effectively mitigated.

### **8.2.7 Construction camps**

All skilled labour from outside the NMMM will be required to reside in the construction village (also known as Coega Village) situated at Wells Estate. All labour will receive lunch-packs on a daily basis. Transport of labour to and from the workplace from designated pick-up points will be provided through the NMMM Transport Forum, and effectively co-ordinated.

### **8.2.8 Health and safety**

All employees will receive pre and post-employment medical check-ups which will serve as baseline and monitoring system for any illness or injury which may be contracted during the period of service.

The CDC has developed a comprehensive HIV/Aids Policy and an HIV/Aids Awareness Programme that is implemented on all construction-related activities within the Coega IDZ. The proponent has indicated that it will latch its own programme onto these existing programmes.

Emergency First Aid facilities will be available on the site and in the construction village to treat minor injuries and ailments. Major injuries will be need to be referred to Provincial or private hospitals in the NMMM.

### **8.2.9 Transport of people, equipment and material**

According to the Transport and Traffic Specialist, during peak construction, and taking into account the overlap between Phase 1 and Phase 2 construction, an estimated 25 buses will be required to transport construction workers to the Port site. Based on the shift arrangements outlined in Section 2.5, these vehicles will approach and leave the site during peak hours, i.e. 06:30 to 07:30, and 16:30 to 17:30. It is also anticipated that there would be in the order of 100 private vehicles, i.e. cars, bakkies, and minibuses, arriving at the site during an approximate two hour period in the morning and leaving during a two hour period in the afternoon. Both these time windows fall around the peak hours (R. Bowman, Personal Communication).

For the delivery of construction material, it is estimated that there would be approximately 105 truck movements (inbound) per day, spread out over the working day. On these, 15 will arrive from Port Elizabeth via the N2, delivering cement. A further 25 trucks per day will bring armour

rock from the commercial quarry in the vicinity of Coega Kop, along Neptune Road. The remainder will bring aggregate from the same quarry, along the same route. The vehicles coming from the quarry will, therefore, not have to travel on any national, provincial, or local roads, other than those within the IDZ (R. Bowman, Personal Communication).

The Traffic and Transport Specialist has allowed for an additional 60 truck movements per day, which will include the delivery of, *inter alia*, infrastructure equipment, other amenities, maintenance, and inspections. These would also be spread evenly during the working day.

All abnormal loads of ship-to-shore cranes are expected to be brought in by ship to the site.

During operations it is anticipated that approximately 50% of personnel will travel to the Port by private vehicle on a daily basis. At an average of 1.5 people per vehicle, it implies 100 vehicles arriving at the Port during peak times in the morning and leaving at peak times in the afternoon. The remaining 150 people are assumed to be arriving at the Port by minibus taxi. At 15 people per vehicle, this assumes 10 vehicles arriving in the morning for drop-off, leaving the Port, and returning in the afternoon for pick-up (R. Bowman, Personal Communication).

The 2015 target number of TEUs to be transported by road per year includes calculates to 180 container trucks per hour. The road capacity of the N2 and the entrance road to the Port is 4,000 vehicles per hour per direction. The roads will, therefore, easily handle the additional traffic (R. Bowman, Personal Communication).

## 8.3 Description of the social and socio-economic environments

### 8.3.1 Geographical description

The study area comprises the Nelson Mandela Metropolitan Municipality, which includes the City of Port Elizabeth, the adjacent towns of Uitenhage and Despatch, as well as surrounding and outlying settlements. Its boundaries, incorporating seven local authorities, stretch from the Sundays River, to the north of Uitenhage, to the Van Stadens River mouth.

The area is included in the Fish River Spatial Development Initiative (SDI), which is one of three SDIs in the Eastern Cape. The other two are the Buffalo River SDI and Wild Coast SDI, which are located to the north of the Fish River SDI.

It is in this context that the Coega Industrial Development Zone was formally designated as an IDZ by Cabinet in December 2001 (Government Gazette, December 2001). It is located on the north-east coastline of Madiba Bay, approximately 20 km from the City of Port Elizabeth. The Coega (Ngqura) Port is located within the IDZ. The total area of the IDZ is expected to be 12,000 ha (Coastal and Environmental Services: 2000).

Settlements in close proximity to the IDZ include Colchester, Cannonville, Motherwell, Ibhayi, Amsterdamhoek, and the areas referred to as "Port Elizabeth rural" by the Municipal

Demarcation Board in the SA Explorer Version 1 of 2000 (SA Explorer: 2000). However, Motherwell is likely to experience the most direct socio-economic impacts, as it is the closest to the IDZ. For this reason, specific reference is made to Motherwell throughout this description of the environment.

### **8.3.2 Demographics**

#### **8.3.2.1 Population statistics**

##### **8.3.2.1.1 Nelson Mandela Metropolitan Municipality**

The NMMM total population is estimated to be 1.3 million, which makes up approximately 2.5 % of the country's population. Historically, the population growth of the NMMM has been approximately 2.8% per annum. However, according to the NMMM Integrated Development Plan (IDP), with the impact of HIV/AIDS, this population growth rate is likely to be reduced to 1.9%. By 2010, it is estimated that this area will have a population of 1.5 million (NMMM IDP: 2005).

There are approximately 265,099 households within the NMMM (NMMM IDP: 2005). According to the 2001 census data ([www.demarcation.org.za](http://www.demarcation.org.za)), 75.2% of the households can be considered as formal, 22.9% as informal, 1.6% as traditional, and 0.3% are classified as other.

Out of the total municipal population, 52% are female and 48% are male. Approximately 37% of the population is under the age of 20, indicating the importance of issues such as education and job creation (NMMM IDP: 2005).

##### **8.3.2.1.2 Motherwell**

The figure for the total population of Motherwell varies depending on the source. According to the 2001 census data, there were 130,000 people living in Motherwell, whereas a Socio-economic Study conducted in 2001 as part of the Motherwell Urban Renewal Programme (MURP), estimated the total population at 360,000. However, from discussions with the Local Municipal Councillor, (Mabese, A. Personal Communication), even the latter appears to be an understated estimate. Councillor Mabese indicated that, since the announcement of the Coega IDZ, there has been steadily increasing in-migration into the Motherwell area in particular. He further indicated from his own observations, that with each new IDZ project announcement, there appears to be a slight increase in in-migration. About 52.5% of the population in Motherwell live in households comprising between four and six members. In Neighbourhood Units (NU) such as NU10 and 11 where a large percentage of the population lives in informal dwellings, the household size is on average between seven and nine members (MURP: 2005).

Housing pressure, exerted not only by the increase in population but, also, by a real need for housing, has led to increased occupation of public and open space, and the construction of informal and backyard housing (Institute for Social and Systemic Change: 1999). This phenomenon is particularly evident in the area surrounding Motherwell, especially to the north-northwest of the township. The reason given for this by the NMMM and local councillors is that the majority of other township areas have reached a saturation point, with little vacant land

available, especially for informal settlement. The NMMM has also been relocating informal settlements from other township areas to newly constructed, low-cost, high-density housing developments around the outskirts of Motherwell. Therefore, there has been a rapid increase in the population of Motherwell and surrounding areas. This trend of 'rapid urbanization' will continue and most probably increase as more developments in the Coega IDZ get underway (Mabese, A. Personal Communication & Africa, D. Personal Communication).

### **8.3.2.2 Education and skills data**

Almost 7% of the NMMM's population over the age of 20 have received no schooling. A large percentage (85%) has received education between Grades 0 and 12, and the balance (8%) has received some form of tertiary education ([www.demarcation.org.za](http://www.demarcation.org.za)).

In Motherwell, an estimated 25% of the workforce has education level of Grade 10, Grade 12, or a diploma. Approximately 50% of the sample surveyed as part of the Motherwell Socio-economic Study under the MURP (MURP: 2005) reportedly has no, or fairly limited, life skills, which provides an explanation for the high levels of unemployment and low income in the area. Common skills acquired by Motherwell residents include bricklaying, painting, machining, plumbing, and others such as sewing, manufacturing, and hairdressing (MURP: 2005).

### **8.3.2.3 Employment and occupational data**

The unemployment rate in the NMMM is high at around 42%, reflecting significant poverty in the large townships and informal settlements of the Metro (NMMM IDP: 2005). Based on Statistics South Africa's Labour Force Survey, this is substantially higher than the national rate of around 26% (<http://www.statssa.gov.za/keyindicators/lfs.asp>). Table 8.2 provides data for formal and informal employment per sector in the NMMM. Manufacturing employs the greatest number of people (34%), followed by the Services Sector (24%), and the Trade (13%) (Drif-wefa: 2002).

*Table 8.2: Formal and informal employment per sector*

<b>Sector</b>	<b>Formal Employment</b>	<b>Informal Employment</b>
Agriculture	2%	0%
Mining	0%	0%
Manufacturing	34%	15%
Electricity	1%	0%
Construction	5%	10%
Trade	13%	58%
Transport	4%	8%
Financial	8%	1%
Services	24%	8%
Other	9%	0%
<b>Total</b>	<b>100%</b>	<b>100%</b>

*(Drif-wefa: 2002)*

The informal sector consists mainly of the trade sector (58%), followed by the manufacturing sector (15%). Informal employment within the trade sector includes activities such as street vending, and the operating of shebeens and spaza shops. Other informal activities, which can be classified under the remaining sectors, include taxi services, and the production of goods, for example, clothing and shoes, brewing of beer, hairdressing, and traditional healing.

According to the MURP (2005), the current unemployment rate in Motherwell is estimated at around 53% (more than double the national average). Informal and self-employment rates are estimated at between 3% and 11% of the population.

The majority of people with employment in Motherwell are employed in the private household, social services, and manufacturing sectors. This is consistent with the wider Metropolitan area where manufacturing plays a large role (in comparison to construction, agriculture, and mining, which are not as well developed). There is, however, a strong likelihood that this scenario will change with the development of the IDZ, where construction could become a key source of employment, followed by an increase in employment in primary and secondary industries downstream or upstream of the IDZ developments.

#### **8.3.2.4 Income and expenditure patterns**

Approximately 15% of the total population of the Eastern Cape resides in the NMMM. However, the NMMM generates more than 44% of the Province's Gross Geographical Product<sup>3</sup> (GGP). Indeed, together with East London, the NMMM generates more than 70% of the Provincial GGP. The Port Elizabeth-Uitenhage metropolitan region has the highest income generation per capita in the Eastern Cape. Its per capita income is about 50% higher than that of the East-London-King Williamstown metropolitan areas (Haines: 2003).

Migration in and out of Port Elizabeth is not well documented, although local authorities indicate that in-migration is taking place at a fairly rapid rate, especially into areas where open land is still available, such as Motherwell (Mabese, A. Personal Communication). However, provincial figures do show mass migration out of the Eastern Cape, with an estimated 46% of black people living in the Western Cape born in the Eastern Cape (Institute for Social and Systemic Change: 1999).

In Motherwell, average monthly disposable household income is approximately R 521.00, with NU 11 ranking lowest at an estimated R 188.00 per household per month (MURP: 2005).

### **8.3.3 Infrastructure and services**

#### **8.3.3.1 Water and sanitation**

The NMMM purchases water from the Department of Water Affairs and Forestry (DWAF). Water is currently supplied from the Kromme, Kouga, and Swartkops Rivers to the west of the Metro,

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<sup>3</sup> Gross Geographic Product is defined as the value added to a financial product within a specific period of time, for example, monthly, quarterly, annually etc. within a specifically defined geographical area.

the Sundays River to the North (transferred from the Orange River), and smaller sources such as the Uitenhage Springs. According to Mercer (2003), the NMMM consumed 73,000,000 litres of potable water during the 2000/2001 period, and rapid growth in water demand is expected over the next 10 years. Presently, 84% of the households in the NMMM have water on-tap on site, and 85% have access to either a flush toilet or pit latrine (Zimmerman: 2003).

DWAF has made assurances to the Coega IDZ regarding water availability, indicating that it can double the supply to the NMMM if necessary (although this will require increased transfer from the Orange River System).

The formal settlement area of Motherwell is well serviced with water, with the majority of the population having access to potable water inside their dwellings or yards, or from public standpipes.

### **8.3.3.2 Waste disposal**

Within the NMMM, the City of Port Elizabeth currently disposes of its general, non-hazardous waste at two solid waste disposal sites, one near Struandale industrial area, and one at Arlington.

As peri-urban areas do not have the same levels of service as urban areas, the majority of the peri-urban households burn refuse (Coastal and Environmental Services: 2000). The NMMM has a weekly service for the collection of solid waste for all its suburbs and townships.

### **8.3.3.3 Health and welfare**

Responsibility for public health service provision in the NMMM is vested with the Municipality and the Provincial Administration, which does lead to co-ordination difficulties in system operation. Private clinics and medical centres tend to play a significant role in the provision of health services in the study area.

The public service sector has a referral system from Primary Health Care clinics to hospitals, which provide a more comprehensive service. The clinics are a municipal responsibility, whilst the hospitals fall under the Provincial Administration. To improve the situation, a restructuring process for the integration of services is currently under way.

#### ***8.3.3.3.1 Motherwell township***

In Motherwell, there are five clinics (Table 8.3) that provide:

- Primary health care, preventive, and promotive treatment.
- Curative health care, for minor ailments such as influenza.
- Pre- and post-HIV counselling services, but not testing.
- Referrals for chronic illnesses.

Table 8.3: Clinic and staff data

<i>Clinic</i>	<i>NU2</i>	<i>NU8</i>	<i>NU11</i>	<i>T'Xolo</i>	<i>Mobile</i>	<i>Coega</i>	<i>NU4</i>
Senior Community Health Nurses	1	1	1				
Community Health Nurses	8	9	8	4	4	2	
Enrolled Nurses	1	--	1	1		1	
Health Educators	2	2	1	1	1		2
Community Health Workers	2	1		1			

There is also a Community Health Centre in NU4 of Motherwell, which is an arm of the provincially administrated Dora Nginza Hospital from which supplies are obtained (Dora Nginza Hospital is an estimated 20 km from Motherwell). Services offered in the Community Health Centre include:

- Dealing with referrals from the local clinics.
- Maternity and obstetric services.
- An Out-Patients Department.
- Casualty.
- Medication for chronic illnesses like diabetes.
- Voluntary HIV Counselling and Testing.

#### *8.3.3.3.2 Provincial Administration Services*

There are three Provincial Administration Hospitals, viz. Dora Nginza Hospital, Livingstone Hospital, and Port Elizabeth Provincial Hospital, in the NMMM. These three provincial hospitals each have certain speciality units, viz. Dora Nginza - Burns Unit, Livingstone - Renal and Paediatrics Unit, and Port Elizabeth Provincial Hospital - Cardiac Unit. Additionally, there are 33 clinics, 27 Community Health committees, and five Health Forums.

#### *8.3.3.3.3 Private health care centres*

In the greater NMMM area there are 11 private health care centres run by independent institutions (Table 8.4).

*Table 8.4: Private health care centres in the NMMM*

<b>Institution</b>	<b>Health care centre</b>
Network Healthcare	Cuyler Clinic Greenacres Hospital
Afrox Healthcare	Huntersraig Private Hospital Oasim Private Hospital Westways Private Hospital Mercentile Private Hospital St Georges Hospital
Lifecare	Algoa Frailcare Centre Lorraine Frailcare Centre
Port Elizabeth Technikon	Port Elizabeth Technikon Primary Health Service
University of Port Elizabeth	University of Port Elizabeth Primary Health Service

*(Brown, S. Personal Communication).*

### **8.3.3.4 Disaster management, community safety, and emergency services**

#### *8.3.3.4.1 Community safety*

Crime has been listed as one of the major national problems, as it negatively affects economic growth, foreign investment, and tourism. However, the NMMM is considered as one of the safest metropolitan areas in the country. Recorded crime rates in the NMMM vary according to the individual crime. In 2000, there were 72 recorded murders for every 100,000 residents of the NMMM, and 322 (per 100,000 persons) incidents of robbery with aggravating circumstances (i.e. robbery with a dangerous weapon) (Schönsteich: 2003).

SAPS budget and staffing are estimated to be 20% below requirement, with a particular shortage of female police officers. The Department of Justice and Correctional Services also experiences constraints, with Port Elizabeth alone having a 7,000 docket backlog. Inexperience in approximately half the staff complement, and poor honouring of court dates, worsen the situation (Institute for Social and Systemic Change: 1999).

The private security industry, to a certain extent, bridges the gap that an under-resourced SAPS leaves, with approximately 150 to 200 security firms operating in the NMMM. Business Against Crime Eastern Cape (BAC), in partnership with relevant government departments and the SAPS, has had outstanding success in the Eastern Cape as well as the NMMM, through pro-active crime prevention, legislative review, economic repositioning, and rehabilitation of past offenders. Indeed, it is reported that the BAC installation of a closed circuit television in the Port Elizabeth CBD has resulted in a 64% decrease in crime over a period of six months.

#### *8.3.3.4.2 Fire, rescue and emergency services*

The Port Elizabeth Fire and Emergency Services (PEFES) caters for a populace of more than one million people and property worth almost R 5 billion, over an area of 500 square kilometres. PEFES includes nine fire stations across the NMMM, with a total of 107 vehicles and 301 fire

service staff (Mercer: 2003). The following list provides the location of the nine fire stations, the closest to the proposed project being Motherwell:

- South End
- Miramar
- Sidwell
- Motherwell
- Kwazakhele
- Greenbushes
- Kwanobuhle
- Govan Mbeki
- Uitenhage.

Ambulance service is strongly reliant on private ambulance services in the NMMM. There are a total of nine private ambulance services with 28 ambulances, 10 medical response vehicles, and 99 emergency staff members. The Provincial Emergency Medical Rescue Services is based in Korsten, and has a total of fifteen ambulances, four emergency response vehicles, and an ambulance staff of 401 (Brown, S. Personal Communication).

#### **8.3.3.5 Roads and transport**

The NMMM has a well developed transport system that includes road, sea, air, and railway transporting facilities. The rail system, harbour, and airport fall under Spoornet, National Ports Authority (NPA), and the Airports Company Limited, respectively. The road and highway system falls under the NMMM, with the exception of the N2 national highway, which is the responsibility of the South African National Roads Agency Limited (SANRAL), and the trunk roads, for which the Eastern Cape Provincial Government is responsible (Mercer: 2003).

##### ***8.3.3.5.1 Road transport***

The primary road system in the NMMM is well developed with multi lane freeways, arterial- and collector-roads. The N2 bisects the area, providing a good link to industrial and other parts of the city. The arterial road system is in good condition, although it requires upgrading in some rapidly developing areas. Other roads of primary importance are trunk roads, which link Port Elizabeth, Uitenhage, and Despatch within the NMMM, and the Settlers Freeway, which links the N2 and the CBD, southern beaches and academic institutions (Mercer: 2003).

The lower income sector of the community is highly dependent on public transport. Minibus taxis are the most commonly used mode of transport (63%), while other modes of transport include buses (33%) and privately owned cars (Mercer: 2003). Figure 8.1 illustrates the relative usage of public transport in the NMMM.

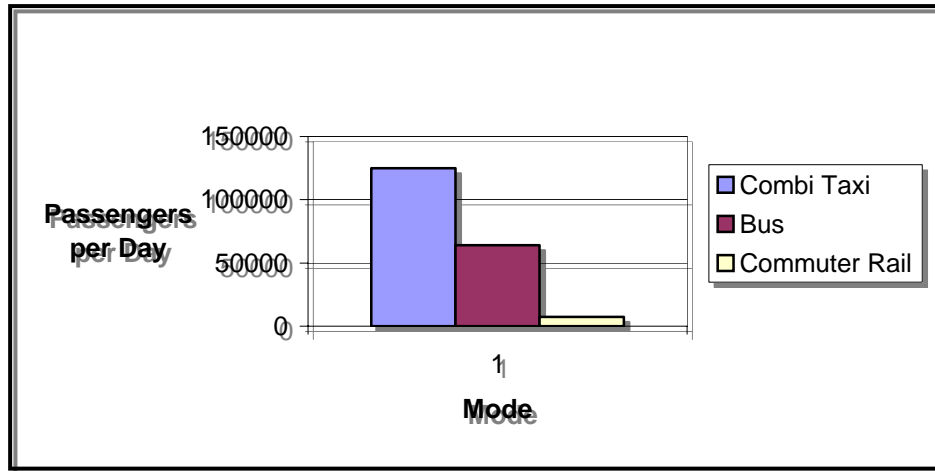


Figure 8.1: Relative usage of public transport modes.

(Mercer: 2003)

A Transport Forum is in place, with membership from the NMMM, minibus taxi associations, commuter bus operators, SAPS, National Defence Force, and other institutions and organizations that use and are reliant on road transport. The Transport Forum is a non-statutory body that meets on a regular basis, in an attempt to co-ordinate transport concerns, address problems, and regulate road transport (Dippenaar, D. Personal Communication).

The Algoa Bus Service (ABS) is the operating company of e'Zethu Bus Company, a Section 21 company with a board of 15 Directors drawn from the following:

- Civic organizations and organized labour.
- Organized business.
- Governmental structures.
- Management.
- Other interest groups.

The ABS is the only holder of a permit to operate scheduled bus services in the metropolitan area, as issued by the Transport Forum. The service also extends to adjacent rural areas. The service coverage is such that virtually all residential and industrial areas fall within a maximum of 750 m walking distance to the nearest bus stop (the recommended maximum being 350 m). The majority of current contractors at work in the IDZ make use of this service to transport labourers to and from the Metro (Dippenaar, D. Personal Communication).

A number of private bus operators primarily offer hire transport, but are not subsidized unless doing contractual work for the ABS. There are currently more than 2,000 16-seater minibus taxis licensed to operate. This service directly competes with the bus service, and as indicated above, commands a bigger market share because of flexibility of stops and journey times (despite overcrowding problems and no pre-set timetables). An oversupply of minibuses is evident, reducing the viability of these businesses (Mercer: 2003).

The Coega area is serviced by the N2, secondary roads, and gravel roads. The N2 is the major road link along the east coast and is in good condition, serving an important function in the economy of the Eastern Cape. The old Grahamstown road (R435) within the Coega area provides a linking road from the N2 to Uitenhage. The Addo road (R450) is the main access road from the Addo and Kirkwood agricultural hinterland to Port Elizabeth. This road also provides access to Motherwell Residential Township and the Markman Industrial Township.

#### **8.3.3.5.2 Rail transport**

The main railway line from Port Elizabeth enters the Coega IDZ on the seaward side of Markman Industrial Township, which is served from the Aloes Railway Station. The line has a maximum capacity of 54 trains per day to and from Port Elizabeth. The Coega IDZ may necessitate the extension of the Port Elizabeth line to Motherwell and Coega (Mercer: 2003).

The public rail system caters for approximately 4% (7,300) of NMMM commuters per day (Figure 8.1). Railway stations have been upgraded following an investigation into high investment and low return from the rail service. The upgrading of the Motherwell line will improve services to Coega. The recovery rate is expected to be high, as a result of high population density in those areas, due to industrial growth and residential expansion.

#### **8.3.3.5.3 Air and sea transport**

The Port of Port Elizabeth and the airport are located close to the CBD. The city has been designed such that main freight transportation is primarily on the arterial roads, which can handle such traffic. Abnormal loads are problematic in certain areas due to vertical clearances, and this requires consultation with the NMMM.

As is clear from the focus of this study, the construction of the Port of Ngqura is already underway. The Port of Ngqura is to serve the IDZ and will be the focus of industrial growth in the Metro for some time to come (Mercer: 2003).

#### **8.3.3.6 Housing**

The NMMM is making a serious attempt to deliver higher quality housing in the numbers required to eradicate backlogs. The current backlog is estimated to be 60,000 units. The metropolitan area has changed its '4-peg housing programme' (where sites were merely made available for houses in anticipation of Provincial subsidies being approved) to one where the full subsidy amount will be used for the top structures. The cost of land and services will be borne by the

Metro from industrial levy funds. Current projects being undertaken under the old '4-peg housing programme' amount to 7,176 units in the Port Elizabeth area, while the Uitenhage area has projects that will deliver 7,401 units (Mercer: 2003).

In the Fairview area, a significant application has been submitted on behalf of the Port Elizabeth Land Restitution and Housing Association (PELRHA), intended to make available approximately 950 residential erven as restitution to claimants who were previously disposed of land. The land that is currently vacant can accommodate 4,000 to 5,000 people.

Current housing schemes to the north of Motherwell focus on housing provision for people residing in informal settlements around areas such as KwaZakele and Zwide. The NMMM is in the process of implementing plans which include the construction of approximately 25,000 houses in the area by 2007 (Africa, D. Personal Communication).

Other aspects, which are currently being reviewed to speed up delivery, are:

- Increased density, with the introduction of duplex and row housing to decrease service costs.
- Introduction of micro loans to facilitate self-help.
- Delivery using emerging contractors under the supervision of local authorities.
- Introduction of alternative building materials.
- The establishment of a housing association to pursue rent-to-buy options whilst utilising the subsidy scheme.

### **8.3.4 Land use**

#### **8.3.4.1 Settlement patterns**

In terms of the rezoning of the Coega IDZ, no residential area is to be allowed within the zone. The CDC has been in the process of resettling people from the IDZ area for the past three years. The majority of the families who used to reside within the boundaries of the IDZ have been resettled to a part of Wells Estate, to the southeast of the IDZ (Figure 2.2 in Chapter 2). There are no families residing in any proximity to the Port.

#### **8.3.4.2 Aquaculture**

Marine Growers (Pty) Ltd is currently operating the abalone farm located approximately 2.5 km to the northeast from the Port (Figure 2.2 in Chapter 2). Marine Growers is wholly owned by Transnet. The farm used to belong to private shareholders, but with original construction of the Port, after lengthy court cases and arbitration, it was bought by Portnet and recently transferred to Transnet. Transnet is currently considering the sale of the operation, and, according to Mr W de Wet the current manager, it may go out on tender for sale in the near future (De Wet, Personal Communication).

The farm produces in the order of 32 tonnes of abalone per year. The total production is exported to Hong Kong and Japan, either live or frozen. In order to maintain optimum production, the farm circulates between 600,000 and 1 million litres of water through its system of tanks every hour. Water is abstracted from the sea, at a point straight out into the sea from the farm (De Wet, Personal Communication).

There are currently 48 permanent staff members at the farm. For processing, there are usually around six people employed on a contract basis, with four temporary staff members during winter (De Wet, Personal Communication).

Sea Ark has recently completed construction of a pilot project as part of a planned prawn farm in close proximity to the abalone farm (Figure 2.2 in Chapter 2). The pilot project will be launched late in 2006. Initially this project entails eight hatchery tanks and four growth ponds. Should the pilot project prove feasible, Sea Ark intends to extend their operation to an ultimate 1,100 ha under ponds. It is estimated that at full capacity, the operation could provide employment to around 2,500 people in the breeding and rearing section, while a further 500 could be required for processing (De Wet, Personal Communication). The project would initially draw water from the abalone farm extraction system, and connecting pipelines have already been constructed. Most of the water used will be re-circulated, which means that once the ponds have been filled, only regular 'top-ups' will be required.

### ***8.3.5 Tourism and recreation***

A tourist is generally defined as an individual who spends at least one night away from his/her regular place of residence. Therefore, it includes people on holiday, business, or visiting family and friends. During 2000, it was estimated that a total of 1,290,000 tourists spent R 1,3 billion in the NMMM (Myles: 2003).

There are a large number of accommodation facilities available in the NMMM, including hotels, bed and breakfasts, as well as holiday flats and self-catering accommodation. In total there are around 7,000 tourist beds available in both formal hotel and informal accommodation (for example, guest houses and bed and breakfasts), with an occupancy rate of around 50% (Myles: 2003).

Table 8.5 provides a breakdown of tourist numbers per origin and purpose of visit (holiday, business, visiting friends and relatives (VFR), and other) (Myles: 2003). These data indicate that the majority of tourists to the NMMM visit friends and relatives (47.7%), followed by business visitors (28.6%), and then leisure/holidaymakers.

*Table 8.5: Breakdown of tourism per origin and purpose of visit.*

<b>Purpose/Origin</b>	<b>Foreign (excl Africa)</b>	<b>Africa</b>	<b>Domestic</b>	<b>Total</b>
Holiday	47,250	9,450	240,000	296,700
Business	8,250	1,650	360,000	369,900
VFR	13,500	2,700	600,000	616,200
Other	6,000	1,200	----	7,200
Total	75,000	15,000	1,200,000	1,290,000

### **8.3.5.1 Relevant tourist and recreation activities**

This section briefly describes a number of tourist and recreation activities which are of relevance to the project. <sup>4</sup>

#### *8.3.5.1.1 Scuba diving*

At present there are two scuba diving operators in the NMMM. Both of these operators provide diving courses and charters. Reefs are widespread across the bay and diving takes place across a vast area, stretching from close to Port Elizabeth, around the bay to Sardinia (Van Aardt, L. Personal Communication).

#### *8.3.5.1.2 Recreational fishing*

There are two main types of recreational fishing activities which take place in the study area, i.e. shore angling and deep sea angling (taking place off-shore, from ski-boats).

The beaches both to the north and the south of the Port are very popular with shore anglers. The beaches to the north are accessed through the Hougham Park area. To the south, angling takes place up to around 100 m from the western breakwater, up to the point where access is restricted due to safety reasons, close to the inlet of the sand by-pass system<sup>5</sup>. According to Mr D Goldberg, chairman of the Eastern Cape Shore Anglers Association (ECSAA), the ECSAA is currently involved in a tag-and-release programme in conjunction with the Port Elizabeth Museum and Marine and Coastal Management within the Port, as part of an on-going research programme on fish diversity and movement in and around the Port (Goldberg, D. Personal Communication).

Ski-boat anglers fish across a wide area in the bay, on reefs, and along the coast line. According to Mr K van der Merwe, previous chairman of Port Elizabeth Deep Sea Angling, ski-boat anglers often fish in the areas around Bird and St Croix Islands, and although some tend to fish close to

<sup>4</sup> The aim is not to provide an exhaustive description of tourism in the study area in general.

<sup>5</sup> The sand bypass system is as yet not operational and does not, therefore, pose real safety risks to anglers at the moment. However, Goldberg, D (Personal Communication) indicated that the majority of anglers tend to respect this restriction.

the eastern breakwater of the Port, this is not a very frequent occurrence (Van der Merwe, K. Personal Communication).

#### *8.3.5.1.3 Whale and bird watching charters*

There are currently two boat charters operating on a regular basis, which offer breakfast and sunset cruises in the bay. A popular add-on to these cruises is a so-called Eco-cruise, which includes visits to St Croix Island, where the large breeding colony of African Penguins is a great attraction. Eco-cruises also often include whale and dolphin watching as part of the package. According to Mr L Edwards of Raggy Charters, charter boats are not allowed to be further than 15 nautical miles from a safe port, which at present is the Port of Port Elizabeth, thereby making St Croix Island almost the furthest point allowed (Edwards, L. Raggy Charters).

#### **8.3.5.2 Addo Elephant National Park**

The Addo Elephant National Park (AENP) is located to the north and east of the Coega IDZ. South African National Parks (SANParks) has recently substantially expanded the AENP from the previous approximately 125,000 ha to around 236,000 ha (there is further potential to ultimately expand it to around 400,000 ha). There is also an approximately 120,000 ha Marine Protected Area (MPA) which has been earmarked for incorporation, and for which public consultation processes are currently underway. The MPA includes the Bird and St Croix island groups. With the inclusion of the MPA, the Park will 'obtain' species such as the southern right whale and great white shark, thereby making it a unique Big 7 destination (SANParks: 2005).

The Park currently draws almost 200,000 tourists annually, of which an estimated 50% are foreign tourists. According to Ms M Bradfield, Social Ecologist with the Park, it plans to obtain a boat towards the end of 2006, which will be available to provide day trips to tourists in and around the bay, but specifically to Bird and St Croix Islands for birding and whale watching (Bradfield, M. Personal Communication).

#### **8.3.6 SME development**

There is currently a strong focus on empowerment and the development of small, medium, and micro enterprises (SMEs). The Port Elizabeth Regional Chamber of Commerce and Industry (PERCCI) and other business chambers play a significant role in the development of these enterprises. A number of organizations and institutions are currently in existence, some of which are purely tasked with SME development and empowerment. These are described below.

- Port Elizabeth Region Manufacturing Advisory Centre (PERMAC).  
PERMAC runs an advisory programme, providing a service to SMEs with less than 200 employees, to increase their productivity and competitiveness. Their focus is on upgrading the capabilities of previously disadvantaged manufacturers. PERMAC also serves as a vehicle through which manufacturing SMEs can link up with other industrial development and management initiatives in the country, such as the Industrial Cluster process and the Spatial Development Initiatives (SMME Tabloid: 2002, and Jefferson, W. Personal Communication).

- Commercial Self Employment Centre (COMSEC).  
COMSEC provides business premises, administrative support, and skills training to SMEs. Approximately 70% of businesses assisted by COMSEC fall in to the “high-risk” business start-up category. COMSEC provides an “incubator” environment for small businesses, with the main aim of the provision of services to these businesses. It also operates “caravan satellite offices” in outlying and previously disadvantaged areas, from which advice and information is disseminated (Port Elizabeth Regional Chamber of Commerce and Industry: 2005).
- Black Economic Empowerment Project (BEEP).  
The BEEP developed out of PERCCI’s Black Economic Empowerment Forum (BEEF). It was founded towards the end of 2000, with the aim of fast-tracking Black Economic Empowerment (BEE) in the NMMM. It comprises a number of senior executives and entrepreneurs from previously disadvantaged groups. The objective of the BEEP is to share ideas and implement initiatives for the development of local BEE.

### ***8.3.7 Corporate Social Investment***

The commercial sector of the NMMM, ranging from small businesses to large multi-nationals, has become increasingly involved with projects in surrounding communities. Over the past few years the local community has benefited tremendously from these Corporate Social Investment (CSI) projects, as the focus has shifted from simply providing money, to getting involved at community level. PERCCI tend to play an unofficial co-ordination role in CSI, as many organizations or industries embarking on CSI projects do so with liaison through PERCCI.

The following provides examples of organizations involved in CSI project in the NMMM. These projects range from education, job creation, health, HIV/AIDS, charities, housing, and youth development.

- Volkswagen South Africa (through the Volkswagen Trust).
- General Motors South Africa (through the Delta Foundation).
- Goodyear South Africa.
- Continental Tyre SA.
- Bennett’s IT Solutions.
- Dimension Data.
- Spar Eastern Cape.
- Willard Batteries.
- Johnson Controls AG.

The NPA currently runs extensive CSI programmes with the main targets of:

- Investment in communities around the ports
- Investment in previously disadvantaged communities
- Programmes that engender development
- Programmes that foster empowerment and growth

The NPA CSI currently focuses on four key areas, i.e. Education, training and development, Environmental Management, Arts and Culture, and Sports Development. The NPA at the Port of Port Elizabeth currently focuses on projects relating to the marine environment, education and HIV/AIDS.

The Transnet Foundation forms the CSI arm of Transnet. The Foundation comprises of six portfolios, i.e. Education and Training, Arts and Culture, Health, Sport, Entrepreneurial Development, Special Projects, and Heritage Preservation.

## 8.4 Contextual setting of the proposed development

This section provides a contextual setting for the proposed project in relation to the Coega IDZ. Although not a requirement of the TOR, it is important to understand this context as it is unique when compared to other port expansions and developments in South Africa, in that it will occur within an already earmarked and demarcated IDZ.

### 8.4.1 Coega Industrial Development Zone

The South African Government has recognized that the private sector has an important role to play in stimulating employment through new investment. However, it also recognizes that there are a number of constraints inhibiting private sector investment. For this reason, the Spatial Development Initiative (SDI) programme was adopted by the Cabinet in 1995 in an attempt to improve the functioning of Government in targeted underdeveloped regions in the country. The SDI programme, therefore, serves as a special-purpose vehicle to stimulate growth in designated high potential areas. To date, there are twelve SDIs established in the country, three of which, the Wild Coast SDI, Buffalo River SDI, and the Fish River SDI, are located in the Eastern Cape (Urban-Econ: 2002).

An important element of the SDI programme is the establishment of IDZs, of which Coega is one. IDZs are similar to the International Free Trade Zones and Export Processing Zones, designated customs-privileged areas in which industries are exempt from import duties, but where South African labour legislation and environmental controls apply. IDZs have been identified as strategic export-manufacturing platforms into African and overseas markets. The IDZs are, therefore, meant to focus on augmenting existing incentives, Government resources, and

institutional (public and private) efforts in strategic locations, in such a manner that South Africa's competitiveness is enhanced (Urban-Econ: 2002).

#### **8.4.2 Coega Development Corporation**

The CDC, an entity that has links with external stakeholders (often represented by Government bodies) and organizations located within the Core Development Area (CDA), will manage the Coega IDZ and CDA. The CDC is a formal legal entity operating as a private, Limited Liability Company. In order to safeguard national, provincial and local interests, the principal shareholders are National, Provincial and Local Government.

#### **8.4.3 Other developments in the IDZ**

A substantial number of developments are currently in the pipeline for the Coega IDZ. Should the majority of these developments happen as currently planned, it is estimated that by the end of 2008 in the order of 13,000 construction and 6,000 permanent employment opportunities would be created.

#### ***Implications for the project***

#### ***- Other developments in the Coega IDZ -***

Should the development of the proposed project go ahead as planned, it is likely to occur at the same time as the construction of a number of other multi-million Rand developments in the IDZ, requiring, *inter alia*, an estimated total of at least 13,000 construction workers. This may lead to a shortage of required labour (particularly skilled and semi-skilled), and/or materials in the region.

#### **8.4.4 The project within the Coega IDZ - other aspects**

A number of aspects, which would generally be associated with the development of a project of this nature and which would be the responsibility of the developer, are slightly different due to the location of the Port. In addition, there are certain aspects related to the IDZ which impact on the proposed development. Although potential effects of the development are described in Section 8.4, it is important to understand the broader context.

##### **8.4.4.1 In-migration**

Induced migration is usually, although not solely, associated with sizeable developments. However, the context in which the proposed project finds itself differs slightly from the scenario where a single developer is the direct cause of induced migration. In-migration into the greater NMMM area, but more specifically the areas in close proximity to the IDZ, is already taking place at a fairly rapid rate. The reasons for the current in-migration are three-fold:

- Poverty in the Eastern Cape in general, but specifically in rural areas, leads people to

migrate to urban areas in search of better opportunities to sustain their livelihoods.

- The high expectations being held of the Coega IDZ and Port.
- Other developments already announced and/or being implemented.

According to conditions laid out in the original Record of Decision issued for the Port<sup>6</sup>, “*The CDC and NPA in collaboration with the Nelson Mandela Metropole must plan for the influx of job seekers to the Coega Development site*” (DEAT: 2001). The CDC introduced what is commonly known as the Labour and Business Management Services (LBMS) in an attempt to mitigate the influx of people.

#### *Implications for the project*

##### *- In-migration -*

It is virtually impossible to determine the percentage of migrants, which are, or will be coming into the NMMM due to the proposed project alone, but the partial responsibility of the project cannot be ignored. The impacts of induced migration are discussed further in Section 8.4.

#### **8.4.4.2 CDC’s Labour and Business Management Services**

The CDC adopted an integrated approach for LBMS (Coega Development Corporation: 2002). The LBMS has a number of strategic objectives:

- Ensure the optimum use of available local resources, which includes labour, goods, and services.
- Facilitate buy-in and support from local stakeholders.

To reach these objectives, certain activities are seen as essential:

- Training and development of the local labour force.
- Developing the capacity of Small and Medium Enterprises (SMEs) through training.
- Achieving optimum value for money, and world-class quality standards.
- Identifying and managing risks associated with community expectations and their ability to participate meaningfully in employment and business opportunities, through the use of appropriate systems, processes, and procedures.

The emphasis is, therefore, strongly on the use of local labour. The CDC defines “local” for the purposes of recruitment as the NMMM for unskilled and semi-skilled jobs, and the rest of the Eastern Cape for jobs requiring higher skills levels, and then further afield if skills are not present and/or cannot be trained. The LBMS includes two key components, i.e. Labour Management Services (LMS) which deals with Labour Supply and Labour Demand Management, Training

<sup>6</sup> Special Condition 2.42.

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Management, and Industrial Relations Management, and the Business Management Services (BMS), which deals with Procurement Management and SMME Development Management.

The foundation of the LBMS is the IDZ Industrial Relations Policy, IDZ ZLA, and Project Labour Agreements (PLAs). Industrial Relations (IR) guidelines have been developed by the CDC, in consultation with stakeholders for the IDZ. The objective is to provide guidance for all contractors within the IDZ, in order to promote a common understanding, eliminate duplication, and ensure consistency in the application of labour management issues.

The guidelines serve as a policy document, providing principles to guide labour matters on all contracts. This includes recruitment target areas and priorities.

The IDZ IR Policy is contractually binding to all contractors, and serves as a basis for the development of the ZLA and subsequent PLAs for each individual project (Coega Development Corporation, 2002).

*8.4.4.2.1 Current status*

There are currently 67,538 people registered on the LMS database. To date, 14,987 people have been employed on contracts in the IDZ, with an average duration of 113 days per contract. The total wages bill was approximately R 165,128,540. A total of 4,211 people have been trained, and of these trainees, 3,706 have been placed (CDC: 2006).

The BMS currently database currently consist of 4,441 registered businesses. To date 904 contracts have been awarded with a value of more than R 1,3 billion. Through the SMME Development Programme, 42 SMMEs have been contracted with overall contract values of approximately R 91 million (CDC: 2006).

*Implications for the project  
- CDC's LBMS -*

All contractors operating in the IDZ will be required to make use of the LMS for recruitment purposes. No recruitment will be allowed on-site or near site, only at the CDC Recruitment Centre. Use of local labour for recruitment of the lower skills levels is compulsory. CPHMG have indicated that they will encourage contractors to adhere to these requirements.

The IDZ IR policy is contractually binding, and the basis for the ZLA. All developers will have to adhere to the IR policy and ZLA, and implement it on their own IR and human resources activities. CPHMG has also indicated that they will abide by the ZLA, and that it will be written into all tender and contract documents.

It is not compulsory for contractors to make use of the BMS for procurement and SME involvement. However, it will be to any developer's benefit to at least investigate the merits of the system, based on individual requirements. Again, CPHMG have indicated a willingness to make use of the BMS for procurement and appointment of contractors.

#### 8.4.4.3 CDCs HIV/AIDS Programme

According to the Special Conditions set out in the original Port ROD<sup>7</sup>, “*Proper HIV/AIDS awareness training must be provided to all workers on site.*” The CDC has introduced an extensive HIV/AIDS programme and policy, which includes, *inter alia*, a rigorous awareness campaign, voluntary testing, and free condom availability. Each contractor on site in the IDZ needs to adhere to this programme and policy, and appoint a dedicated HIV/AIDS programme coordinator.

#### *Implications for the project - HIV/AIDS Programmes -*

The NPA had similar programmes during the initial construction of the Port. According to Mr J Stander, CPHMG Area Health and Safety Manager, the current project will not attempt to ‘reinvent the wheel’, but would latch on to the existing CDC programme, and extend it to contractors involved in project construction (Stander, J. Personal Communication).

#### 8.4.4.4 Construction village

In terms of the rezoning of the IDZ, no residential area is to be allowed within the zone. Therefore, no developer will be allowed to construct and run its own on-site construction village. With the emphasis on the use of local labour for unskilled or skilled jobs, limited numbers of construction workers from outside the NMMM should be expected per development. In order to accommodate skilled personnel who cannot be sourced locally, the CDC took responsibility for the establishment of a construction village. Land has been acquired on Wells Estate, and approximately 4 000 units, 80m<sup>2</sup> in size have been built. The village has been built in a normal town-planning layout with a central business and dining area, and provides the necessary health care services, for example, a clinic and qualified doctors. The operation of the construction village is outsourced via tender. Once the IDZ has been established and no more construction work is required, this housing can be integrated into the local Wells Estate community as part of a suburb.

#### *Implications for the project - Construction Village -*

No construction village, however temporary, will be allowed on site. Contractors are required to make use of the Coega Village at Wells Estate. There are second and third phases planned for Wells Estate, and should there be the need for more accommodation facilities than those which can be currently provided, these phases would be implemented. Additional construction workers can also be accommodated in the Joorst Park Resort, to the east of the N2 (which has also been used to provide for the initial Port construction needs) (Grenfell, D. Personal Communication). CPHMG is already including this kind of construction accommodation arrangement as part of their planning and tender documents.

<sup>7</sup> Special Condition 2.34.

#### 8.4.4.5 Transport

Developers and contractors in the IDZ are responsible for the arrangements for transport of labour during construction and operation. Currently the CDC allows for transport costs of R12.00 per labourer per day to be included in tender documents for construction of IDZ-related infrastructure. The Algoa Bus Service (ABS) is the only holder of a permit to operate scheduled bus services in the metropolitan area, as issued by the Transport Forum. The ABS provides a number of designated IDZ busses, which travel on specified routes at specified times, picking up any person related to construction or operation within the IDZ. Other means of managing logistics and the safety of construction-related commuters, such as 'money-less' 'Smart card' systems, are being investigated.

*Implications for the project  
- Transport -*

It will be wise and definitely cost effective for the proponent to make use of this transport system for the transport of local labour. CPHMG have already indicated that they intend to liaise closely with the Transport Forum regarding transport during the construction period.

#### 8.4.4.6 Informal trading

The IDZ is to be a zone with restricted and controlled access. No informal trading is allowed in the IDZ. The canteen at the construction village in Wells Estate makes lunch packs available for labourers staying there, thereby reducing the demand for food bought from informal traders.

*Implications for the PPP  
- Informal Trading -*

No informal trading should occur in close proximity to the construction site. Although labourers residing at Wells Estate will be issued with lunch packs, the emphasis is on local labour and therefore, a large part of the construction workforce will not be residing in Wells Estate. Thus, during construction, the proponent will need to establish on-site canteen facilities to cater for all the needs of construction labourers.

## 8.5 Description, assessment and mitigation of potential effects of the proposed development

Through the course of the specialist study, 11 potential socio-economic effects were identified. This section provides a description and assessment of the potential effects, based on the methodology prescribed by the CSIR in its TOR. Towards the end of this section, Table 8.6 provides a summary assessment of the effects.

### 8.5.1 *Employment creation and opportunities for local labour*

#### 8.5.1.1 Construction

As indicated in Section 2.4, up to 960 people may be employed at the peak of construction of Phase 2 infrastructure. However, it must be born in mind that the majority of construction contractors have a core team of more specialized and experienced individuals who move from site to site with the contractor. Based on the figures provided, approximately 70% of the total number of employees will be unskilled or semi-skilled labour, which calculates to between 588 and 672 employees.

CPHMG has indicated that it will encourage contractors to use CDCs LBMS, which puts emphasis on the use of local labour where possible. There is, thus, a definite opportunity for the majority of unskilled and semi-skilled labour to be recruited locally, thereby providing around 750 local employment opportunities per phase.

Therefore, during the construction phase the **status** of the effect is positive, and the **extent** will be predominantly regional (further than 5 km from the site) as it is assumed that the majority of skilled employees who will be coming from elsewhere in the country will be existing contractor employees. The **duration** will be short term. Before benefit enhancement, the **intensity** will be medium, with a high **probability** and high **significance**. The significance rating is high before benefit enhancement, as the potential creation of almost 1,000 employment opportunities is highly significant, regardless of the breakdown of where the employees are from. After the implementation of benefit enhancement, the probability becomes definite, the intensity increases to high as the local benefits increase, with significance remaining high. The degree of confidence in the predictions is high.

#### 8.5.1.2 Operation

During operation, it is estimated that approximately 320 additional employees would be employed for the purposes of the two additional of the container terminal and the administration craft basin. Personnel required for both project components would have to be fairly skilled.

During operation the **status** of the effect is positive and the **extent** will be national, since the necessary skilled employees would be drawn from elsewhere in the country if skills do not exist

locally, and/or sufficient local people could not be trained in time. The **duration** will be long term (i.e. for the duration of the operation of the Port). Before benefit enhancement, the **intensity** will be low with high **probability** and high **significance**. After the implementation of benefit enhancement, the intensity increases to medium as the local benefits increase, probability may become definite, with significance remaining high. The degree of confidence in the predictions is high.

### 8.5.1.3 Recommendations for benefit enhancement

- Maximize the use of local labour as far as possible, through the use of the CDC's Labour Management Services.
- Where the required skills do not occur locally, and where appropriate and applicable, ensure that relevant local individuals are trained through the use of the CDC's Training Management Services.
- Ensure that contractors stipulate percentages of local labour employment, use of SMEs, and training in their contract (as stipulated in the Zone Labour Agreement and Project Labour Agreement).
- Ensure recruitment measures are aimed particularly at construction workers classified as designated employees in terms of the Employment Equity Act (black people, as defined in the Act, women, and disabled people).
- Consider employment opportunities and the needs of disabled people during the planning of construction activities.

## 8.5.2 Opportunities for local contractors

### 8.5.2.1 Construction

Although certain aspects of the construction of the Port are technically specialized, there remain opportunities for local contractors to become involved in components of construction, which are less specialized. Using local contractors may also increase the number of employment opportunities for local people during the construction phase. CPHMG has indicated that the CDC's LMBS will be utilised in sourcing construction contractors.

During the construction phase the **status** of the effect is positive and the **extent** will be regional (further than 5 km from the site). The **duration** will be short term. Before benefit enhancement, the **intensity** will be medium with a high **probability** of occurrence and medium **significance**. After the implementation of benefit enhancement (Section 5.2.3) the intensity and significance ratings increase to high, as the local benefits increase, and the probability becomes definite. The degree of confidence in the predictions is high.

### 8.5.2.2 Operation

Most of the maintenance during operation will be conducted by maintenance teams based in the Port. There may, however, be opportunities for local contractors to carry out *ad hoc* maintenance

to components such as fences and non-specialized plant structures. CPHMG has indicated that the CDC's LMBS will be utilised in sourcing maintenance contractors.

During operation the **status** of the effect is positive and the **extent** will be regional. The **duration** will be long term (i.e. for the duration of the operation of the Port). Before benefit enhancement, the **intensity** will be medium, with the **probability** of occurrence being probable, with a medium **significance** rating. After the implementation of benefit enhancement the intensity and significance remains medium, while the probability becomes high. The degree of confidence in the predictions is high.

### 8.5.2.3 Recommendations for benefit enhancement

- Aim to optimize sub-contracting to local SMEs and ABEs.
- Establish linkages with the CDC's SME Development Management, to determine which areas of SME expertise are in existence, and which can be used during construction.
- Establish linkages with institutions involved in the development and promotion of SMEs, in order to benefit from existing SME initiatives.

## 8.5.3 Increased potential for Corporate Social Investment

### 8.5.3.1 Operation

PERCCI and the NPA Corporate Affairs Division at the Port of Port Elizabeth, together with a large number of industries in the NMMM, are actively involved in CSI and the co-ordinated management of such programmes to the benefit of the population of the NMMM. Although the establishment and implementation of CSI programmes are not prescribed as an IDZ prerequisite, there are ample opportunities for Transnet to get actively involved in CSI in the NMMM through the Transnet Foundation.

During operation the **status** of the effect is positive and the **extent** will be regional. The **duration** will be long term (i.e. for the duration of the operation of the Port). Before benefit enhancement, the **intensity** will be medium, with **probability** of occurrence being probable, and low **significance**. After the implementation of benefit enhancement, the intensity remains medium, while the probability becomes high, with medium **significance**. The degree of confidence in the predictions is medium.

### 8.5.3.2 Recommendations for benefit enhancement

- Through the Transnet Foundation, establish linkages with local PERCCI and NPA in the Port of Port Elizabeth, to determine the type of CSI programmes currently being implemented.
- Identify CSI opportunities through liaison with PERCCI and local development forums.
- Focus CSI locally i.e. close to the site, e.g. Motherwell and the NMMM.

## ***8.5.4 Training/skills development opportunities***

### **8.5.4.1 Construction**

The Labour Supply Services of the CDC are structured to supply personnel to contactors, based on the individual needs of contractors. Should there not be adequate numbers of capable individuals on the LMS, suitable individuals can be trained at local training institutions, with funding from the Skills Development Levy Fund of the Department of Labour. The rationale behind the process is to create and further develop local skills through the development of the IDZ. This will add additional value to the process in that, following construction of the Port expansion, individuals will have improved skills to better market themselves for future ventures. Local training/skills development centres/organizations/institutions should be used for this purpose, and may, therefore, also benefit through an increase in the number of enrolled trainees. As indicated in Section 2, CPHMG is committed to provide training to skilled and semi-skilled employees, and this will form part of contractors' contracts. Therefore, opportunities exist for the training and development of skills of local employees.

During the construction phase the **status** of the effect is positive and the **extent** will be local and the **duration** short term. Before benefit enhancement, the **intensity** will be medium, with a high **probability** and medium **significance**. After the implementation of benefit enhancement (Section 5.4.2), the intensity rating remains the same, but significance increases to high as the local benefits increase. The degree of confidence in the predictions is high.

### **8.5.4.2 Recommendations for benefit enhancement**

- Where the required skills do not occur locally, and where appropriate and applicable, ensure that relevant local individuals are trained through the use of the CDC's Training Management Services.
- Make multi-skilling of construction workers an important priority, as employment opportunities during construction are only temporary. This is not necessarily for operational jobs in the Port, but for application in other industries in the Coega IDZ and the NMMM.

## ***8.5.5 Reduction of congestion at other South African container handling facilities***

### **8.5.5.1 Operation**

During the period 2002/2003, NPA ports handled a total of 2.20 million TEUs. Of this total, the Port of Durban handled 1.3 million TEUs (nearly 60% of the total), while the Port of Cape Town handled 560,000 TEUs (25%) and the Port of Port Elizabeth 250,000 (11%). The smaller container terminals at East London and Richards Bay handled the balance (4%) (<http://www.transnet.co.za/NPAuthority.aspx>). During the following period (2003/2004), this total increased to approximately 2.28 million TEUs, an escalation of more than 36% (<http://www.ports.co.za/port-operations.php>). Due to the vast numbers of TEUs and the rapid escalation, the three busiest container ports (Durban, Cape Town, and Port Elizabeth) currently experience a high rate of container congestion, resulting in enormous delays at the terminals.

With an anticipated ongoing increase in the number of TEUs handled annually, the handling capacity of the two additional berths could have a significant impact over time.

During operations of the container terminal, the **status** of the effect is positive and the **extent** will be national. The **duration** will be long term. Before benefit enhancement, the **intensity** will be medium with a definite **probability** of occurrence and medium **significance**. As there is limited benefit enhancement potential for this effect, the intensity and significance remain medium after the implementation of benefit enhancement. The degree of confidence in the predictions is high.

#### 8.5.5.2 Recommendations for benefit enhancement

- Ensure the on-going effective operation of the container terminal.
- Effectively strategize the movement of containers to optimize the distribution from the Port to other points in the country.

### 8.5.6 Potential effect on tourism

#### 8.5.6.1 Construction

According to Mr L van Aard, a local diving operator, diving activities within one nautical mile (approximately 1.85 km) off-shore were affected by the original Port construction as dredging activities negatively affected visibility. The possibility, therefore, exists that during dredging activities as part of the currently proposed construction, the same effects may occur. However, Mr Van Aard indicated that diving activities take place as far as Sardinia and that there are many alternative dive sites which will not be affected by the construction, and which could be dived during this period (Van Aard, L. Personal communication).

As indicated in Section 3.5.1.2, Mr D Goldberg indicated that shore angling takes place on the beaches both to the north and the south of the Port. To the south, angling takes place up to around 100 m from the western breakwater, up to the point where access is restricted due to safety reasons close to the inlet of the sand by-pass system. The project should not place any additional restrictions on these beaches, and it is, therefore, unlikely that the proposed project will have an effect on shore anglers (Goldberg, D. Personal Communication).

Ski-boat anglers fish across a wide area in the bay, on reefs, and along the coast line, and although these anglers often fish in the areas around Bird and St Croix Islands, it is unlikely that the construction activities will have an effect on them (Van der Merwe, K. Personal Communication).

Mr L Edwards of Raggy Charters, one of the boat charter companies who conduct so-called Eco-cruises indicated that the only construction activities which could potentially affect their operation are activities which create acoustic disturbance underwater. This could lead to potential changes in the behaviour patterns of cetaceans (e.g. whales and dolphins) However, since no blasting or piling will be required as part of the construction process, and none of the other activities are

expected to create sufficient underwater noise levels, there should no or very limited effect on whale watching operations (Edwards, L. Personal Communication).

Existing eco-cruises also focus on the birdlife on the islands close to the Port. The AENP is also planning to obtain a boat to conduct birding and sight seeing tours to the islands. According to the Marine Ecology Specialist, it has been reported that during the time of the original Port construction, there was a rapid decline in the number of African penguin breeding pairs in the bay area, from an estimated 22,000 to approximately 11,000<sup>8</sup>. No direct link between the original construction activities and the decline in the penguin numbers has yet been established, and although the construction may have had an effect on penguin numbers, a wide range of other factors may also have been involved (Carter, R. Personal Communication). It is, therefore, possible that the proposed construction may have an effect on the penguin population, and thereby also affect bird watching eco-cruises. However, despite the fact that the numbers may be reduced, there should be sufficient bird numbers remaining so as to not significantly affect the eco-cruises<sup>9</sup>.

The only area of the extended Addo Elephant National Park (AENP) from which the Port may be visible is the area to the east of the Sundays River mouth. According to the Conservation Development Framework for the Addo Elephant National Park (SANParks: 2005), this area is zoned as 'Low Intensity Leisure' and 'Remote'. According to Bradfield, M (Personal Communication), there is a long term intention to establish a low density camp close to the mouth of the Sundays River. However, at present there is no development and very few AENP-related tourist activities which take place in the area. It is therefore, highly unlikely that the construction of the Port expansion will have an effect on AENP tourist activities, or detract from the tourist experience when visiting.

During the construction phase the **status** of the effect is negative and the **extent** will be local (i.e. within five kilometres from the site) with a short term **duration**. Before the implementation of mitigation/management actions, the **intensity** will be low. The **probability** of occurrence is probable, and of low **significance**. After the implementation of mitigation/management actions, the probability moves to low, while both the intensity and significance ratings remain low. The degree of confidence in the predictions is medium.

#### 8.5.6.2 Operation

Based on discussions with tourism operators who use the area of the bay in the general area of the Port, it is unlikely that the operation of the container terminal and admin craft basin will affect tourism activities in the area.

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<sup>8</sup> It is important to note that this figure represents the numbers of African penguin breeding pairs and not the total number of penguins.

<sup>9</sup> A potential decrease in penguin numbers is serious issue which may have a very different significance rating from a Marine Ecology Specialist perspective. However, it must be borne in mind that this study focuses purely on the potential socio-economic effects of the proposed project.

### 8.5.6.3 Recommended mitigation/management actions

- Retain the exclusion zone south west of the western breakwater, but keep allowing shore anglers access to the area outside of the exclusion zone.
- Maintain a complaints register for tourism operators or any aggrieved party to register complaints.
- Refrain from blasting and/or piling as indicated in the project description.

## 8.5.7 Potential effect on aquaculture operations

### 8.5.7.1 Construction

According to the manager of the Marine Growers' abalone farm, since the original dredging of the Port, they have experienced problems with the pumps used for the extraction of seawater (De Wet, W. Personal Communication). The silt in the water clogs the filters in the pumps, which leads to disruptions in the water supply to the abalone operation. A disruption in sea water supply may lead to abalone mortality.

In discussions with Transnet, who are also the owners of the abalone farm, it was highlighted that the siltation of the filters was not due to the port construction activities but rather the poor placement of the filters in relation to the uptake of water. There are no potential threats to the aquaculture operations from the proposed project activities.

According to Mr De Wet, abalone are also very sensitive to vibration, especially during the important spawning period, and excessive vibration may even cause temporary infertility. However, since no blasting or piling will be required as part of construction, it is unlikely that other construction activities would produce sufficient vibration levels to disrupt spawning.

During the construction phase, the **status** of the effect is negative and the **extent** will be local (within five kilometres from the site) and permanent, since silt will remain in the bay even after Port operations may have ceased. Before the implementation of mitigation/management actions, the **intensity** will be medium with a high **probability** of occurrence, and low **significance**.

### 8.5.7.2 Recommended mitigation/management actions

No effective mitigation was identified or is required as the siltation problem has been an on-going one and is not directly linked to the initial or proposed port construction.

## 8.5.8 Induced migration

### 8.5.8.1 Construction

As part of the contextualization of the project in the Coega IDZ (Section 8.4), possible explanations were given for the already high rate of in-migration and urbanization occurring in the NMMM. This phenomenon is not likely to decrease within the foreseeable future. On the

contrary, with the ongoing developments scheduled to start soon (Section 8.4.4), in-migration is likely to increase. Potential impacts, which could be associated with the influx of people, are as follows:

- Increased demand for land and housing.
- Increased demand for municipal services.
- Health risks associated with inadequate sanitation facilities where informal settlement occurs.
- Increased demands on health and community services.
- Increased criminal activity associated with a swelling of the ranks of poor people in the area, but also of criminal opportunists, intent on exploiting the situation.
- Conflict with current residents over economic and natural resources.

Since the project will not occur in isolation but in the context already described, it is difficult to quantify the contribution of the development to induced migration. The ratio of one migrant for every construction employment opportunity can, therefore, not be applied directly.

It can, however, be stated with confidence that induced migration will take place, as it indeed already is, but that the project will not be the sole cause of it. It is a phenomenon that cannot be prevented but can be minimized by taking certain pro-active management actions, such as applying the CDC recruitment policy, the prohibition of in-formal trading in the IDZ, and the focus on providing opportunities to local residents, with the aim of minimizing the attractiveness of the IDZ development to outside job-seekers.

During the construction phase the **status** of the effect is negative, the **extent** regional, and the **duration** short term. Before the implementation of recommended mitigation/management actions, the **intensity** will be medium with a high **probability** and medium **significance**. After the implementation of such actions, the intensity may decrease to low, the probability of occurrence will become probable, and the significance will remain the same. The degree of confidence in the predictions is medium.

#### **8.5.8.2 Recommended mitigation/management actions**

- Ensure that measures designed to minimize the number of induced migrants, such as the CDC's recruitment process and disallowing of any unlicensed informal trading, are being implemented and adhered to by contractors.
- Actively downplay (through clear, simple, and persistent communication) inflated expectations of employment opportunities. Also, communicate in the same manner that recruitment will take place through the CDC's Labour Management System only, and at recruitment centres only, and not on site.
- Provide assistance to the Business Against Crime and Community Policing Forums, to address the potential for increased criminal activity.
- Although CSI is not mitigation per se, it may be viewed as a form of compensation for increased pressure on infrastructure and services in the surrounding areas. Liaise with

existing CSI bodies, as well as PERCCI, in order to coordinate efforts in providing CSI projects in areas such as health services (clinics etc.), education (provision of infrastructure and teacher training), and housing.

### **8.5.9 Increased pressure on infrastructure and services**

#### **8.5.9.1 Construction**

As the policy to use local labour will be applied as far as possible, the labour force *per se* will not be responsible for pressure on infrastructure and services. Increased pressure on infrastructure and services will occur mainly as a result of induced migration and construction activities. Induced migration may result in the same impacts as already outlined under Section 5.7.

Construction employees residing in Coega Village at Wells Estate will travel on the regular bus service between the Estate and the construction site. Local employees will most probably be travelling to the construction site on the bus routes established by ABS. According to the Transport Specialist, this will imply approximately 25 bus trips per day, which should have limited effect on the existing transport and road infrastructure.

Except for the expected 15 trucks per day transporting cement to the Port from Port Elizabeth via the N2, most other bulk material will be sourced from the commercial quarry in close proximity to Coega Kop. These vehicles will travel along Neptune Road and across the bridge over the N2, thereby avoiding roads outside of the IDZ. Very limited effect on existing transport and road infrastructure is thus anticipated to accrue from construction material deliveries.

During the construction phase the **status** of the effect is negative. The **extent** will be regional with short term **duration**. Before the implementation of recommended mitigation/management actions, the **probability** of occurrence is probable, while the **intensity** and **significance** would be medium. After the implementation of such actions, probability remains the same, although the intensity and significance may decrease to low. The degree of confidence in the predictions is high.

#### **8.5.9.2 Operation**

At peak operation, the people employed by Port operations would travel to the Port in an estimated 100 private vehicles and 10 minibus taxis per day. Also at peak operation approximately 457 500 TEUs will leave the Port by road per year, which implies 180 container trucks per hour. According to the Transport and Traffic Specialist, the road capacity of the N2 and the entrance road to the Port is 4,000 vehicles per hour per direction. This means that the road should be able to handle the additional traffic (of personnel and containers) with ease (Bowman, R. Personal Communication).

During operation the **status** of the effect will be negative. The **extent** will be regional, but with a long term **duration**. Before the implementation of recommended mitigation/management actions, the **intensity** of the effect will be low, the **probability** of occurrence would be probable, and

**significance** would be medium. After the implementation of such actions, probability remains medium, and the intensity remains low, but the significance may decrease to low. The degree of confidence in the predictions is high.

#### 8.5.9.3 Recommended mitigation/management actions

- Liaise closely with the relevant NMMM and traffic and disaster management authorities, regarding the movement of any unforeseen construction vehicles.
- Construction vehicles should only use the Neptune Road off-ramp from the N2 to get into the IDZ, and avoid the Markman/Motherwell road.
- Encourage the use of lift clubs among construction and operation employees travelling to the Port by private vehicle.

#### 8.5.10 Effects on health and safety

##### 8.5.10.1 Construction

Section 5.9 indicated the pressure that construction personnel, construction material, and plant transport vehicles may have on existing road infrastructure. It is unlikely that these additional vehicles would lead to the disruption of traffic flow, or pose any significant safety risks to pedestrians and other road users.

The most likely route between the Port of Port Elizabeth and the site will be along the N2 and the Neptune Road interchange into the IDZ. In using this route, the smaller and more congested roads between Markman and Motherwell are avoided.

Potential health risks which may stem from the construction of the container terminal and administration craft basin may be:

- Increased incidence of communicable diseases resulting from an increase in local population, due to induced migration.
- Occupational health risks associated with work on a construction site.
- Increased risk of the spread of HIV/AIDS.

The potential increase in the spread of HIV/AIDS will be dealt with as a separate impact.

During the construction phase the **status** of the effect will be negative. The **extent** will be regional, and the **duration** short term. Before the implementation of recommended mitigation/management actions, the **intensity** will be medium, the **probability** of occurrence will be probable, and **significance** would be medium. After the implementation of such actions, probability remains the same, although the intensity and significance rating may decrease to low. The degree of confidence in the predictions is medium.

#### 8.5.10.2 Recommended mitigation/management actions

- Erect proper warning signage at points along the access roads where construction vehicles and machinery may turn.
- Man such points, if required.
- All construction vehicles should adhere to official speed limits on national and district road, and a maximum of 40 km/h on the construction site.
- Include road safety and general safety as part of contractor induction.
- Keep an accident log of vehicles involved in accidents, which access the site from outside of the IDZ.
- Comply with required health and safety procedures and standards, particularly the Occupational Health and Safety Act of 1993, and associated Construction Regulations promulgated in 2003.
- Compile and implement an occupational health and safety programme.

#### 8.5.11 Potential increase in the spread of HIV/AIDS

##### 8.5.11.1 Construction

Any construction or development activity which causes movement/migration of people has the potential to increase the spread of diseases. In this case, one of the most important of these is HIV/AIDS. Induced migration, as well as the movement of contractor construction workers from elsewhere in the country, can potentially increase the spread of HIV/AIDS.

Construction workers from elsewhere in the country will reside in the Coega Village at Wells Estate. Construction camps are renowned for activities such as prostitution and varying levels of promiscuity. This could lead to scenarios where an infected construction worker coming into the area spreads the disease through unprotected intercourse with sex trade workers or local individuals, who, in turn, will spread it locally. Alternatively, an uninfected construction worker could become infected through unprotected intercourse and, on return to his/her place of origin, spread the disease there.

During the construction phase the **status** of the effect will be negative. The **extent** will be regional to national with a long term **duration**. Before the implementation of recommended mitigation/management actions, the **intensity** will be medium, **probability** of occurrence highly probably, and **significance** would be high. After the implementation of such actions, the intensity would remain the same, although the probability of occurrence and the significance may decrease to medium. The degree of confidence in the predictions is medium.

##### 8.5.11.2 Recommended mitigation/management actions

- Establish linkages with existing CDC HIV/AIDS programmes.
- Include an HIV/AIDS component in the induction programme of all construction workers coming on site.
- Ensure adequate access to HIV/AIDS-related information and condoms for all construction employees.

Table 8.6: Summary assessment table of potential effects of the proposed development on the socio-economic environment

Nature of impact	Phase <sup>10</sup>	Extent	Duration	Intensity <sup>11</sup>	Confidence	Probability	Significance (no mitigation)	Significance (with mitigation)
Employment creation and opportunities for local labour (+)	C	National	Short term	High (Medium)	High	Definite (High)	High	High
	O	National	Long term	Medium (Low)	High	Definite (High)	High	High
Opportunities for local contractors (+)	C	Regional	Short term	Medium	High	Definite (High)	Medium	Medium
	O	Regional	Long term	Medium	High	High (Probable)	Medium	Medium
Increased potential for Corporate Social Responsibility (+)	O	Regional	Long term	Medium	Medium	High (Probable)	Low	Medium
Training/skills development opportunities (+)	C	Regional	Short term	Medium	High	High	Medium	High
Reduction of congestion at other South African container handling facilities (+)	O	National	Long term	Medium	High	Definite	Medium	Medium
Potential effect on tourism (-)	C	Local	Short term	Low	Medium	Probable	Low	Low
Potential effect on aquaculture operations (-)	C	Local	Long term	Low (Medium)	High	High (Improbable)	Low	Low
Induced migration (-)	C	Regional	Short term	Low (Medium)	Medium	Probable (High)	Medium	Medium
Increased pressure on infrastructure and services (-)	C	Regional	Short term	Low (Medium)	High	Probable	Medium	Low
	O	Regional	Long term	Low	High	Probable	Medium	Low
Effects on health and safety (-)	C	Regional	Short term	Low (Medium)	Medium	Probable	Medium	Low
Potential increase in the spread of HIV/AIDS (-)	C	National	Short term	Medium	Medium	Medium (High)	High	Medium

<sup>10</sup> C = Construction. O = Operation.

<sup>11</sup> The ratings in brackets are prior to the implementation of mitigation or benefit enhancement.

## 8.6 Monitoring indicators

There are three broad issues, all of which are a combination of others, which overarch the majority of impacts outlined above. The following outlines simple monitoring indicators for these issues.

### *Employment opportunities and use of local contractors*

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- Number of people employed per employment category.
- Number of local people employed per employment category.
- Number of contractors using CDC's LMS, and the number of people from this service employed.
- Rand value per employment category and per local employee.
- Number of local employees trained.
- Number of local contractors used.
- Number of contractors using CDC's BMS, and the number of contractors from this service employed.
- Rand value of local contracts.

### *Disruption to tourism and aquaculture operations operating in close proximity to the proposed development*

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- Number of complaints documented in the complaints register.
- Nature of complaints documented in the complaints register.
- Actions taken to address these complaints.
- Feedback from aggrieved parties regarding the efficacy of resolving complaints.

### *Health and safety*

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- HIV/AIDS awareness as part of all contractor induction.
- Availability of HIV/AIDS awareness materials and condoms on site.
- Inclusion of road safety campaigns as part of contractor induction.
- Number of construction vehicles involved in accidents documented in the accident log.
- Number of private vehicles involved in accidents documented in the accident log.