## 7 SOCIO-ECONOMIC BASELINE

This Section describes the socio-economic environment in which the Project is situated. The description provided in this section is based on publicly available and secondary information, as well as primary data collected for the Project.

## 7.1 AREA OF INFLUENCE (AOI)

The socio-economic baseline description is focused on local level, i.e. within the Saldanha Bay Local Municipality, situated in the West Coast District Municipality. This is because it is expected that although the proposed Project will result in macro-economic benefits at a national level, the primary socio-economic impacts of the Project will be experienced at a district and local level.

The socio-economic area of influence has been divided into the Direct Area of Influence and the Indirect Area of Influence, these are described below.

### 7.1.1 Area of Direct Influence

The Area of Direct Influence, ADI, includes the Project footprint and related facilities as well as the associated effects of the Project on the receiving environment. This encompasses:

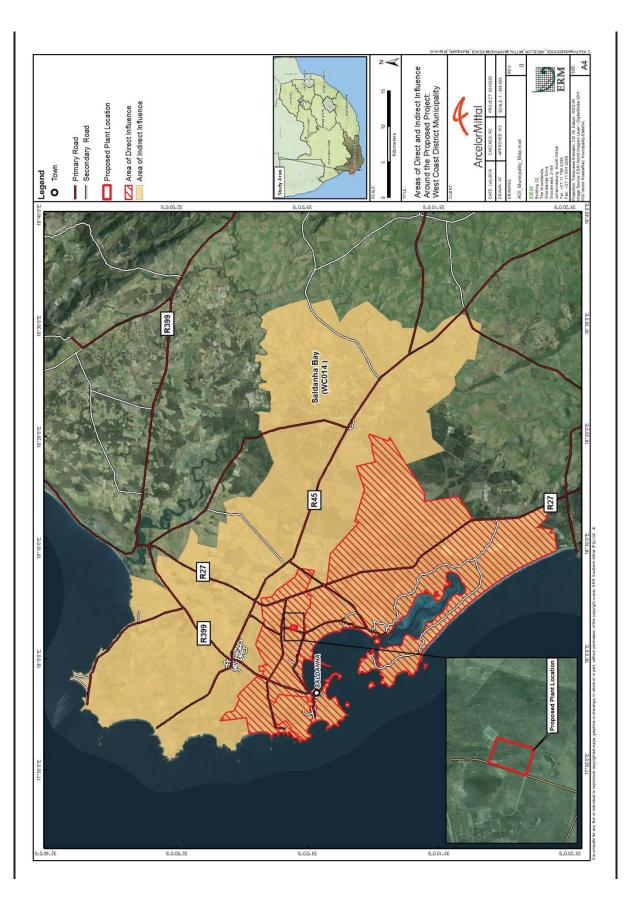
- The 45 ha CCGT Power Plant site;
- the 5 km pipeline route;
- the transmission line to Saldanha Steel.

In the context of this study, the ADI further includes areas around the site likely to be affected by the Project activities during the pre-construction, construction and operation phases. The effects can be positive or negative, short or long term or permanent, as well as direct and in-direct. These areas include the settlements located within close proximity to the Project site, namely, the greater Saldanha Bay area, in particular Ward 1, Ward 3, Ward 4, Ward 5 and Ward 6 (refer to *Figure 7.1*).

## 7.1.2 Indirect Area of Influence

The Area of Indirect Influence, AII, includes areas within a wider radius of the Project Site, which may be affected by the Project, this includes, although to a lesser extent, the remainder of the Saldanha Bay Local Municipality, particularly the town of Vredenburg, Ward 2, Ward 9, Ward 10 and Ward 13 (refer to *Figure 7.1*).

Figure 7.1



## 7.2 ADMINISTRATIVE STRUCTURE

The Project is in the Western Cape Province and the West Coast District Municipality (WCDM). The WCDM borders the Northern Cape District Municipality (NCDM) in the north and the Cape Metro District Municipality (CMDM) and Cape Winelands District Municipality (CWDM) in the south and south-east, respectively. The District Municipality has five local municipalities; namely Swartland, Bergrivier, Matzikama, Cederberg, and Saldanha Bay, and the Project site is located in the Saldanha Bay Local Municipality (SBLM) (see *Figure 7.2*). There are 13 Wards within the SBLM and the Project footprint falls within Ward 5.

The Provincial government is responsible for providing the strategic vision and framework for the Province. They are responsible for ensuring cooperation and collaboration between municipalities and that each municipality performs their respective functions. In turn, each of the District Municipalities is responsible for the preparation of Integrated Development Plans and for the overall provision of services and infrastructure within their District. *Figure 7.3* shows the administrative structure of the respective levels of government.

Figure 7.2 West Coast District Municipality Boundaries

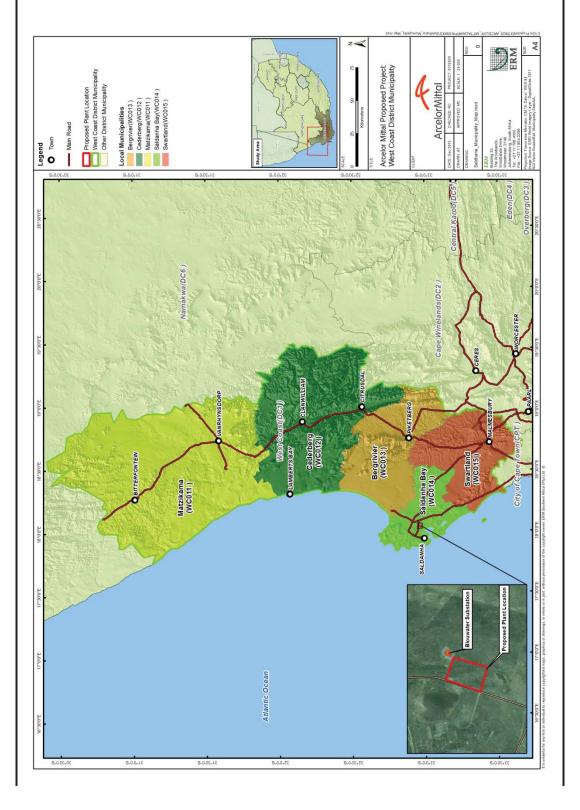
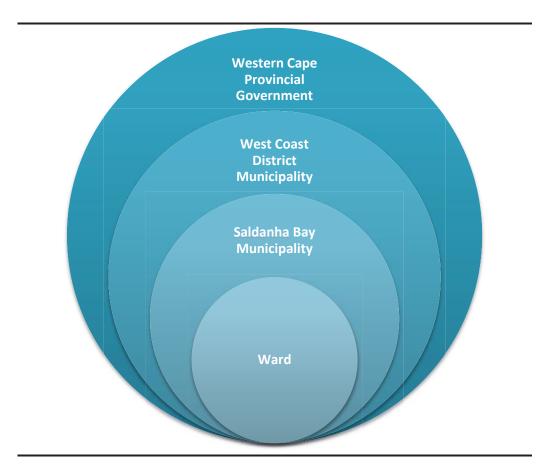


Figure 7.3 Administrative Structure



### 7.3 SITE SETTING AND LANDUSE

## 7.3.1 Land-use of the Project Site

The Project site is located on land currently owned by ArcelorMittal, less than 1 km to the east of the existing Saldanha Steelworks, immediately adjacent to the Blouwater substation. The site is vacant and is currently managed by Saldanha Steel for grazing. The site is not leased out to other farmers. The site is located within an area identified for industrial development according the Saldanha Bay Municipal Spatial Development Framework (2011).

The pipeline will traverse across land owned by ArcelorMittal until the Port boundary (where the Scope of this EIA ends).

The site is served by the existing road infrastructure. The access to the development is via TR 85/1 coming from the east off the R27 (TR 77/1). Provincial Road OP7644 abuts the site to the west and links TR85/1 to MR559. OP7644 is a two lane undivided rural roadway from which access to the site is provided opposite the Saldanha Steel entrance.

Figure 7.4 View of the Site

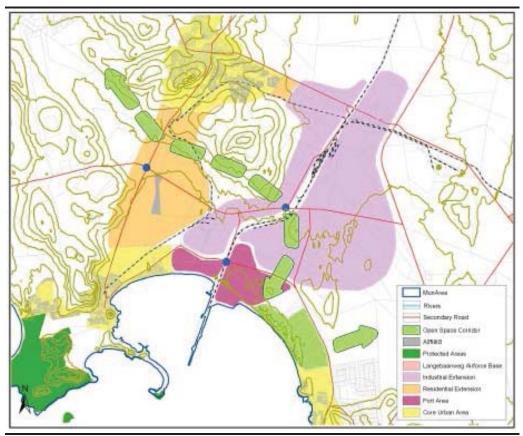


# 7.3.2 Surrounding Land-use

The Project site is located in an industrial area within Saldanha Bay. The land immediately surrounding the site it utilised for industrial purposes, grazing or is vacant land. Within the broader area, much of the surrounding land to the north and east is utilised for agriculture. The residential areas of Langebaan and Saldanha Bay are located approximately 7 km south and west of the site respectively, while Vredenburg is located approximately 8 km north-west of the site.

Surrounding industries include Saldanha Steel, a number of engineering companies with an oil and gas focus located in the IDZ, and the Port of Saldanha with associated infrastructure and terminals. The West Coast National Park is located approximately 15 km south of the site, and the SAS Saldanha Contractual Nature Reserve is located 12 km south west of the site. *Figure 7.5* shows the planned land-use zoning within Saldanha Bay.

Figure 7.5 Planned Land Use within Saldanha Bay Area



Source: Saldanha Bay Municipal Spatial Development Framework, 2011

The Saldanha Bay residential area is divided in to a number of sub-places, namely, Saldanha, Diazville (including Middlepos), White City and the Military Area. Diazville and White City are densely populated areas, with low cost, single unit dwellings on small stands. The population in these areas are predominantly lower income families. The population of Saldanha are predominately of middle to high income. The residential area of Langebaan and the surrounding sub-places consist largely of single unit residential homes and housing estates, many of which are second homes or rented out to accommodate tourists.

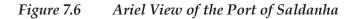
This pattern is replicated in Vredenburg, which is divided into Vredenburg, Louwville, Witteklip and Ongegund. Louwville, Witteklip and Ongegund are densely populated, with a population of a lower income bracket, while Vredenburg is comprised of middle to high income families.

## 7.3.3 The Port of Saldanha

The Port of Saldanha Bay is South Africa's largest natural anchorage. The Port developed into a modern harbour when it became necessary to facilitate the export of iron ore from the Northern Cape via an 800 km railway line from the mines at Sishen in the Northern Cape. The Port accepts vessels of up to 20.5 m

draught. The Port entrance channel is dredged to a depth of -23 m Chart Depth and a width of 400 m.

The total area occupied by the Port (land and water areas) is 18,300 ha and it has a 990 m long jetty containing two iron ore berths linked to the shore along a 3.1 km long breakwater. There is also an 874 m long multipurpose quay for the handling of breakbulk cargo. Between 2011 and 2012 the Port of Saldanha Bay handled a total of 528 ships with a total gross tonnage of 34,503,749-gt. In 2011/12 cargo handled by the port totalled 58,263,030 tonnes, of primarily iron ore but also oil.





#### 7.4 DEMOGRAPHIC PROFILE

The 2011 Community Survey notes that the population of the WCDM is estimated to be 391 758. The District occupies 19 percent of the total land area of the Western Cape Province and is sparsely populated with a population density of 13 people per square kilometre. Approximately 72 percent of the population lives in urban areas with the remaining 28 percent living in rural areas. The District is relatively urbanised and the rural areas are sparsely populated.

The SBLM has the second largest population (99,193 people) in the District area with the Swartland Municipality having the highest population (113 763). The population of the SBLM increased by 3.4 percent between 2001 and 2011 (StatsSA, 2011), greater than the predicted 2.2 percent growth expected in the Saldanha Bay Local Municipality, IDP, 2007/2008. Some 95 percent of SBLM

households are concentrated in urban areas with the remaining 5 percent living in rural areas (DEA&DP, 2012). This is the highest proportion of people living in urban areas as compared to the other Local Municipalities in the WCDM and well above the District average of 72 percent (StatsSA, 2011). The population density in SBLM is 49 persons per square kilometer which is significantly higher than that of the District Municipality (13 people per square kilometer).

The WCDM's population is composed of three ethnic groups, namely; Coloured, Black Africans and White Communities. The most dominant of these is the Coloured community (67 percent) while both White and Black African groups account from 16 percent of the population, as shown in *Figure* 7.7. Within the SBLM, the Coloured community account for 56 percent of the population, while Black Africans account for 24 percent and White people account of 18 percent of the population (StatsSA, 2011).

80 70 60 50 Percent ■ Saldanha Bay 40 Municipality 30 ■ West Coast District Municipality 20 10 0 Black Coloured Indian or White Other African Asian

Figure 7.7 Ethnic Composition in the WCDM and the SBDM

Source: StatsSA (2011)

The total population within the ADI is 37,866, and a breakdown thereof is provided in *Table 7.1* below. *W*hile the population is fairly evenly spread between the five wards, Ward 3 and 4 are significantly smaller than the other wards, indicating that the population density is highest within these two wards.

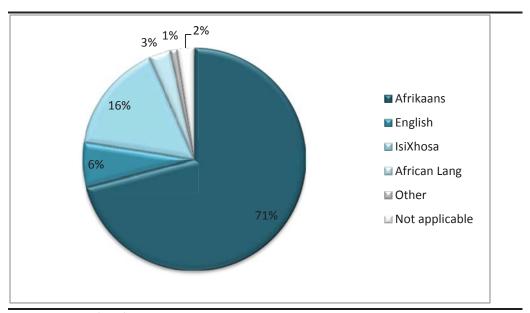
Table 7.1 Population with the ADI

Ward	Black African	Coloured	Indian or Asian	White	Other	Total Population
1	4 647	3 519	120	9	105	8 400
3	2 115	3 237	96	717	42	6 207
4	1 191	7 254	84	6	57	8 592

Ward	Black African	Coloured	Indian or Asian	White	Other	Total Population	
5	492	1 818	96	3 744	51	6 201	
6	630	2 931	39	4 749	117	8 466	
Total Popu	Total Population						

Afrikaans is the dominant language spoken in the SBLM, with an estimated 71 percent of the population being native speakers, isiXhosa is the second most commonly spoken language at 16 percent and English at 6 percent this is illustrated in *Figure 7.8*.

Figure 7.8 Language Spoken in the SBLM



Source: StatsSA (2011)

## 7.5 MIGRATION

The primary driver of migration is the search for employment and income, and the urban centres of the Western Cape attract many migrants as they provide a hub of economic activity. The agriculture sector dominates much of the WCDM, with populations highly dependent on agriculture for employment. The contraction of the agriculture sector in the WCDM resulted in notable job losses and although the agricultural sector remains a large employer (25 492 workers), the sector shed 19 786 between 2000 and 2013 (Western Cape Government, 2013). As a result, many people seeking alternative employment will gravitate towards larger urban centres, where there is perceived to be a greater prospect of employment opportunities.

The population of the SBLM increased by 3.4 percent between 2001 and 2011 (StatsSA, 2011), greater than the predicted 2.2 percent growth expected in the Saldanha Bay Local Municipality, IDP, 2007/2008, and this is likely due to an in-migration of job seekers. Saldanha Bay and Vredenburg, the major urban centres in the SBLM, will attract many of the migrants entering the SBLM as

they seek access to employment opportunities as well as social infrastructure and services.

#### 7.6 LIVELIHOODS AND ECONOMY

The WCDM contributed about 4.3 percent to the Western Cape's total GDPR (Regional Gross Domestic Product) in 2011 (Western Cape Government, 2013). The WCDM has experienced slow economic growth in the past five years. This can be attributed to the contraction in agriculture in some of the municipal areas, namely Bergrivier LM, Matzikama LM and Cederberg LM, as well as a struggling manufacturing sector, particularly in the SBLM, which was affected by the economic downturn. While jobs have been lost in the agricultural and manufacturing sectors, positive net employment was recorded in the services sector, with SBLM recording the highest number of new jobs in the service sector (Western Cape Government, 2013).

The agricultural, forestry and fishing sectors were the sectors that performed the best; contributing 16.8 percent to the GDPR of the WCDM. Sectors such as wholesale, retail trade catering and accommodation, and finance, insurance, real estate and business services had the lowest contribution to the GDPR of the West Coast Region at 3.7 percent and 3.4 percent respectively (Western Cape Government, 2013).

It is important to note that the SBLM differs significantly from the WCDM in terms of economic activity. The SBLM, being host to a large port, supports a more lively manufacturing and processing sector, and has developed the economic hub of the WCDM, supporting more business and commerce than the surround rural municipalities.

The SBLM contributed 33.9 percent towards the GDP of the WCDM. The key economic sectors for the SBLM are shown in *Table 7.2*. Collectively, these sectors contributed towards approximately 90 percent to the Local Municipality's economic output in 2011 (Western Cape Government, 2014).

These sectors are discussed further below.

Table 7.2 Contribution to the SBLM Economic Output 2014

<b>Economic Sector</b>	Percent Contribution to Economic Output
Finance, insurance, real estate and business	32
services	
General government	18
Manufacturing	13
Wholesale and retail, trade, catering and	10
accommodation	
Transport, storage and communication	9
Agriculture, forestry and fishing	8

Source: Western Cape Government (2014)

## 7.6.1 Manufacturing and Processing

The main contributors to the SBLM manufacturing sector are metal processing and food processing. The two sectors contributed 54.2 percent and 37.1 percent, respectively in 2009 (Demacon, 2009), and account for over 80 percent of the SBLM manufacturing sector. The high metals contribution is due to the exporting of metals from the Northern Cape mines for steel-manufacturing plants near the port of Saldanha. The contribution of the food processing is largely driven by the processing of products from the fishing industry. While the manufacturing sector enjoyed steady growth in the past (2,6 and 3,9 percent from 1995 to 2004), the sector has shown slow and negative growth since 2009, largely linked to the slump in the metals industry (Western Cape Government, 2014).

# 7.6.2 Wholesale and Retail Trade, Catering and Accommodation

This sector contributed 10 percent towards the SBLM's total GDPR, largely driven by the wholesale and retail trade sector. This sector has also been bolstered by positive growth in the tourism industry which is discussed in more detail below.

#### **Tourism**

Tourism is one of the fastest growing sectors of South Africa's economy with its contribution to the country's gross domestic product (GDP) reaching almost 12 percent in 2010. The tourism industry in the Western Cape contributes 14 percent to the total (GDP) of the Province and makes a significant contribution to economic development and jobs, thus being the most important growth sector in the Province.

The contribution made by tourism to the economy of the SBLM is included in the Wholesale and Retail Trade, Catering and Accommodation sector, which contributed 10 percent towards the SBLM's total GDPR. Tourism is recognized as sector of economic growth by the SBLM, and is seen to offer economic development potential to a large part of the local community, with the potential of a year round flow of tourists, and consequently, economic activity. Further, eco-tourism and agri-tourism are recognized as ways of supplementing the income of farmers.

The natural environmental is the primary attraction for tourists visiting the SBLM. There are numerous protected areas such as the SAS Saldanha Nature Reserve, West Coast National Park, and the West Coast National Fossil Park located in the SBLM (<a href="http://capewestcoastpeninsula.co.za">http://capewestcoastpeninsula.co.za</a>, accessed November 2015). Within these protected areas people can take part in activities such as gaming, whale and bird watching, and seeing wild flowers blooming in the winter and spring.

WCDM IDP cites a lack of funding as a major challenge for the development and marketing of the tourism sector in the District.

# 7.6.3 Transport and Communication

Transport and communication was the second-largest sector in the Saldanha Bay Municipality, contributing 9 percent to the total GDPR in 2011. The industry showed growth between 1996 and 2001, but has subsequently started to slow, if not retract (Demacon, 2009). This could be linked to the general slow-down in economic growth experienced by the SBLM since 2009. Transport activities included bus and tour-bus services, taxis, school buses, travel agents, the hiring of transport equipment and telephone and radio-communication services.

# 7.6.4 Agriculture, Forestry and Fishing

Between 1994 and 2004 the agriculture, forestry and fishing sectors combined contribution to GDPR increased from 10 percent to 11.9 percent, (Western Cape Government, 2006). However, this combined contribution decreased to 8 percent in 2011, supporting the notion that there has been a general retraction in the agricultural sector within the WCDM (Western Cape Government, 2014). Agriculture is the primary economic contributor in the rural municipalities of the WCDM, such as Bergrivier, Matzikama and Cederberg. The rural areas of the SBLM, north Vredenburg, rely on agriculture, whereas agriculture is not a key economic activity with the ADI.

The SBLM IDP recognizes that the agricultural sector faces challenges, and noted that to improve economic viability and sustainability of agriculture within the municipal area, it is important that the development and implementation of integrated approaches to natural resource management are adopted, and that farmers should consider alternative income generating activities, such as agro-tourism, conservancies and value add services.

In SBLM, mariculture industry and the fishing industry are important activities and are therefore, discussed further below.

#### Aquaculture

The aquiculture industry in Saldanha Bay consists of mussel and oyster (bivalve) growers, located predominantly in Small Bay with just one operator with an allocation in Big Bay. Farmers lease space from the Transnet Ports Authority and must obtain a permit to operate from the Department of Agriculture, Forestry and Fisheries (DAFF).

The bivalve industry currently employs approximately 130 people, of which 85 to 90 percent are factory workers or boat crew. Lack of a formal education is not a barrier to entry within the aquaculture sector, and according Olivier et al (2013), 75 percent of the workforce employed by the bivalve sector in Saldanha is educated to Grade 9 level or less, and a further 21 percent of

factory employees had passed matric (Grade12), (Olivier et al, 2013). The bivalve industry has provided employment for many people that have lost their jobs due to the decline in the fishing industry in Saldanha.

There are a number of emerging farmers operating in Small Bay who have branched off from the bigger operators. They have received support from bigger companies such as start-up capital. The emerging farmers are typically limited to Small Bay as they do not have the boats and skills to operate in the rougher sea of Big Bay.

Figure 7.9 Mussels seed themselves onto ropes suspended beneath rafts



Source: Dr Sue Jackson

# Fishing

There are well known national fishing companies that operate from Saldanha Bay, such as Sea Harvest and Southern Seas Fishing. While the fishing industry is well established in Saldanha, it showed slow growth between 2001 and 2009, (only 2.2 percent) (SBLM IDP) and continues to contract.

Figure 7.10 Fishing Boats Docked in the Port of Saldanha



### 7.7 EDUCATION

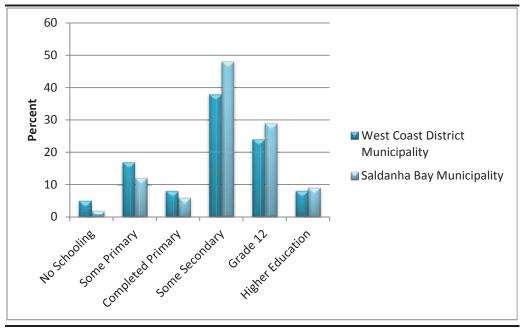
The WCDM has a total of 130 schools (primary and secondary schools). The literacy rate <sup>(1)</sup> in the WCDM is 79.1 percent (Western Cape Government, 2014), which falls short of the Provincial literacy rate of 87.2 percent. The teacher student ratio is 28 students per teacher.

SBLM has a total of 19 schools and the literacy rate is 86.7 percent. Similar to the WCDM, the levels of illiteracy are highest amongst those above the age of 14 years. The learner-educator ratio is 1:28.5, in line with that of the WCDM, (Western Cape Government, 2014). *Figure 7.11* below shows that overall the level of education is slightly higher in the SBLM than in the WCDM, with a slightly higher percent of people having obtained a Grade 12 or some level of higher education in the SBLM. The figure also shows that in both Municipalities a greater proportion of learners have completed some secondary schooling, while fewer that have completed Grade 12. Overall, the population within both municipalities is poorly educated, with just a small portion of the population having received higher education.

ENVIRONMENTAL RESOURCES MANAGEMENT

<sup>(1)</sup> The Department of Social Development defines people aged 14 years and older as literate if they have successfully completed 7 years formal education (passed Grade 7/Standard 5).

Figure 7.11 Levels of Education in the Local Municipality

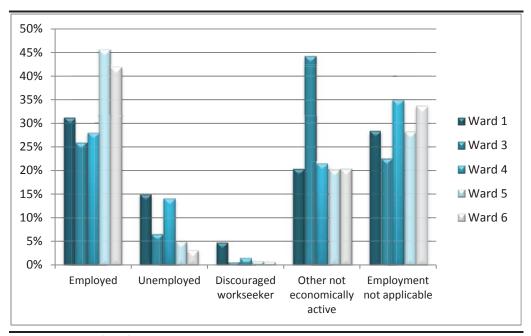


Source: Statssa, Census 2011

#### 7.8 EMPLOYMENT AND SKILLS

The unemployment rate in the WCDM was 14.6 percent in 2011. This is comprised of people who are unemployed but seeking employment, as well as those who are not seeking employment. The unemployment rate in the SBLM was higher than that of the District at 23.4 percent (Western Cape Government, 2014). *Figure 7.12* shows a breakdown of the employment status within the ADI. Wards 5 and 6 have the highest employment rates, while Wards 1 and 4 have the highest unemployment rates. Across all wards, the percentage of people who have stated either that they are not economically active or "that employment does not apply", is high. This indicates that a large portion of the population are not economically active and are either dependent on social grants, or others people for an income (such as students or the elderly).

Figure 7.12 Employment Status within the ADI



Source: StatsSA (2011)

Sectoral-employment data (2011) showed the following sectors as being the biggest employers in Saldanha Bay Local *Table 7.3.* Manufacturing is key employer in the SBLM, which is in contrast to the WCDM where agriculture, forestry and fishing are the major employment sector.

Table 7.3 Formal Employment by Sector in the SBLM 2014

Sector	Percent Employed
Manufacturing	24.2
Community, personal, and social services	20.4
Wholesale and retail trade; and catering and	15.1
accommodation	
Agriculture, forestry and fishing	14.2
Finance and business services	11.4

Source: CCA (2014)

The major employers in the fishing industry include companies such as Sea Harvest, Oceana, Southern Seas and West Point Processors. Within the Steel and mineral-processing companies (Manufacturing sector), the Saldanha Steel Project (ArcelorMittal SA), Namakwa Sands is the major employer.

#### 7.8.1 Skills Levels

The population of SBLM is typically engaged in occupations requiring a higher level of skills than that of the WCDM (West Coast District Municipality IDP, 2012 – 2016). According to the IDP, almost half the population of the SBLM has some skills, which implies that they have received some training in

the past. *Table 7.4* provides a comparison of the skills levels within the two populations.

Table 7.4 Comparison of Skills Levels between District and Local Municipality in 2012

Area	Highly Skilled %	Skilled%	Low Skilled%	Not Specified%
West Coast District Municipality	21.3	41.9	27.9	8.9
Saldanha Bay Local Municipality	28.5	49.3	12.1	10

Source: West Coast District Municipality (2012)

# 7.8.2 Income Levels and Poverty

Within both the WCDM and the SBLM, household income falls predominantly into the middle to low income categories. However, the SBLM does have a larger number of households in the higher income brackets which is likely linked to employment opportunities in skilled positions, as shown in *Table 7.5*.

Within the ADI, Ward 1 and 4 have a larger number of households in the lower income brackets, while Wards 5 and 6 have a larger number of households in the higher income brackets.

Table 7.5 Percentage of population per Average Household Income Bracket in 2011

	No income	R1-R4800	R 4801 - R 9600	R 9601 - R 19 600	R 19 601 - R 38 200	R 38 201 - R 76 400	R 76 401 - R 153 800	R 153 801 - R 307 600	R 307 601 - R 614 400	R 614 001 - R 1 228 800	R 1 228 801 - R 2 457 600	R 2 457 601 or more
WCDM	11%	2%	3%	14%	22%	19%	13%	9%	5%	1%	0%	0%
SBLM	14%	2%	4%	11%	17%	17%	15%	11%	6%	2%	0%	0%
Ward 1	22%	4%	6%	15%	22%	14%	10%	5%	2%	0%	0%	0%
Ward 3	7%	1%	3%	9%	16%	19%	20%	17%	6%	1%	0%	0%
Ward 4	8%	2%	5%	14%	24%	25%	17%	4%	1%	0%	0%	0%
Ward 5	8%	1%	1%	4%	7%	11%	18%	25%	17%	5%	1%	1%
Ward 6	18%	1%	1%	4%	8%	13%	18%	17%	14%	5%	1%	0%

Source: StatsSA (2011)

The SBLM has an estimated poverty rate of 23.9 percent. This is lower than the surrounding municipalities and that of the WCDM, which has a poverty rate of 30.4 percent.

#### 7.9 HEALTH

The WCDM has 76 medical facilities (26 clinics, 24 satellite clinics, 19 mobile clinics and seven district hospitals) (Western Cape Government, 2014). Some of the challenges encountered by the Health Department in the WCDM are the poor/insufficient physical infrastructure, overcrowded primary healthcare facilities and insufficient numbers of skilled health workers in the region.

The most common illnesses affecting communities are infectious diseases such as HIV/Aids and TB, as well as chickenpox and measles amongst children. The SBLM has the lowest number of antiretroviral treatment (ART) clinics/treatment sites in the WCDM, which is of concern considering it has the heaviest ART patient load in the WCDM (1,779 patients in March 2014, up from 1,435 patients in 2013) (Western Cape Government, 2014).

There has been a general increase in the numbers of teenage pregnancies recorded in the region; the increase in teenage pregnancies is potentially linked to poverty in the area. Violence and substance abuse are also common in the District leading to increased pressure on the local health services (West Coast District Municipality, 2009).

SBLM has 14 medical facilities (8 clinics, 3 satellite clinics, 2 mobile clinics and 1 district hospital) (Saldanha Bay Municipality, 2012). According to the IDP, nine doctors and 59 professional nurses have been employed by the Department of Health to render health services to patients attending the health facilities in Saldanha Bay <sup>(1)</sup>. This indicates that there is high number of patients compared to the nursing staff available to service the patients' medical needs.

The most common illnesses are HIV/Aids and TB; this is similar to the District level. The HIV/Aids prevalence in the District was 4.3 percent in 2005 and it was expected to increase to 5.5 percent by 2010 (West Coast District Municipality, 2006). There is a relationship between the high prevalence of TB and HIV/Aids.

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 $<sup>(1) \</sup> Note that these totals exclude health professionals employed within the private sector.\\$ 

### Figure 7.13 Saldanha Health Clinic



### 7.10 SOCIAL INFRASTRUCTURE AND SERVICES

### 7.10.1 *Water*

In the SBLM, 99.2 percent of the population has access to piped water; households that have access to water inside their homes, from outside taps on their properties and from communal taps (Western Cape Government, Socioeconomic Profile Saldanha Bay Municipality, 2014).

The WCDM provides bulk potable water to the Saldanha Bay Municipality through the Misverstand Scheme which is part of the Berg River – Saldanha supply system (EMF, 2015). Water is obtained from both surface water (Berg River) and groundwater (Langebaan Road Aquifer) for the Misverstand Scheme. This scheme supplies the Saldanha Bay municipality and some of the towns in the Berg River municipality (EMF, 2015).

Water demand in the SBLM increased significantly with the establishment of a number of industries over the past 30 years (EMF, 2015). This is attributed to the development of the Port and associated infrastructure. According to the IDP Review, industrial water users account for approximately 50 percent of potable water use within the Saldanha Bay municipal area (EMF, 2015).

There are plans to construct a desalination plant in Saldanha Bay to supply additional water to the local area (WCDM IDP, 2012).

## 7.10.2 Sanitation

The WCDM has provided 92 percent of households with adequate sanitation. Compared with the District Municipality, the SBLM has provided 96.2 percent of its households with adequate sanitation facilities (Western Cape Government, 2014).

*Table 7.6* below illustrates the existing wastewater treatment plants operated by the Saldanha Bay Local Municipality. In addition, it is important to note that a regional Waste Water Treatment Works (WWTW) is proposed for the SBLM, which will service the proposed industrial areas within Saldanha.

Table 7.6 Wastewater Treatment Plants in the Saldanha Bay Municipality

Responsible Municipality/ Organization	Name Of WWTW	Water Disposal Method	Technology Being Used
Saldanha Bay LM	Sandy Point (Shelly Point	Irrigation, 100 % Re-use	Package plant, Activated sludge
Saldanha Bay LM	Paternoster	Irrigation	Oxidation pond (lined)
Saldanha Bay LM	Laingville (St Helena Bay)	Irrigation, 30 % Re-use	Activated sludge, Maturation ponds, Disinfection
Saldanha Bay LM	Hopefield	Irrigation, 100 % Re-use	Activated sludge, Maturation ponds
Saldanha Bay LM	Langebaan	Irrigation, 100 % Re-use	Oxidation pond (lined), Activated sludge, Maturation ponds, Disinfection
Saldanha Bay LM Saldanha Irrigation		Irrigation, 100 % Re-use	Oxidation pond (unlined), Activated sludge, Maturation ponds, Disinfection
Saldanha Bay LM Vredenburg Wate		Watercourse, 50 % Re-use	Oxidation pond (lined), Activated sludge, Maturation ponds, Disinfection

Source: DWA (2009)

#### 7.10.3 *Waste*

SBLM dispose of all waste at the licensed Vredenburg landfill and a number of drop-off facilities are provided at various communities (WCDM, 2014). There is also a Materials Recovery Facility at the Vredenburg landfill. In addition, any hazardous material can be discarded at the Visserhoek Disposal facility. Finally, it is important to note that a regional waste disposal facility has been planned to be constructed in Vredendal (WCDM, 2012).

## 7.10.4 *Housing*

There is a wide variety of housing in the SBLM, from low cost housing to luxurious holiday homes. Wards 5 and 6 typical have larger houses, while Wards 3 and 4 consist of low cost housing.

There has been a slow delivery of housing in the WCDM and SBLM. Although 2,535 households gained access to housing for the first time since 2007, the number of households on the waiting list for housing is currently estimated at 8,179 and the number of households affected by the housing backlog is 6,730 (Saldanha Bay Local Municipality IDP, 2012). The housing backlog has been increasing steadily since 2001, when it was 2,836.

According to the 2006 West Coast Socio-Economic Profile, the slow pace of housing delivery was attributed to the constantly changing settlement patterns resulting from in-migration.

## 7.10.5 *Energy*

Within the SBLM the proportion of households using electricity for lighting has increased in the Municipality from 91.6 percent during the 2001 Census to 97 percent in 2011 (StatsSA, 2011). Even though an increase was seen in the number of households having access to electricity, 92 percent of households use electricity for cooking purposes, and the other 8 percent use gas or paraffin (StatsSA, 2011).

#### 7.10.6 Roads

The WCDM has approximately 10 097 km of road, (West Coast District Municipality, 2012). The roads are maintained by the WCDM on behalf of the Western Cape Provincial Department Transport and Public Works.

The SBLM has 410 km of tarred Municipal roads and 48, 24 km of gravel roads (excluding private farm roads), and the roads are generally of poor quality. There is a backlog in the SBLM relating to road maintenance, and it is noted in the IDP that 548 households did not have access to a road from their dwelling (Saldanha Bay Local Municipality, 2012)

## 7.10.7 *Policing and Crime*

There are 26 police stations in the WCDM. These are evenly distributed across the local municipalities, with five in each local municipality. This distribution does not account for the geographic extent or the population size of each local municipality. There are police stations in all the major towns within the SBLM which service the town and the rural surroundings (Saldanha Bay Local Municipality, 2012). The most prolific crimes committed in the SBLM are "burglaries at residential premises" and 'drug-related crimes" with 995 and 828 incidents being reported in 2013/14 respectively. Crime statistics across all

categories increased from 2010 to 2013, but have subsequently started to decrease again (refer to *Table 7.7*). At this stage the reason for this is unclear.

Table 7.7 Crime in the SBLM between 2009 and 2014

Type of Crime	2009/10	2010/11	2011/12	2012/13	2013/14
Burglary at	792	787	1 018	1 225	955
residential					
premises					
Driving under	262	194	161	148	137
the influence of					
alcohol or drugs					
Drug-related	1 138	1 071	1 006	1 013	828
crime					
Murder	35	33	21	29	25
Total Sexual	154	132	134	147	123
Crimes					

Source: Western Cape Government (2014)

#### 7.11 CULTURAL HERITAGE

The West Coast gained prominence, from quiet coastal village better known for its fishing villages and grain-producing farms, to world heritage locality of international repute, with the discovery of one of the richest deposits of fossils in the world. The bones of over two hundred different kinds of animals have been recovered in the area (Potgieter, 1972). These fossils are now preserved in the West Coast Fossil Park, near Langebaan. The 14 ha Park lies on the R45 close to the Langebaanweg Air Force Base, roughly 14 kilometres ENE of the site under review. Stone Age artefacts and remains of the indigenous Khoikoi are also widespread, which makes it imperative that palaeontological, geological and cultural heritage surveys be undertaken to record and preserve the rich heritage of the region.

## 7.11.1 Archaeological Background

There have been numerous field assessments of the Saldanha Bay area during the course of the last 20 years. Kaplan (1996) recorded a scatter of MSA and LSA stone artefacts during his survey for the proposed Saldanha Steel facility. Orton (2011) noted, during his survey for the Isivunguvungu Wind Farm to the south of the ArcelorMittal site, that no significant archaeological remains were recovered. Orton (2011) undertook a survey for a possible pipe line for the Mass Oil and Gas Services (MOGS) and reported finding a single calcrete flake of unknown origin and has thus considered the archaeological significance of the area to be very low.

Saldanha Bay, which was named by the Dutch after Antonio de Saldanha who visited the Cape in the early 1500's, has since its discovery been used as a safe anchorage by virtually every sea going nation who had trading interests in the east. The bay shores were never permanently settled in any meaningful way until quite late in the history of the Cape.

#### 7.11.2 *Cemeteries and Graves*

Burials in the later Stone Age occurred anywhere and typically in the sandy substrate. This is due to people being buried very close to where they died and this has thus led to many burials being reported from the Saldanha coast and in the adjacent hinterland (Morris 1992).

## 7.11.3 Palaeontological Background

In recent years the area has become famous for its fossil wealth - just inland of Langebaan is the largest Pliocene-Miocene (5-6 million years old) fossil deposit in the world, parts of which are on display at Langebaanweg Fossil Park. This material was deposited in sandbar sediments at the mouth of the proto-Berg River (an ancient river and estuary that was the precursor to the Berg River), the course of which changed over the millennia in response sea level changes. On the edges of the lagoon Dr Dave Roberts and Dr Lee Berger discovered the 200 000 year old footprints of an early modern human fossilized in calcrete sediments. At Hoedjiespunt Prof. John Parkington has excavated on the site of an ancient hyena lair where skull fragments and teeth of an early human were found. Nearby, fossilized within the calcretes and aeolianites are shell fish, animal bone, ashy hearths of people who lived in the area more than 100 000 years ago. A further find at Spreeuwalle between Paradise Beach and the ore terminal has been investigated by Dr G Avery and Mr D Halkett, but unfortunately most of the material lies below sea level as the site dates to a time when sea levels were lower than that of today.

## 7.11.4 Findings

The area surveyed is observed to have been extensively disturbed by agricultural practices, which have left large heaps of calcrete blocks deposited on the edges of the old fields. No palaeontological or Pleistocene archaeological remains were observed on the surface whilst there were also no pre-colonial archaeological sites found. There are also no structures of significance within the study area with the exception of a recently modified building located outside of the proposed activity.

No graves or stone cairns were found during the survey. The location of the power plant is an industrial landscape, adjoining the steel works site and ideally suited to the proposed development.