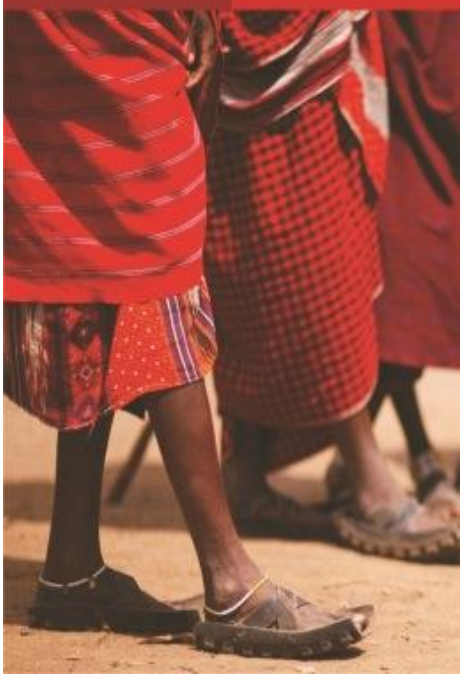

DIGBY WELLS
ENVIRONMENTAL

Environmental Impact Assessment for proposed Future Developments within the Sun City Complex

Socio-Economic Impact Assessment Report

Project Number:

SUN4642

Prepared for:

Sun International (Sun City Resort)

September 2018

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This document has been prepared by Digby Wells Environmental.

Report Type:	**Socio-Economic Impact Assessment Report**
Project Name:	**Environmental Impact Assessment for proposed Future Developments within the Sun City Complex**
Project Code:	**SUN4642**

Name	Responsibility	Signature	Date
Nonka Byker	Report Writer		28 August 2018
Jan Perold	Reviewer		1 September 2018

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I, Nonka Byker, as duly authorised representative of Digby Wells and Associates (South Africa) (Pty) Ltd., hereby confirm my independence (as well as that of Digby Wells and Associates (South Africa) (Pty) Ltd.) and declare that neither I nor Digby Wells and Associates (South Africa) (Pty) Ltd. have any interest, be it business, financial, personal or other, in any proposed activity, application or appeal in respect of Sun International, other than fair remuneration for work performed, specifically in connection with the proposed Future developments within the Sun City Complex.

_____

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EXECUTIVE SUMMARY

Sun City is proposing various projects that will serve to expand the resort and service and maintain aging infrastructure. The proposed projects have been divided into three categories, being Resort Expansion Projects (REP), Utilities and Services Projects (USP) and Maintenance Projects (MP).

The Resort complex is bordered by the R556 road in the south and the Pilanesberg National Park in the north and east. The community of Ledig is located immediately south-west of the Sun City Property.

This report details the result of the Socio-Economic Impact Assessment (SIA) that forms part of the EIA process. The SIA assesses socio-economic impacts associated with the development of the various proposed projects and builds on the SIA Scoping Report (SIASR, completed in January 2018).

The approach taken for this SIA adopted the following definition of a **social impact assessment**: *"… the process of analysing (predicting, evaluating and reflecting) and managing the intended and unintended consequences on the human environment of planned interventions (policies, programmes, plans and projects) and any social change processes invoked by those interventions so as to bring about a more sustainable and equitable biophysical and human environment*" (Vanclay, 2002).

The assessment of socio-economic impacts was categorised as per the following change processes:

- **Demographic processes**: changes and impacts related to the composition of local communities;
- **Economic processes**: changes and impacts on the way in which the local people make a living and the economic activities in the society;
- **Geographical processes**: changes and impacts on land use patterns;
- **Institutional and Legal processes**: changes and impacts that affect the efficiency and effectiveness of local authorities; and
- **Socio-cultural processes**: changes and impacts that affect the culture of the local society, i.e. the way that people live together.

The discussion of each impact is structured as follows:

- Description of the expected change(s) to the baseline profile and resultant impact(s);
- Description of mitigation or augmentation measures to minimise or avoid negative impacts and enhance positive ones; and
- A table presenting the rating of an impact, summarising the recommended mitigation/augmentation measures, repeating the rating exercise after the application of mitigation/augmentation to determine the effectiveness thereof.

The pre- and post-mitigation ratings assigned to the various impacts discussed in the report are summarised in the table below.

From this summary, it is evident that the construction phase is mostly characterised by negative impacts – but these are largely due to the types of activities that take place during this phase and because the construction phase is limited to around 5 years, expected to be mostly temporary in nature. None of these negative impacts are considered irreversible or expected to cause irreplaceable damage to the socio-economic environment.

The operations phase, on the other hand, is characterised by more positive impacts that are also expected to last for the duration of project life (i.e. the operational lifespan of Sun City). These impacts mostly related to the sustainable development of not only the local economy (through Sun International's CSI programme), but also the region as a whole (through an increase in the national tax base). Therefore, the impacts of the construction phase that are short-term and mostly limited to the local area, will be outweighed by the more longer-term, widespread positive impacts of the operational phase. Adequate mitigation measures are expected to reduce the significance of negative impacts to acceptable levels, while positive impacts will be enhanced in order to maximise benefits to surrounding communities.

It is recommended that the mitigation measures described in the report be incorporated into the Environmental Management Programme for the proposed Sun City expansion projects and, where relevant, into the contract conditions to be issued to the contractors. Measures should also be put in place to monitor and assess the implementation of these mitigation measures and to take corrective action where necessary.

Change Process	Impact	Pre-Mitigation					Post-Mitigation				
		Duration	Extent	Intensity	Probability	Significance	Duration	Extent	Intensity	Probability	Significance
CONSTRUCTION PHASE											
Economic	Labour drawn down from agriculture sector	Long term	Municipal	Moderate	Probable	Minor negative	Medium term	Municipal	Minor	Unlikely	Negligible negative
	Potential negative impact on other business activities	Medium term	Limited	Moderate	Likely	Minor negative	Medium term	Isolated	Minor	Probable	Negligible negative
	Employment and income creation	Medium term	Municipal	Moderate	Highly probable	Minor positive	Long term	Municipal	Moderate	Highly probable	Moderate positive
	Tax income	Medium term	National	Average	Certain	Moderate positive	Medium term	National	Average	Certain	Moderate positive
Geographic	Conversion and diversification of land use	Medium term	Local	High	Almost certain	Minor negative	Medium term	Limited	Moderate	Probable	Negligible negative
Institutional and Empowerment	Increased demand for housing and other municipal services	Long term	Local	Moderate	Probable	Minor negative	Medium term	Limited	Minor	Unlikely	Negligible negative
Socio-Cultural	Risk for social disintegration and conflict	Medium term	Local	Moderate	Probable	Minor negative	Medium term	Limited	Minor	Unlikely	Negligible negative
	Nuisance factors	Medium term	Limited	Low	Likely	Minor negative	Medium term	Isolated	Minor	Unlikely	Negligible negative
OPERATIONAL PHASE											
Economic	Employment and income creation	Project life	Municipal	Widespread benefits	Highly probable	Moderate positive	Project life	Municipal	High	Highly probable	Moderate positive
	Tax income	Project life	National	Average	Certain	Moderate positive	Project life	National	Average	Certain	Moderate positive
Institutional and Empowerment	Increased demand for municipal services	Project life	Municipal	Moderate	Unlikely	Minor negative	Project life	Local	Minor	Improbable	Negligible negative
	Corporate social investment	Project life	Local	Low	Likely	Minor positive	Project life	Province / region	High	Likely	Moderate positive

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1 Introduction

Digby Wells Environmental (hereafter Digby Wells) has been appointed by Sun City Resort (hereafter Sun City) to undertake an Environmental Impact Assessment (EIA) for the proposed future developments within the Sun City Resort Complex located near Rustenburg, North West Province.

Sun City is proposing various projects that will serve to expand the resort and service and maintain aging infrastructure. The proposed projects have been divided into three categories, being Resort Expansion Projects (REP), Utilities and Services Projects (USP) and Maintenance Projects (MP). These are discussed in more detail in Section 2.3.

This report details the result of the Socio-Economic Impact Assessment (SIA) that forms part of the EIA process. The SIA assesses socio-economic impacts associated with the development of the various proposed projects and builds on the SIA Scoping Report (SIASR, completed in January 2018).

The approach taken for this SIA adopted the following definition of a **social impact assessment**:

"… the process of analysing (predicting, evaluating and reflecting) and managing the intended and unintended consequences on the human environment of planned interventions (policies, programmes, plans and projects) and any social change processes invoked by those interventions so as to bring about a more sustainable and equitable biophysical and human environment" (Vanclay, 2002).

In light of this definition, this study made a distinction between **change processes** and **impacts**. The latter refers to the effects that a Project might have on people on either a physical (e.g. health) or cognitive (e.g. fear) level, whereas the former relates to the possible causes of an impact (e.g. a temporary influx of people).

1.1 Summary of the SIASR findings

The SIASR involved the compilation of a social baseline profile and to identify possible changes and preliminary impacts that may arise as a result of the Sun City developments. The findings of the SIASR are summarised in Table 1-1 and serve as the backdrop for the more detailed impact assessment of the current phase.

Table 1-1: Summary of findings in the SIASR

Project Phase	Expected Changes	Related Impacts
Construction	Project-induced in-migration: • Formal influx of construction teams • (Unintended) influx of job seekers	• Increased demand for housing and municipal services • Increase in HIV rate • Increase in crime • Social conflict

Project Phase	Expected Changes	Related Impacts
Construction	Employment and income creation	• Economic impact
Construction	Nuisance factors	• Health and safety impacts
Operations	• Employment and income generation • Increased tax income	• Direct employment • Flow-on employment • Direct income impacts • Flow-on income impacts • Impacts on economic stability of the local area
Operations	Change in sense of place	• Impacts on place attachment

1.2 Summary of Issues and Comments

A summary of issues and comments received from stakeholders via the public participation process, as they relate to the socio-economic environment, are listed in Table 1-2. The table also indicates where these issues and concerns were considered in the SIA.

Table 1-2: Summary of issues and concerns related to the socio-economic environment

Stakeholder	Comment	Reference in SIA
HM Mosito, Ledig resident	Interested in the overall project impact on the Ledig community and especially business opportunities for the youth in the area.	Sections 5.2.1.3, 5.2.1.4, 5.2.2.1, 5.2.2.2, 5.4.1.1, 5.4.2.1, 5.4.2.2 and 5.5.1.1
GA Sedumedi	Are there any sub-contractors for the local companies?	Sections 2.4 and 5.2.1.3
D Tlapu, Director: Capacity (local SMME)	As a local start-up company, wanted to be kept informed of business opportunities for small companies to partner with larger contractors to gain experience. An independent facilitator should be appointed to assist with job allocations as a community-based CLO would be perceived as being biased and corrupt (e.g. allocating jobs to friends and family only). In this regard, he suggested a rotation system for job allocations to ensure that all local job seekers benefit from the project equally.	Section 5.2.1.3
J Klitzner, Waterworld	Sun City Waterworld is located near the	Section 5.2.1.2

Stakeholder	Comment	Reference in SIA
	recreational beach expansion project (REP 5) and as such they expect a negative impact on their revenue stream during construction and after, resulting in possible job losses.	

2 Project Description

2.1 Introduction

The Sun City Resort complex was developed by the hotel magnate Sol Kerzner as part of his Sun International group of properties. Sun City was officially opened on 7 December 1979.

The Resort comprises four hotels (the Soho Hotel, Cascades Hotel, Cabanas and The Palace of the Lost City Hotel), including entertainment area named Sun Central and Casino, and a timeshare scheme (Vacation Club) as well as two international standard 18-hole Golf Courses, various swimming pools and recreational areas including the “Valley of Waves”.

2.2 Project Location

The Sun City Resort is located on property that is leased from the National Department of Rural Development and Land Reform. The total lease area comprises 3,400 hectares (Ha). The areas actively being managed and used by Sun City Resort comprises three Zones, as follows:

- Area A: 492 ha – between the Resort and the town of Ledig;
- Area B: 597 ha – the developed area comprising Sun City Resort complex; and
- Area C: 469 ha – area used by Mankwe Gametrackers.

The Resort complex is bordered by the R556 road in the south and the Pilanesberg National Park in the north and east. The community of Ledig is located immediately south-west of the Sun City Property.

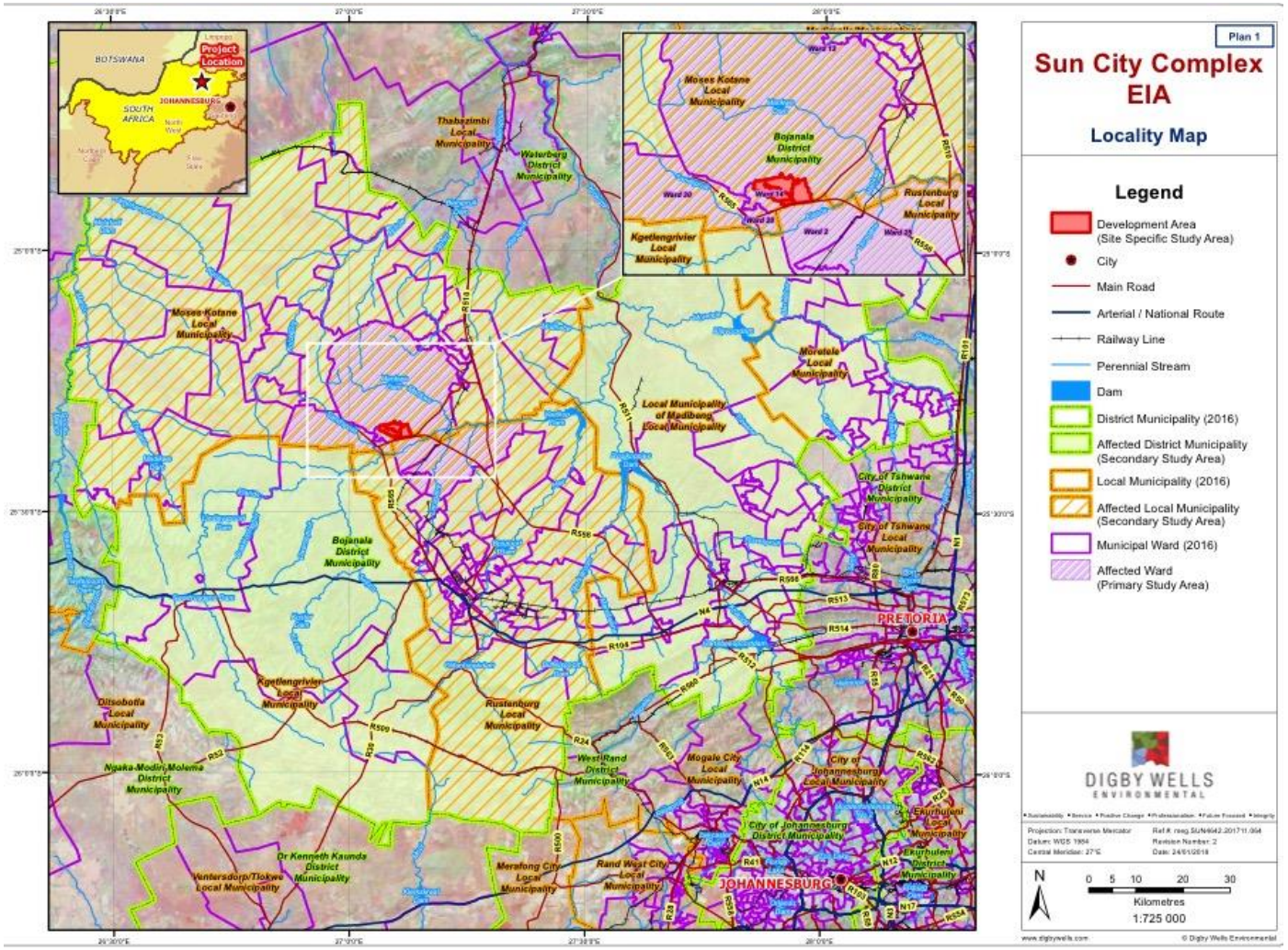

Table 2-1: Location of Sun City within the Project Area

2.3 Project Infrastructure

The following expansion and maintenance projects are envisaged in the following ten to fifteen years at the complex:

Table 2-2: Summary of Projects

Project Name	Project Description	Phasing/Duration
Resort Expansion Projects (REP)		
REP1: Eco-Lodge	Development of a Bush Lodge / Eco-Lodge at Gary Player Country Club Workshop consisting of 20 to 25 Lodges of 4 to 5 bedrooms each (i.e. accommodation for between 80 and 125 people). Electricity supply to the Bush Lodge will be via a new 11MVA line from GPCC Workshop. Water supply to the Bush Lodge will be from GPCC Workshop via a 50mm diameter pipeline. Sewage will be conveyed to the new WWTW (see USP5). Domestic Waste Collection areas will be included in the detail design. Domestic waste will be collected from the Bush Lodge by Sun City Waste Management contractor and conveyed to the new Waste to Energy Plant. Access to the Bush Lodge Site is via the existing golf course Road.	Construction of the Eco Lodges will take approximately 12 months. This is not considered a priority project for the resort and is anticipated to be implemented towards the end of the 15-year Project development schedule.
REP2: Driving Range Road	Construct a Road to connect the Driving Range at Lost City Golf Course (LCGC) to the Gary Player Golf Course (GPGC) via the Palace garden road and Valley of Waves (VOW) road. The road will be approximately 2.5 m wide and 900 m in length and will have a paved surface.	Construction of the golf-cart path is not anticipated to exceed three months. This is a priority project for Sun City and is anticipated to be scheduled in the first five years of the Project development schedule.
REP3: Kwena Gardens Expansion	Construct 20 additional Rustic Chalets at Kwena Gardens. The new chalets will be based on the same design principles as the existing chalets	Construction of the additional chalets is not anticipated to exceed 18 months.

Project Name	Project Description	Phasing/Duration
	and will also be able to tie into the existing water, electricity and sewer infrastructure. Each chalet will accommodate between 2 and 4 people allowing for a maximum of an additional 80 guests. The access road to the existing chalets will be extended past the current development and a new parking lot will also be constructed to service the additional accommodation facilities. The expansion will also mean that the existing staff facilities may have to be relocated. These facilities will however remain within the Kwena Gardens Development footprint, closely associated with the Rustic Chalets.	This is considered a priority project, currently planned for implementation in mid-2020.
REP4.1: Vacation Club (VC) Phase 3	Phase 3 will comprise a total of 150 units which will include simplex units, two-bedroom and three-bedroom units. This will increase the VC capacity by a maximum of an additional 1,000 guests, as follows: ■ 100 x 2 bed units, plus 2 additional people per unit on sleeper couch = 600 people ■ 50 x 3 bed units plus 2 additional people per unit on sleeper couch = 400 people VC Phase 3 will tie in to existing infrastructure (water, power, sewer) but will necessitate the development of additional access roads and parking areas as well as the construction of a new restaurant. The site that has been identified for VC Phase 3 expansion currently houses the helipad, which will have to be relocated (see REP6).	Construction of VC Phase 3 is anticipated to be complete within 24 months. This is a priority project earmarked for 2020.
REP4.2: VC Phase 4	Upon completion of the VC Phase 3 development, Sun International intends to develop VC Phase 4. Similar to the Phase 3, the development will comprise a total of 150 units which will include simplex units, two-	Construction of VC Phase 4 is anticipated to be complete within 24 months.

Project Name	Project Description	Phasing/Duration
	bedroom (100 units) and three-bedroom units (50 units) resulting in additional capacity to accommodate up to 1,000 guests. The VC Phase 4 area occupies a total footprint of 82 ha and is located between the decommissioned landfill site and Bakubung Gate. This area falls within the undeveloped area of the resort which is not fenced, therefore fencing of this area will be required as part of its establishment. VC Phase 4 will require infrastructure for municipal services namely water, power, sewer and additional access roads. It is however noted that there is a private water line (Bakubung water line) which the area could possibly tie into.	
REP5: Recreational Lake Beach Expansion	One of the Water Theme Parks at the Sun City Resort, known as Waterworld, is associated with the Sun City lake and provides action-oriented facilities such as parasailing, wakeboarding, water-skiing, bumper boats and land-based activities including jungle-gyms and an artificial beach. Sun City proposes to expand the facilities at Waterworld to include an additional swimming pool and enlarge the beach area, to accommodate more visitors to this section of the Resort.	Expansion of these facilities can be completed within six months. This is not considered a high-priority Project and is likely to be implemented in year 5 of the Project development schedule.
REP6: Helipad relocation and expansion	Sun City Proposes to move the Helipad to the roof of the Palace Parking Garage and increase its capacity. The existing Helipad footprint is 0.6 hectares. The footprint area cannot increase dramatically due to the size of the Parking Garage Roof restricting the maximum size. The proposed new Helipad will not exceed 1 hectare. Access to the Helipad and parking bays by road will be provided from “Elephant Circle”.	This will coincide with the VC Phase 3, as the existing Helipad has to be relocated before VC Phase 3 can be constructed.

Project Name	Project Description	Phasing/Duration
REP7: Additional Parking Garage, Convention Centre and Hotel	To further expand the capacity of the Sun City Resort it is proposed to construct an additional parking garage, Convention Centre and Hotel (250 rooms) at the existing parking lot between The Cascades and Sun City Hotels.	Construction of this project should not exceed two years period. The Project is earmarked to commence in 2022.
REP8: Soccer Fields	A motocross grand prix track was constructed at Sun City near the Main Entrance and Warehouse, to house the 2005 Motocross World Championships. Today the track still remains but is in disuse due to lack of interest from visitors to the Resort. Sun City now proposes to construct two soccer fields on this site for use by the local soccer clubs.	Establishment of the soccer fields will not exceed 6 months. This project is anticipated to be implemented in 2020.
Utilities and Services Projects (USP)		
USP1: Storm water culverts at Golf Course Roads	Existing Service Roads allow fence inspections by security throughout the complex, and especially along the northern boundary with Pilanesberg National Park. North of the LCGC and north of the GPGC, these service roads cross watercourses by means of “low water bridge” structures. During and after rain events, these roads become completely flooded (impassable) and in significant rainfall events wash away significantly. Sun City proposes to install storm water pipes or culverts underneath these roads to allow rainwater to pass underneath the roads, thereby protecting the road integrity as well.	Construction of the culverts should not exceed 1 month. This is considered a priority project and is anticipated in 2019. It is imperative that this project is scheduled for construction during the dry season.
USP2: Additional Reservoirs to Supplement existing water storage capacity	To supplement existing water storage capacity at the resort complex, Sun City proposes to construct additional reservoirs. Two options are currently being considered: Construction of two Reservoirs of 10Mℓ capacity each, or the construction of one 20Mℓ Reservoir (total capacity therefore 20,000 cubic metres).	Reservoir and associated pipeline construction are not anticipated to exceed 12 months. The project is a priority for Sun City and is currently scheduled for 2020.

Project Name	Project Description	Phasing/Duration
USP3: Effluent transfer line replacement	Currently there is an old asbestos effluent (Greywater) transfer line through Sunset Drive to Hole 2. This line will be decommissioned (shut down) but remain in place. A new line will then be installed against the fence of Letsatsing, east of the Lake. Pipe diameter is planned to be 250mm. The entire Project footprint comprises 11,420m^2. The pipeline length is 3000 metres and the servitude width vary between 2 metres and 5 metres. The maximum throughput will be 25 l/s.	It is anticipated that construction of the new line will take approximately 6 months. The Project is earmarked for implementation in 2019.
USP4: Sunset-Sky-train Fresh Water Line	Construct a main water line from the Welcome Centre to Sky-train (pipe will be attached to the Sky-train route). The pipeline will be a total length of 700 m and have a diameter of 250 mm.	The project is not anticipated to exceed 6 months and is considered a priority project, scheduled for implementation in 2019.
USP5: Ledig Sewer Line decommissioning, New WWTW for VC and Palace	There is an old asbestos sewer line from the Sun City complex that runs on the property boundary through the north-east section of Ledig. The integrity of this line is questionable, and Sun City is proposing to shut down this line but leave it in place to avoid relocation of housing that removal of the line would necessitate. The existing line conveys sewage from the Vacation Club and Palace to the Sun City Waste Water Treatment Works (WWTW). To manage the sewage from Vacation Club and the Palace, Sun City proposes the construction of a new WWTW on, what is known as, the “old mining area” west of the current Vacation Club. The use of a sewage package plant instead of a formal WWTW is also being considered. Additionally, a new pipeline will have to be constructed from the new WWTW to the Lost City hole 3 Dam to return the treated water for use as	Establishment of the new WWTW will take approximately 12 months. This project is earmarked for implementation in 2020.

Project Name	Project Description	Phasing/Duration
	irrigation water. The pipeline will be less than 800m long and have a diameter of 400mm. The site of the WWTW (or package plant) will comprise a footprint of approximately 1.5 hectares and will have a daily throughput capacity of 1,000 cubic metres.	
USP6: South Village Pipeline	Water Supply to Sun City starts at the Doornkop Reservoir in the south of the Resort. South Village is supplied from a reservoir located immediately north of South Village. Water quality from this reservoir has often shown signs of containing too much chlorine. Sun City is proposing the construction of an additional pipeline to provide water to South Village from the Complex reservoirs. This pipeline will be 480 metres long, have a diameter of 110mm and a peak throughput of 10 L/s.	Establishment of the pipeline will not exceed three months, this is considered a priority project and will be implemented in 2019.
USP7: Generator Park	Sun City currently has 13 operational Diesel Generators throughout the Resort, servicing different facilities in the event of a power outage. Sun City is proposing to consolidate these generators into one area, adjacent to the existing primary substation and car park near the Resort Entrance, to ensure the Generators are not visually intrusive and that the noise from the generators can be effectively screened off from receptors. As an alternative solution, Sun City proposes to establish a smaller generator park servicing the east side business units only located at No 1 substation. The substation is located between the Cabanas Bus Stop and the Sky-train on the top road. This alternative would involve re-establishing a diesel storage facility (building existing), trenching and excavation	Establishment of the generator park (for all generators, or for the east-side generators) will not exceed 2 months. This project is not considered a high priority and is currently scheduled for 2023.

Project Name	Project Description	Phasing/Duration
	adjacent to the existing sub. This would be an 11 kV step-up generating facility, with a paved access road.	
Maintenance Projects (MP)		
MP1: Clearance of Fence Roads	The entirety of the Sun City Property is not fenced. The "developed area" comprising the existing resort is fenced and access controlled. The perimeter fence between Sun City and Pilanesberg National Park is also fenced with game fencing. Other areas such as the landfill site and nursery are fenced individually. Service roads are associated with the Sun City fence-lines, to enable access to these areas for fence inspection. In addition to fence inspections, vegetation clearance in these areas is frequently necessary to act as fire breaks. Apart from the ecological repercussions of uncontained veld fires, economic liability also has to be considered in assessing the importance of maintaining effective fire breaks.	This project will recur at least annually as it is a maintenance project aimed at fire safety (among other considerations). Clearance of the 25km fence road will most likely not exceed 1 month and be undertaken annually.
MP2: Sun Park Culverts	The Main access road to Sun City crosses a watercourse downstream of the Sun City Lake, via an existing bridge. This Bridge includes a number of culverts, allowing water to flow underneath the road. The culverts in question are close to Sun Park. These culverts have not been cleaned out in recent years and have begun to silt up with soil, vegetation and litter. Sun City wishes to establish an access road to the Culverts to enable regular maintenance of the culverts, and periodically clean the culverts as necessary.	This is considered an ongoing maintenance project and not a once-off activity.

The various locations of these projects are reflected in Figure 2-1 and a summary of the indicative timeframe is shown in Figure 2-2.

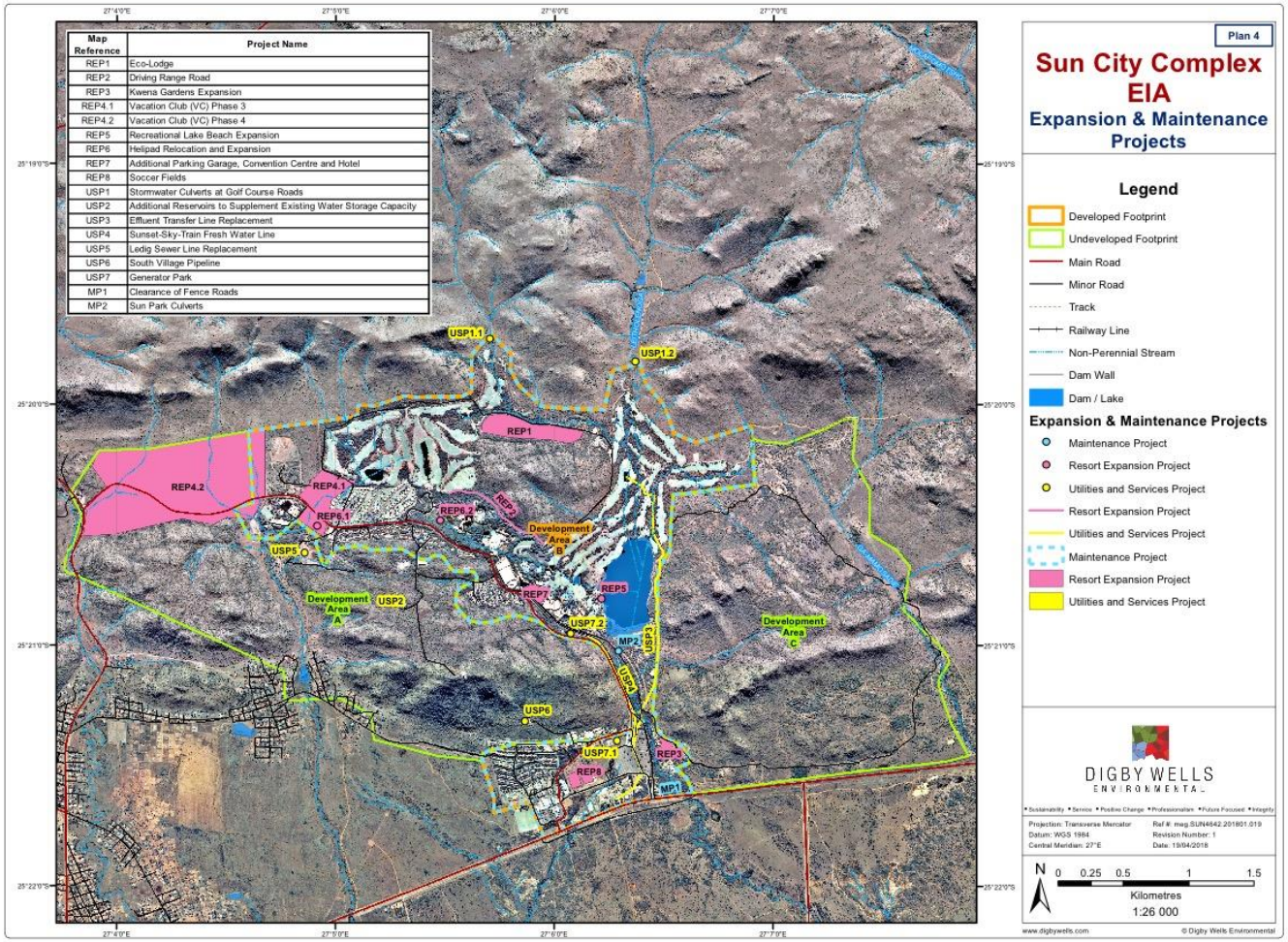

Figure 2-1: Location of the various expansion and maintenance projects within the Sun City complex

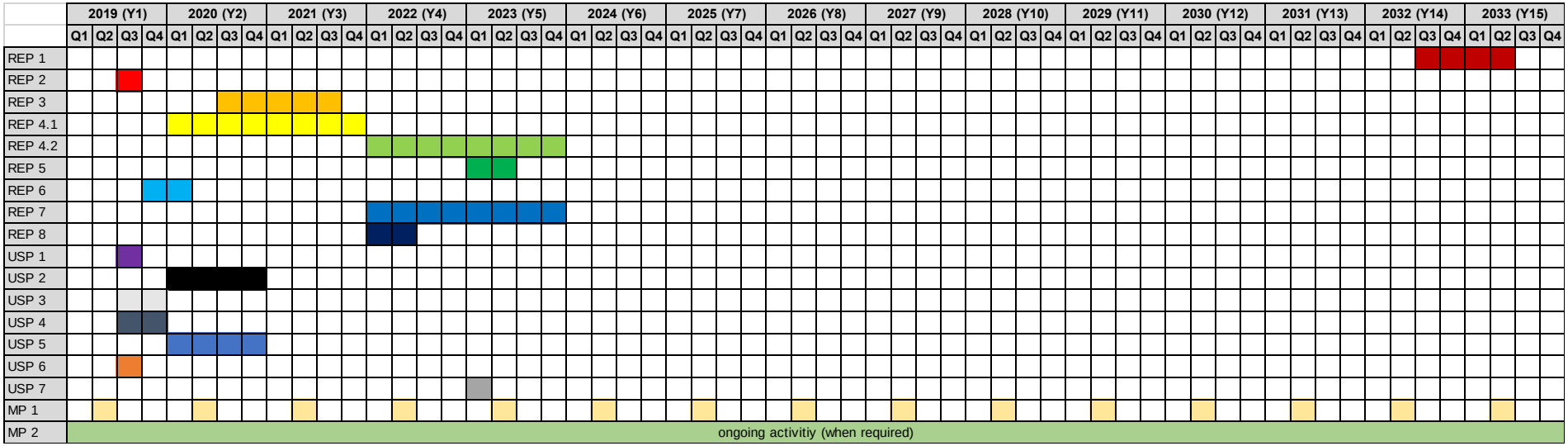

Figure 2-2: Indicative timeframe (phasing) of project activities

2.4 Estimated Workforce

Based on assumptions for the total Gross Value Added (GVA) (profit, salaries and wages) generated from construction at Sun City (see Section 5.2.1.2 for more detail), the construction phase could create up to 600 full time job opportunities of which 344 will be direct jobs and 253 will be indirect or 'flow-on' jobs. However, it should be noted that a 'full time job' does not necessarily imply that these would be new recruits but is rather likely to be the contractor's regular employees whose employment is secured for the duration of the contract. Sun City will require construction contractors to hire local labour as far as possible – likely this will be unskilled workers for which there is only a limited number of positions available.

At the time of finalising the SIA report, the final size and distribution of the construction workforce across the various projects (see Table 2-2) was undecided and therefore the SIA only considered a maximum influx of 344 construction workers at the peak of construction (estimated to be around 2019 to 2023), assuming indirect jobs will be filled by locals.

3 Methodology

3.1 Definition of the Study Area

Socio-economic impacts can usually be divided into three broad categories, namely:

- **Physical intrusion**, which refers to Project infrastructure and Project-related activities' material presence in an area. These could lead to changes in, for example, land ownership, noise, dust, and changes in the visual landscape. Such changes typically extend to land uses within a few kilometres from the Project site;
- **Economic pull** occurs when a Project exerts changes and impacts on job creation, in-migration of workers and job-seekers, multiplier effects in the local and regional economy – all of which can lead to an increased risk of social pathologies and community conflict. These impacts can typically be expected in settlements and towns closest to the Project; and
- **Indirect or induced impacts** are by-products of the abovementioned categories and can include aspects such as increased pressure on local services and resources, macro-economic benefits, etc. These impacts could have a wide geographic reach and include major towns or cities up to 50 km from the Project site.

3.2 Data Collection

The approach taken to data collection – and to the SIA in general – was to capitalise as much as possible on collaboration with other members of the Digby Wells teams involved in the EIA and supporting specialist studies. Particular instances of such collaboration included the following:

- Information obtained by the Digby Wells stakeholder engagement team (e.g. during meetings with local government officials and other local and regional stakeholders) was used to inform the social baseline and impact assessment; and
- The findings of other specialist studies were reviewed to identify cross-disciplinary linkages, i.e. impacts assessed by one specialist discipline that could give rise to indirect or induced impacts relevant to another discipline. As an example, project-induced changes in groundwater quality and quantity could cause social impacts by altering the availability and/or quality of water for domestic consumption.

Specific data collection activities undertaken during this study are outlined below.

3.2.1 Desktop Review

Available public documents were reviewed to obtain relevant information on current and planned Project activities, on baseline socio-economic conditions (completed during the preceding Scoping phase) and on anticipated impacts of the Project. Secondary data sources reviewed during the Scoping Phase included the following:

- Bechan, S., 2017. Bakubung Ledig mixed-used housing development. K2M Environmental (Pty) Ltd: unpublished draft environmental impact report;
- Boshoff, D. 2015. Utilising sustainable tourism indicators to determine the environmental performance of Sun City Resort: unpublished dissertation submitted in fulfilment of an MSc (Environmental Management): University of South Africa;
- BPDM, 2012. 3rd Generation IDP for Bojanala Platinum District Municipality: Integrated Planning and Performance 2012-2017, Rustenburg: Bojanala Platinum District Municipality.
- RLM, 2017. Integrated Development Plan 2017-2022. Rustenburg: Rustenburg Local Municipality.
- Statistics South Africa, 2011. Statistics by Place. Available online at: http://www.statssa.gov.za/?page_id=964
- Wazimap, 2017. Available online at: http://www.wazimap.co.za

Additional desktop data reviewed during the impact assessment phase included the following:

- BPDM. 2018. IDP Review 2018/2019. Bojanala District Municipality: Rustenburg
- DBSA. 2007. Social Accounting Matrix for North West Province. DBSA: Midrand.
- Hasenfuss, M. 2018. ' Sun City The Star Of The Sun Group Refurbishment Pays Off, But Times Square Results a Kick in the Solar Plexus' Available online at https://www.businesslive.co.za/bd/companies/transport-and-tourism/2018-03-19-no-payout-for-sun-internationals-investors-but-there-may-be-a-rights-issue/
- Statistics South Africa 2017, Detailed GDP Tables, 2010- 2015. Statistics South Africa: Pretoria

3.2.2 Investigative site visit and interviews

A site visit was undertaken on 18 July 2018 to gain insight into the socio-economic characteristics of the Project area. Additional primary data was collected through:

- Attendance of the public meeting on 18 July 2018;
- Ongoing e-mail communication with Sun International's SHE manager, Mr Danie Boshoff;
- Personal interviews with Sun City users on 29 August 2018 to determine their product experience and obtain their view on the potential developments; and
- Telephonic interview with Mr Jason Kltizner of Waterworld on 4 September 2018.

3.2.3 Information from the public consultation process

As part of the data collection process, the SIA made use of information gathered during public consultations. The relevance of this data lies in the fact that the public participation

process serves as a stage where stakeholders air their concerns and perceptions about the Project. This allows for the early identification and confirmation and assessment of social impacts. The Comment and Response Report (CRR) compiled as part of the public consultation process was reviewed as part of the data collection process.

3.2.4 Economic Modelling

Input-output (I/O) modelling was used to assess the project's potential impact on employment and economic output. The I/O analyses is based on i) direct impacts (income and employment created due to employment by the project itself) ii) indirect impacts (backward linkages to local suppliers) and iii) induced impacts due to the overall increase in income levels and increased spending on goods and services which could lead to a further increase in production and employment in the local area.

3.3 Impact Assessment Methodology

The methodology is discussed in more detailed in the overall EIA Report.

The impacts are assessed based on the impact's magnitude as well as the receiver's sensitivity, culminating in an impact significance which identifies the most important impacts that require management.

Based on international guidelines and South African legislation, the following criteria are considered when examining potentially significant impacts:

- Nature of impacts (direct/indirect, positive/ negative);
- Duration (short/medium/long-term, permanent(irreversible) / temporary (reversible), frequent/seldom);
- Extent (geographical area, size of affected population/habitat/species);
- Intensity (minimal, severe, replaceable/irreplaceable);
- Probability (high/medium/low probability); and
- Possibility to mitigate, avoid or offset significant adverse impacts.

Details of the impact assessment methodology used to determine the significance of physical, bio-physical and socio-economic impacts are provided below.

The significance rating process follows the established impact/risk assessment formula:

Significance = Consequence x Probability x Nature

Where

Consequence = Intensity + Extent + Duration

And

Probability = Likelihood of an impact occurring

And

Nature = Positive (+1) or negative (-1) impact

Note: In the formula for calculating consequence, the type of impact is multiplied by +1 for positive impacts and for negative impacts

The matrix calculates the rating out of 147, whereby intensity, extent, duration and probability are each rated out of seven as indicated in Table 3-2. The weight assigned to the various parameters is then multiplied by +1 for positive and -1 for negative impacts.

Impacts are rated prior to mitigation and again after consideration of the mitigation has been applied; post-mitigation is referred to as the residual impact. The significance of an impact is determined and categorised into one of seven categories (The descriptions of the significance ratings are presented in Table 3-3).

It is important to note that the pre-mitigation rating takes into consideration the activity as proposed, (i.e., there may already be some mitigation included in the engineering design). If the specialist determines the potential impact is still too high, additional mitigation measures are proposed.

Table 3-1: Impact assessment parameter ratings

Rating	Intensity/ Irreplaceability		Extent	Duration/Reversibility	Probability
	Negative Impacts (Nature = -1)	**Positive Impacts (Nature = +1)**			
7	Irreplaceable loss or damage to biological or physical resources or **highly** sensitive environments. Irreplaceable damage to **highly sensitive** cultural/social resources.	Noticeable, on-going natural and / or social benefits which have improved the overall conditions of the baseline.	International The effect will occur across international borders.	Permanent: The impact is irreversible, even with management, and will remain after the life of the project.	Definite: There are sound scientific reasons to expect that the impact will definitely occur. >80% probability.
6	Irreplaceable loss or damage to biological or physical resources or **moderate to highly** sensitive environments. Irreplaceable damage to cultural/social resources of **moderate to highly** sensitivity.	Great improvement to the overall conditions of a large percentage of the baseline.	National Will affect the entire country.	Beyond project life: The impact will remain for some time after the life of the project and is potentially irreversible even with management.	Almost certain / Highly probable: It is most likely that the impact will occur.>65 but <80% probability.

Rating	Intensity/ Irreplaceability		Extent	Duration/Reversibility	Probability
	Negative Impacts (Nature = -1)	**Positive Impacts (Nature = +1)**			
5	Serious loss and/or damage to physical or biological resources or **highly** sensitive environments, limiting ecosystem function. Very serious widespread social impacts. Irreparable damage to highly valued items.	On-going and widespread benefits to local communities and natural features of the landscape.	Province/ Region Will affect the entire province or region.	Project Life (>15 years): The impact will cease after the operational life span of the project and can be reversed with sufficient management.	Likely: The impact may occur. <65% probability.
4	Serious loss and/or damage to physical or biological resources or **moderately** sensitive environments, limiting ecosystem function. On-going serious social issues. Significant damage to structures / items of cultural significance.	Average to intense natural and / or social benefits to some elements of the baseline.	Municipal Area Will affect the whole municipal area.	Long term: 6-15 years and impact can be reversed with management.	Probable: Has occurred here or elsewhere and could therefore occur. <50% probability.

Rating	Intensity/ Irreplaceability		Extent	Duration/Reversibility	Probability
	Negative Impacts (Nature = -1)	**Positive Impacts (Nature = +1)**			
3	Moderate loss and/or damage to biological or physical resources of **low to moderately** sensitive environments and, limiting ecosystem function. On-going social issues. Damage to items of cultural significance.	Average, on-going positive benefits, not widespread but felt by some elements of the baseline.	Local Local including the site and its immediate surrounding area.	Medium term: 1-5 years and impact can be reversed with minimal management.	Unlikely: Has not happened yet but could happen once in the lifetime of the project, therefore there is a possibility that the impact will occur. <25% probability.
2	**Minor loss and/or effects** to biological or physical resources or low sensitive environments, not affecting ecosystem functioning. Minor medium-term social impacts on local population. Mostly repairable. Cultural functions and processes not affected.	Low positive impacts experience by a small percentage of the baseline.	Limited Limited extending only as far as the development site area.	Short term: Less than 1 year and is reversible.	Rare / improbable: Conceivable, but only in extreme circumstances. The possibility of the impact materialising is very low as a result of design, historic experience or implementation of adequate mitigation measures. <10% probability.

Rating	Intensity/ Irreplaceability		Extent	Duration/Reversibility	Probability
	Negative Impacts (Nature = -1)	**Positive Impacts (Nature = +1)**			
1	**Minimal to no loss** and/or effect to biological or physical resources, not affecting ecosystem functioning. Minimal social impacts, low-level repairable damage to commonplace structures.	Some low-level natural and / or social benefits felt by a very small percentage of the baseline.	Very limited/Isolated Limited to specific isolated parts of the site.	Immediate: Less than 1 month and is completely reversible without management.	Highly unlikely / None: Expected never to happen. <1% probability.

Table 3-2: Probability/consequence matrix

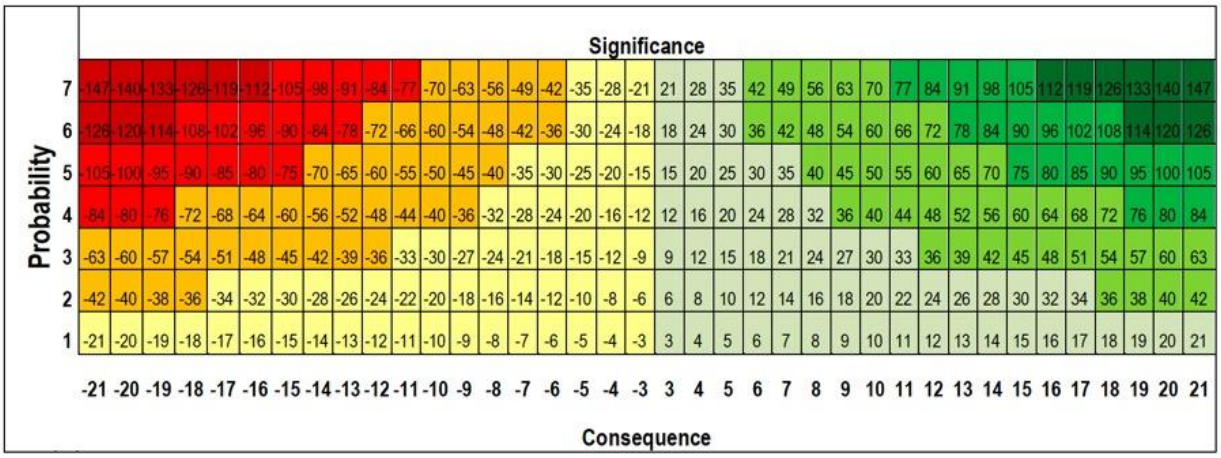

Table 3-3: Significance rating description

Score	Description	Rating
109 to 147	A very beneficial impact that may be sufficient by itself to justify implementation of the project. The impact may result in permanent positive change	Major (positive) (+)
73 to 108	A beneficial impact which may help to justify the implementation of the project. These impacts would be considered by society as constituting a major and usually a long-term positive change to the (natural and / or social) environment	Moderate (positive) (+)
36 to 72	A positive impact. These impacts will usually result in positive medium to long-term effect on the natural and / or social environment	Minor (positive) (+)
3 to 35	A small positive impact. The impact will result in medium to short term effects on the natural and / or social environment	Negligible (positive) (+)
-3 to -35	An acceptable negative impact for which mitigation is desirable. The impact by itself is insufficient even in combination with other low impacts to prevent the development being approved. These impacts will result in negative medium to short term effects on the natural and / or social environment	Negligible (negative) (-)
-36 to -72	A minor negative impact requires mitigation. The impact is insufficient by itself to prevent the implementation of the project but which in conjunction with other impacts may prevent its implementation. These impacts will usually result in negative medium to long-term effect on the natural and / or social environment	Minor (negative) (-)

Score	Description	Rating
-73 to -108	A moderate negative impact may prevent the implementation of the project. These impacts would be considered as constituting a major and usually a long-term change to the (natural and / or social) environment and result in severe changes.	Moderate (negative) (-)
-109 to -147	A major negative impact may be sufficient by itself to prevent implementation of the project. The impact may result in permanent change. Very often these impacts are immitigable and usually result in very severe effects. The impacts are likely to be irreversible and/or irreplaceable.	Major (negative) (-)

3.4 Mitigation Measures and Recommendations

Appropriate management and mitigation/enhancement measures are recommended to avoid or ameliorate negative socio-economic impacts and to enhance positive impacts. The criteria for the selection of mitigation measures included the following:

- Measures should be effective in ameliorating the impact without having severe negative secondary consequences; and
- It should be practically feasible and cost-effective.

After suitable mitigation/enhancement measures were identified for each impact, the rating procedure described in Section 3.3 was repeated to assess the expected significance of each impact after mitigation or enhancement. This post-mitigation rating gives an indication of the significance of residual impacts, while the difference between an impact's pre- and post-mitigation ratings represent the effectiveness of the recommended measures.

In addition to recommending mitigation and enhancement measures, the study also makes general recommendations that could aid the successful mitigation of the Project-related risks.

3.5 Assumptions and Limitations

Although all reasonable efforts were made to provide an updated and representative picture of socio-economic impacts relevant to the study areas, this report is subject to the following assumptions and limitations:

- The report is based on available information obtained from Sun International (Sun City), secondary sources, other specialists and stakeholders consulted during fieldwork. The sources consulted are not exhaustive but is deemed sufficient to meet the scope of work for the current phase of the study. No information has been deliberately excluded from the report, and it is assumed that no party withheld relevant information from the specialists.

- The economic impact model was based on high-level information supplied by Sun International. Total construction costs of R1bn was assumed with 90% spread evenly over the first 5 years of the 15 year construction period while the remaining 10% is spread evenly over the last 2 years of the 15 year construction period. The operational impacts were based on the number of new accommodation units; and income based on current occupancy rates at Sun City's hotels and lodge.
- The study acknowledges the importance and value of local knowledge obtained through consultations with a variety of local stakeholders. As such, efforts were made during the consultation process to elicit the relevant knowledge required for a comprehensive and accurate impact assessment of the socio-economic environment. It should, however, be noted that although several interviews were planned for the data collection phase, some of these interviews did not materialise as stakeholders were not available. Despite this, the authors are confident that sufficient information was obtained to complete the scope of work
- Economic multipliers, average salaries, sectoral skills compositions, wages and value added as a percentage of total income were based on provincial and national averages.

4 Socio-Economic Baseline Profile

The following subsections provide a summary of the key aspects of the socio-economic baseline. For a detailed description of the baseline profile, refer to the SIA Scoping Report (Digby Wells, February 2018).

4.1 Regional Setting

The regional area consists of the Northwest Province, the Bojanala Platinum District, and the Moses Kotane and Rustenburg Local Municipalities.

4.1.1 Northwest Province

The Northwest Province covers a geographical area of 105,238 km^2 and with a 2018 population estimate of almost 4 million people, is the 7th largest province in South Africa (based on population size). A population density of 37.8 people per km^2 is indicative of the largely rural nature of the province. Urban centres can be found around Mahikeng (the provincial capital), Klerksdorp, Potchefstroom and Rustenburg where the population density is expected to be much higher. The majority of the population is Black African (91.6%), followed by White (6.4%). There is an almost equal split between males and females, with males in the slight majority at 50.9%. According to Community Survey 2016, the majority of the province's residents are native to the Northwest (81.2%).

More than half of the province's gross domestic product is generated by the mining industry. It produces 5.7% of South Africa's GDP through its mining, agriculture and manufacturing sectors. Tourism is regarded as the fourth most important sector, after those previously mentioned. Domestic tourism is an important source of the province's revenue and employment, contributing approximately 52% of total tourism consumption. According to the South African Annual Tourism Report (2014), Northwest is one of three least visited destinations in South Africa, both in terms of domestic and international visitors with a 5.3% market share in tourist arrival. Even so, this is an indication of quantitative growth in the province's tourism profile as it represents an increase of 15,340 tourists over a year period (Northwest Department of Tourism, Annual Performance Plan, 2018/19).

Growth and development in the province are guided by the North West Development Plan (NWDP). The NWDP adopted 8 development priorities which constitute the first 5-year cycle of economic transformation. These are:

- Economy and employment;
- Economic infrastructure;
- An integrated and inclusive rural economy;
- Human settlement and spatial transformation;
- Improving education, training and innovation;
- Building a capable and development state;

- Fighting corruption; and
- Transforming society and uniting the province.

4.1.2 Bojanala District

The Bojanala Platinum District Municipality (BPDM) is one of four districts in the Northwest province. It covers an area of 18,333 km^2 (17.4% of the province) and in 2016, was home to just over 1.5 million people (44.2% of the province's total population).

At 89.6 persons per km^2, the population density of the district is more than double that of the province as a whole, but still indicative of a largely rural area. Similar to the province, the largest population group in 2016 was Black African (93.8%), followed by White (5.3%). More than half of the population are male (52.9%). Although a higher percentage of the population migrated from neighbouring Gauteng (8.7%), the majority of the district's population (71.8%) are native to the Northwest. Low out-migration rates are indicative of strong place attachment to an area. Situation

The district's main economic drivers are agriculture, tourism, manufacturing, mining and the service industry. In 2015 the mining sector was the largest within the district, accounting for 51.8% (R61.1bn) of the local GVA. Agriculture is the smallest economic sector, contributing an estimated R1.37bn (or 1.2%) of the total GVA. Overall the BPDM contributed 54.29% to the province's GDP of R226bn in 2014 (BDPM IDP, 2018/19). Tourism and marketing development is one of the core objectives of the district's local economic development KPA.

4.1.3 Moses Kotane Local Municipality

The Moses Kotane Local Municipality (MKLM) is a category B4 local municipality, which refers to a municipality that is mainly rural with communal tenure[1]. The municipality covers an area of approximately 5,738 km^2 (31.3% of the BPDM land area) and consists of 107 villages and 2 formal towns (Mogwase and Madikwe). In 2016, the MKLM was home to 243,648 people. This represents a marginal increase from 2011's population size of 242,554 at an average population growth rate of 0.1% per annum. Close on two thirds (59.5%) of the population fall within the economically active age range (ages 15-64). Although this is a large majority of the population, it represents a 2.3% decrease in this age bracket (61.8% in 2011), which is indicative of an out-migrating economically active population – likely in search of employment opportunities elsewhere. As a largely traditional area with communal tenure, the MKLM is made up almost exclusively of Black Africans (99.3%), with females in the slight majority (50.2%). Most of its population (90.2%) are native to the Northwest province.

Just under a third (32%) of the MKLM's *economically active* population are employed. Approximately 1 in every 5 individuals (19.5%) are unemployed and a further 5.8% regard

[1] Communal tenure refers to a situation where communities have a well-defined, exclusive right to jointly own and manage particular areas of natural resources such as land. This means that large parts of the MKLM is under tribal council management – for example the Bakubung Ba Ratheo community in Ledig, close to Sun City.

themselves as discouraged work seekers. The MKLM IDP (2017-2022) puts the unemployment rate in the municipality as high as 51% (data source unknown) and states in this regard that the need for skills development and job creation is very high and that all role-players who reside in and/or do business in the municipal boundary, should become active participants in the MKLM's local economic development plans.

4.1.4 Rustenburg Local Municipality

The Rustenburg Local Municipality (RLM) is slightly smaller than the MKLM in terms of geographical area and covers approximately 3,423 km^2. Despite its smaller areal space, its population in 2016 was almost triple that of the MKLM at an estimated 626,522 people. This represents a population increase of approximately 77,000 people between 2011 and 2016 (at an average population growth rate of 2.8% per annum, which is much higher than the MKLM's 0.1% p.a. over the same period). More than two thirds (68.9%) of the population are in the economically active age range, which represents a slight reduction in this age category from 2011's 71.3%. Similar to the MKLM, the BPDM and the province as whole, the majority of the population consist of Black African (93.1%), followed by White (6.1%). Slightly more than half (54.7%) of the population is male. Although the majority of the population are native to the Northwest (72.6%), a fairly large contingent is from the Eastern Cape (7.7%) and outside South Africa (7.6%).

Just over a third (36.3%) of the adult population (aged 20 and older) have completed Matric, which is more or less in line with the MKLM. Just under half of the economically active population are employed (45.4%). A further 16.3% are unemployed and 2.6% regard themselves as discouraged work seekers. According to the RLM IDP (2017-2022), the mining sector is the most dominant player in the GVA. The IDP lists tourism as one of a variety of local economic development opportunities, but as the Sun City complex is not located in the RLM, it was deemed not relevant for the purpose of this study.

4.2 Indirectly Affected Wards

The indirectly affected (neighbouring) wards include MKLM Wards 28 and 30 and RLM Ward 2 (Figure 4-1).

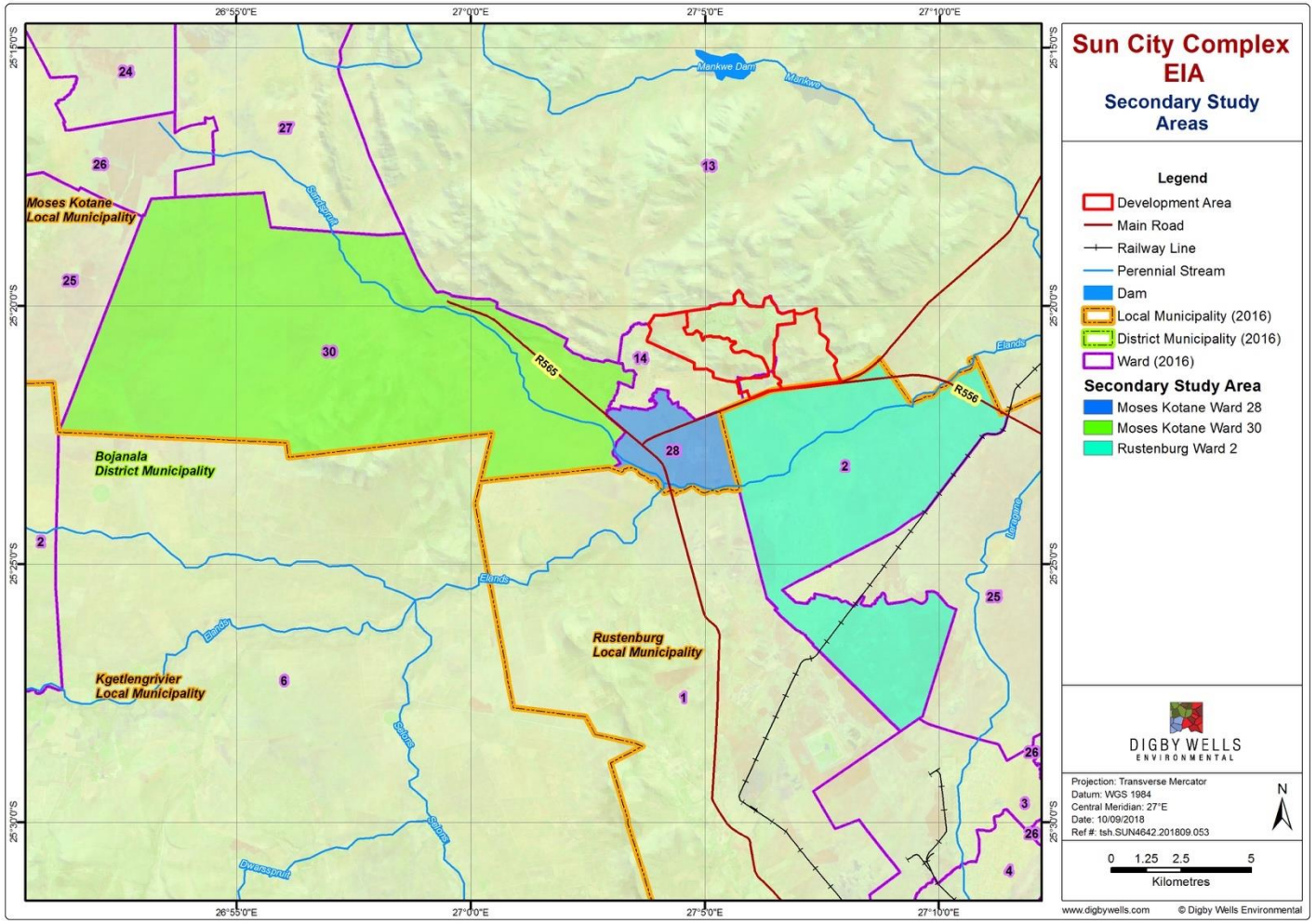

Figure 4-1: Indirectly Affected Wards

Together these wards have a total population of 29,113 people. MKLM Ward 28 has an extremely high population density: 856 people per km^2, compared to MKLM Ward 30 (56.9/km^2) and RLM Ward 2 (180/km^2) – this is likely because two densely populated areas (Serosecha and Lekwadi) fall within Ward 28 and because the ward is the smallest of the three in the local study area: Ward 28 covers an area of 11.2 km^2 compared to Ward 30's 129.4 km^2 and RLM Ward 2's 67.6 km^2. The predominant population group is Black African across the local study area – 99% in Ward 28, 99.1% in Ward 30 and 99.3% in RLM Ward 2.

On average, two thirds (66.7%) of the population across the local study area (all wards) are within the economically active range. Of these, an average of 41,3% are employed – the highest employment rate is in RLM Ward 2 at 47,8% and the lowest in MKLM Ward 30 at 35,2%. The average unemployment rate across the study area is 21,1%, which translates to an estimated 4,144 possible job seekers from the local study ('economic pull') area (see Figure 4-2). Linked to the employment rate is the educational profile of the area, which is fairly low: on average 3 in every 10 adults completed Matric (highest in MKLM Ward 28 at 33.3% and lowest in RLM Ward 2 at 29.4%). Only 1.6% of the study area's population competed a tertiary education – again most of these are in MKLM Ward 28 (2.3%), with the fewest in MKLM Ward 30 (1.1%). An overview of the education profile is provided in Figure 4-3.

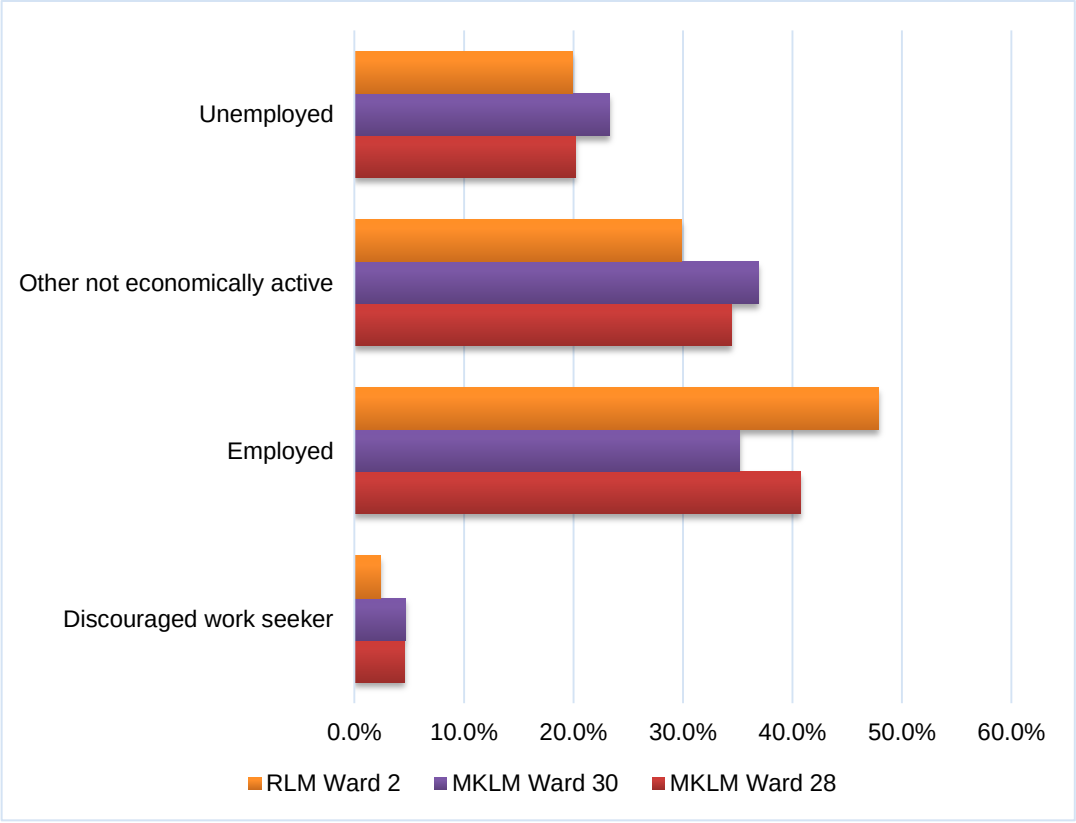

Figure 4-2: Employment profile of the economically active population in the Indirectly Affected Wards

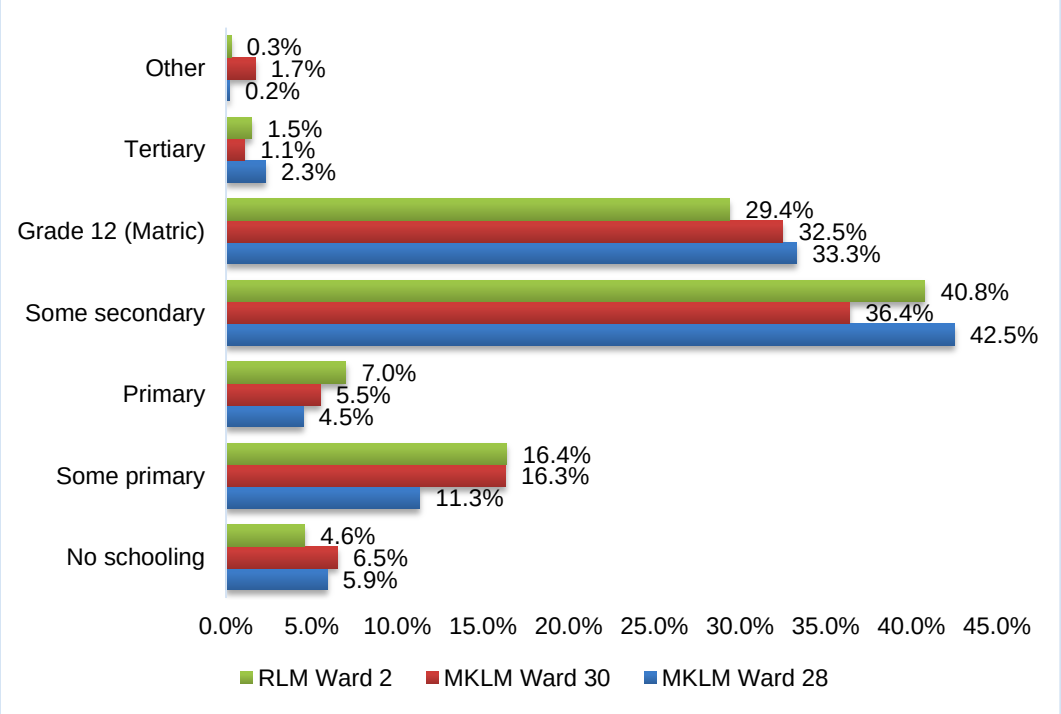

Figure 4-3: Education profile of the adult population in the Indirectly Affected Wards

4.3 Directly Affected Wards

The directly affected wards are the MKLM Wards 13 and 14 (Figure 4-4).

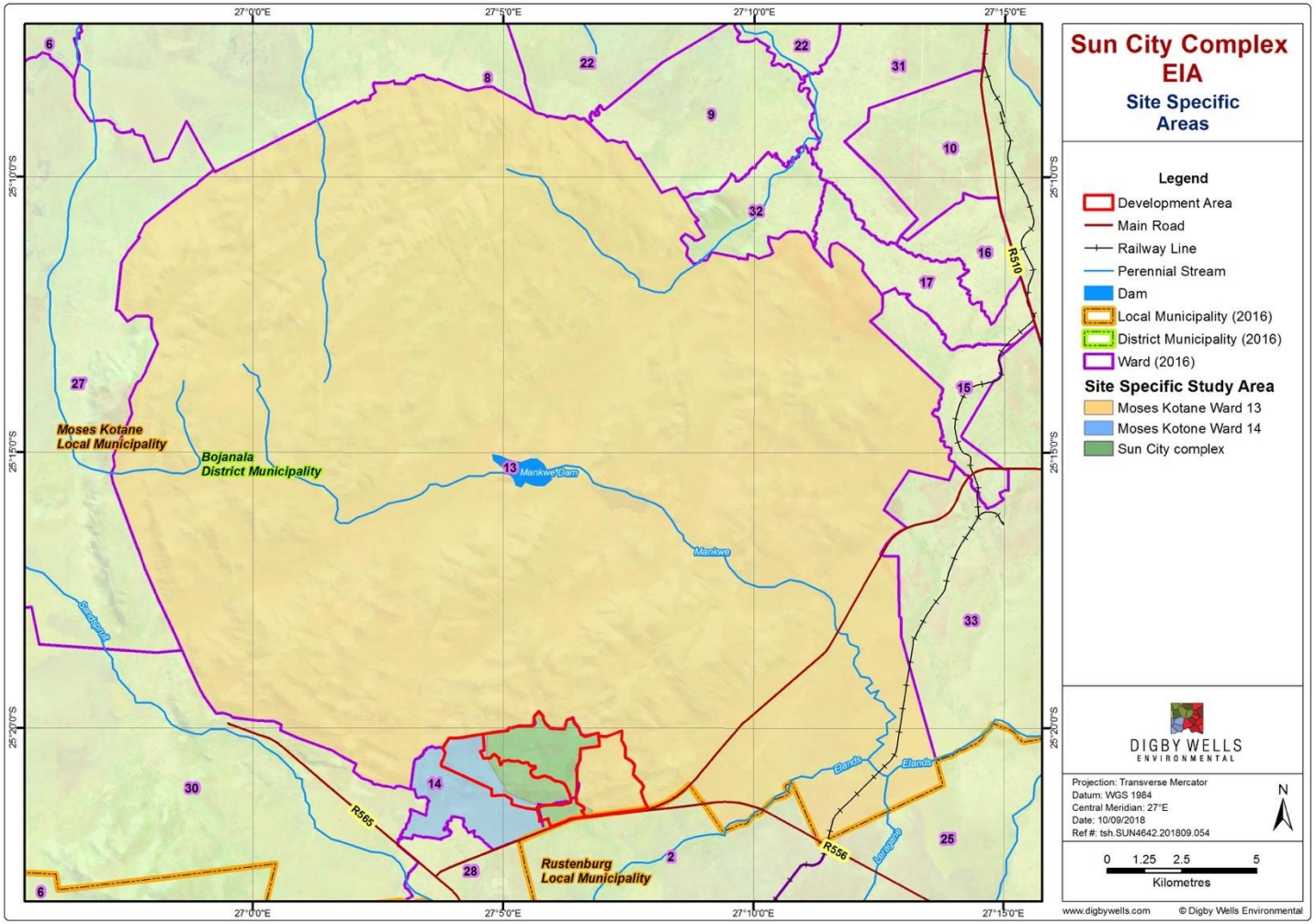

Figure 4-4: Directly Affected Wards

The directly affected wards (or site-specific area) have a total population of 13,256 people. Ward 13 covers a geographical area of 524.2 km^2. Most of the ward is taken up by the Pilansberg National Park, the southern portion of the Sun City complex and some permanent settlement in the east of the ward in the form of Mogwase. Ward 14 covers an area of 18.1 km^2 which includes Ledig and the bulk of the Sun City complex. As could be expected, the population density for differs vastly for these two wards: from 13.8 persons per km^2 in Ward 13 up to 333.9 per km^2 in Ward 14. The Pilansberg National Park occupies most of the land surface of Ward 13, resulting in such a low population density.

As is the case with the local and regional study areas, the site-specific study area is characterised by a population predominantly in the economically active age group (see Figure 4-5). Of the adult population (those aged 20 years and older), on average just over a third (36.6%) have completed Matric, but there is a fairly large discrepancy between Ward 13 and 14's education profile: 42.2% of the adult population completed Matric in Ward 13 compared to only 30.9% in Ward 14. Almost 1 in every 10 adults (9.5%) in Ward 13 completed some form of tertiary education, but only 2.1% in Ward 14. Figure 4-6 provides a comparative overview of the education profile of the site-specific study area.

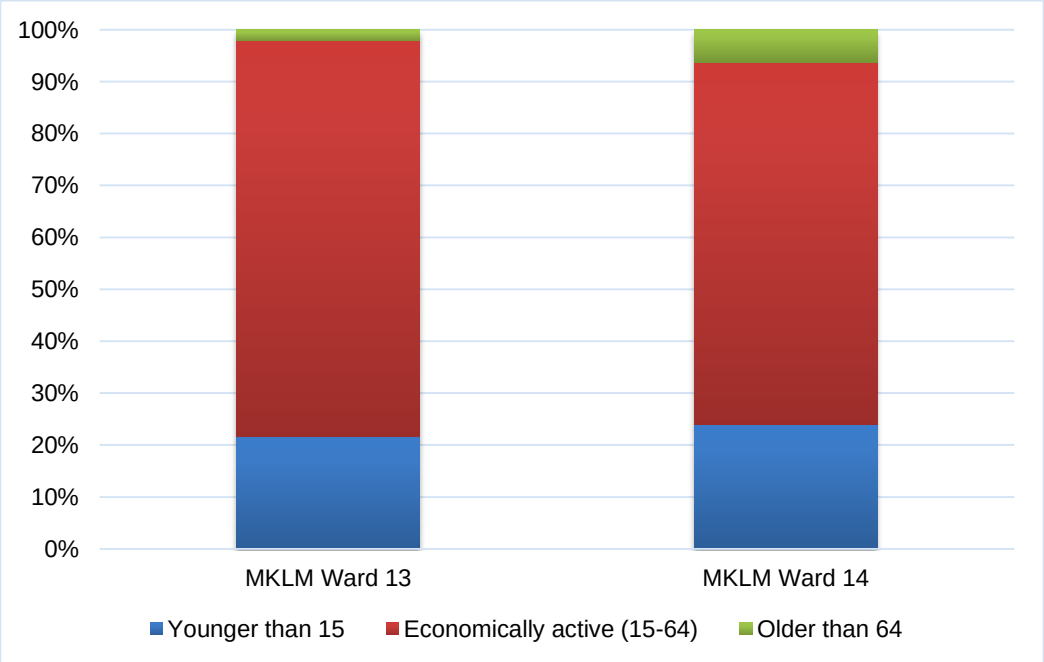

Figure 4-5: Age profile of the Directly Affected Wards

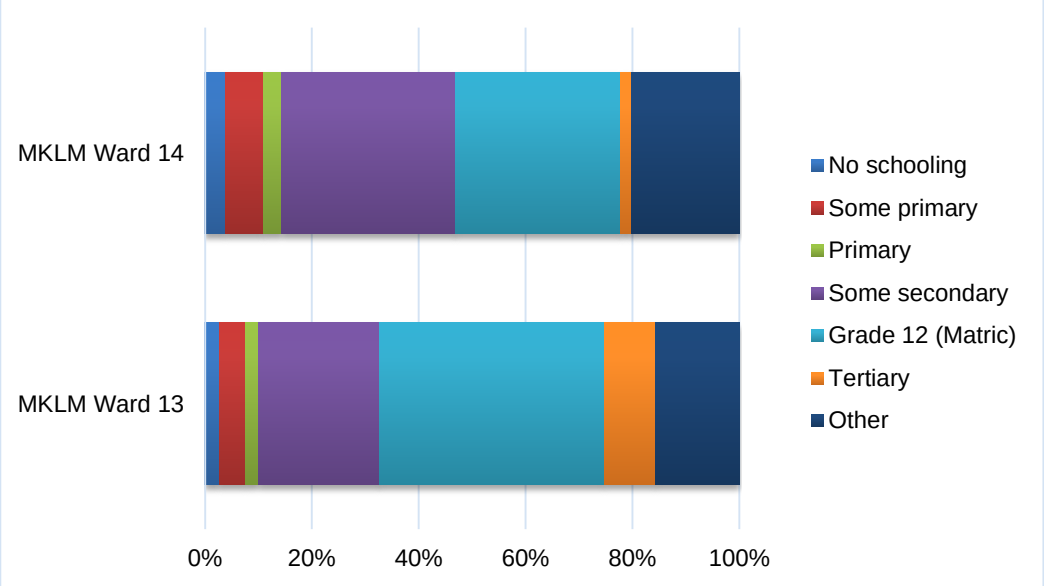

Figure 4-6: Education profile of the Directly Affected Wards

An average of 45.1% of the site-specific study area's economically active population are employed, with between 2% and 4.4% who described themselves as discouraged work seekers. A total of 12.8% of the population are unemployed.

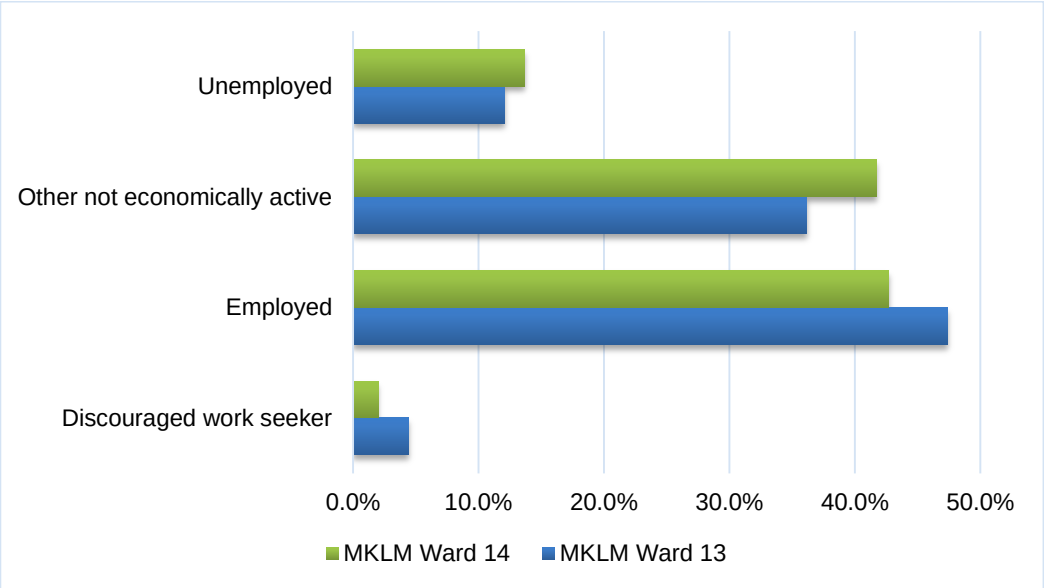

Figure 4-7: Employment profile of the Directly Affected Wards

The site-specific study area, including the Sun City complex, receives its water from Magalies Water (Boshoff, 2015). To decrease its demand on the municipal water supply, Sun City recovers some of its waste water through its own Waste Water Treatment Works (WWTW), which purifies and disinfects the waste water generated at Sun City, which is then pumped to the golf courses for irrigation (Boshoff, 2015). As of 2013, 84% of waste water

was treated and used for irrigation and refilling the water features around the hotels. Sun City's water policy aims to ensure that the complex will not contaminate watercourses or groundwater adjacent to the property through resort operations and minimises the risk of pollution and environmental damage (Boshoff, 2015).

4.3.1 Sun City Complex

Because a fairly large component of its permanent staff is housed within the complex itself, the resort requires a similar level of resources (e.g. energy and water demands) to that of a small town rather than a single hotel (Boshoff, 2015). The complex currently consists of the following amenities:

- Signature amenities such as the Valley of the Waves, the Superbowl, a large casino, a recreational lake for water sports, a 2 km long zip slide, and an entertainment centre;
- Other tourist attractions such as two golf courses, a crocodile farm, aviaries, The Maze, a cultural village, a *shebeen* bar, game drives and hot air balloon rides, walking trials, tour operators, an outdoor adventure centre and a kid's entertainment area;
- Close to 50 restaurants and various bars;
- A spa with a gym and hair salon; and
- Overnight accommodation capacity consisting of 1,301 rooms in four hotels and 382 self-catering unites at the Vacation Club. SCC is able to house up to 6,058 guests at maximum capacity in its overnight facilities.

The SCC has a staff component of 6,500 permanent staff (Boshoff, 2015). Additional temporary staff is hired to assist with big events from time to time.

Sun City is a subplace within MKLM Ward 14. According to Census 2011, Sun City covers a geographical area of 4.89 km^2 and is home to 1,299 permanent residents in 208 households. The population density of SCC is similar to that of an urban area at approximately 266 people per km^2. The population is largely made up of Black African (40.1%) and White (37%).

4.3.2 Surrounding Land Use

The existing land use around the SCC is reflected in Figure 4-8. The surrounding area is mostly characterised by conservation areas (e.g. the Pilansberg National Park borders on the SCC to the north and northeast), urban areas (e.g. Letlhabile, Ledig, Serosecha and Lekwadi to east and southeast), and scattered cultivated areas. The following mines are located close to Sun City:

- The Bakubung Platinum Mine (approximately 4 km southwest of Sun City's main entrance);
- The Styldrift Royal Bafokeng Mine (approximately 4 km south of SC);

- The Maseve Platinum Mine (approximately 7 km southwest of SC);
- The Royal Bafokeng North shaft (approximately 9km south of SC) and South shaft (approximately 11.5 km south-southeast);
- The Bafokeng Rasimone Platinum Mine (approximately 11.5 km of SC); and
- Several shafts of Impala Platinum (the closest being 20 Shaft located approximately 8 km southeast of SC and the furthest 11 Shaft, located approximately 20 km southeast).

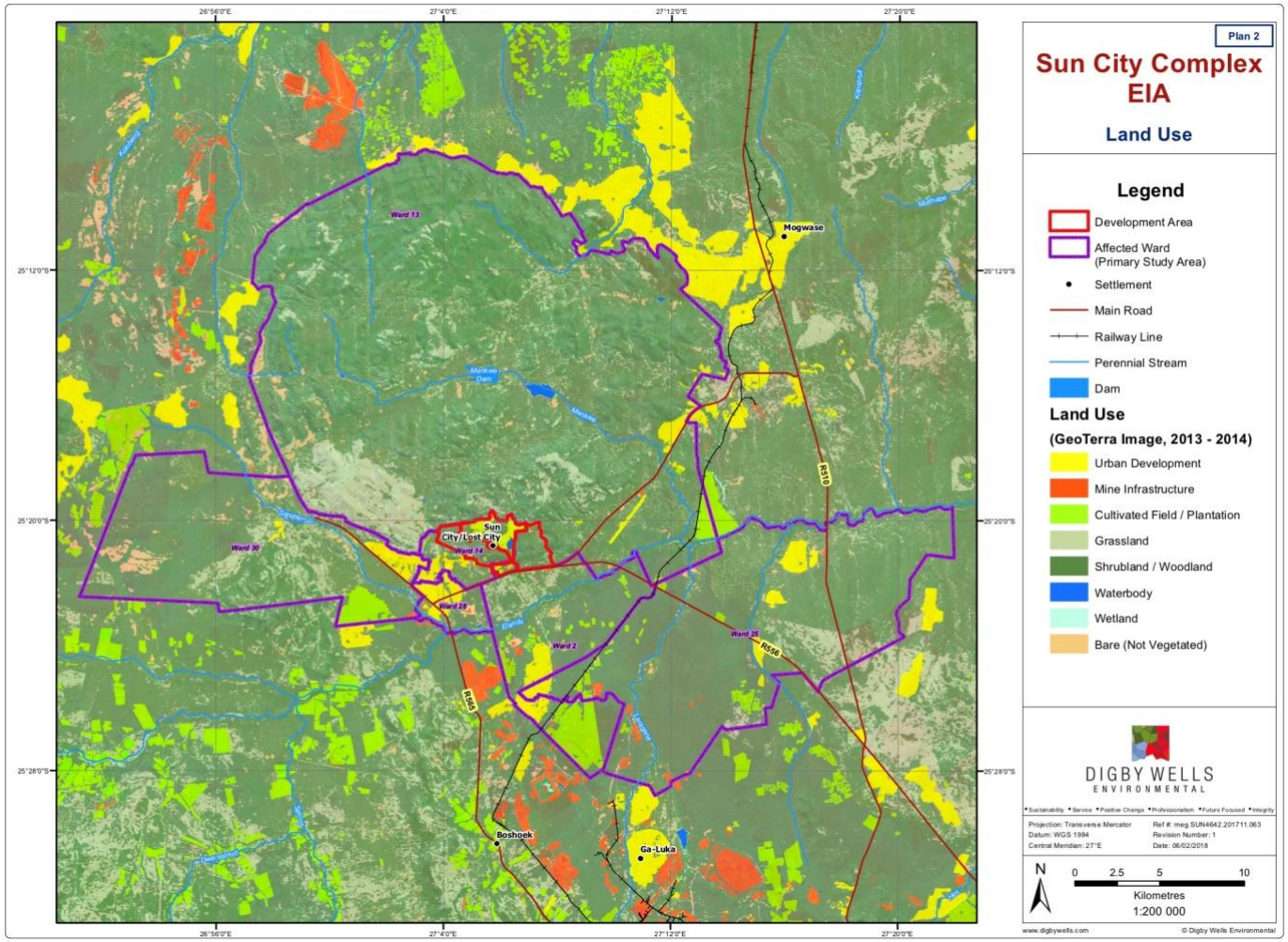

Figure 4-8: Existing land use around the Sun City Complex

5 Socio-Economic Impact Assessment

Socio-economic impacts have to be identified and assessed so that it can be understood and communicated to the impacted communities and decision makers. Unlike biological and physical impacts, socio-economic impacts are to a large extent based on and responsive to people's perceptions and therefore the intensity and significance could change over time as new perceptions are formed (e.g. people might oppose a housing development during the EIA process but once the housing development is constructed and assimilated into the baseline, people don't notice it anymore and their animosity is reduced).

Determining socio-economic impacts is a challenging process because the elements that combine to form an impact are generally multi-dimensional and interrelated. The linkages between project-induced changes are also complex and mutually reinforcing, e.g. employment creation can be an important Project benefit, but at the same time it could also contribute so social conflict or excessive in-migration. Socio-economic impacts also have the potential to spread further to other (sometimes unrelated) areas, e.g. project-induced in-migration could place pressure on local services (i.e. the Project itself did not create the impact but caused a by-product that caused an impact). This is what Vanclay (2002) refers to as change processes.

The assessment of socio-economic impacts was categorised as per the following change processes:

- **Demographic processes**: changes and impacts related to the composition of local communities;
- **Economic processes**: changes and impacts on the way in which the local people make a living and the economic activities in the society;
- **Geographical processes**: changes and impacts on land use patterns;
- **Institutional and Legal processes**: changes and impacts that affect the efficiency and effectiveness of local authorities; and
- **Socio-cultural processes**: changes and impacts that affect the culture of the local society, i.e. the way that people live together.

The discussion of each impact is structured as follows:

- Description of the expected change(s) to the baseline profile and resultant impact(s);
- Description of mitigation or augmentation measures to minimise or avoid negative impacts and enhance positive ones; and
- A table presenting the rating of an impact, summarising the recommended mitigation/augmentation measures, repeating the rating exercise after the application of mitigation/augmentation to determine the effectiveness thereof.

Where findings from other specialist studies are applicable, these have been included, particularly where such findings may contribute to the identified social impacts.

5.1 Demographic Processes

Demographic processes within the realm of the Sun City development projects consider the following aspects:

- In-migration: rapid population growth (as a result from, for example the in-migration of a construction team) can place strain on the local area and lead to economic, social and environmental impacts;
- Presence of newcomers: impacts of in-migration can be exacerbated if newcomers are (or perceived to be) different from local communities; and
- Presence of construction workers: the type and severity of impacts will depend on the number, composition and (dis)similarity of this group to local residents. Because of the temporary nature of their presence, they are unlikely to form place attachment and follow a 'work hard, play hard' mentality, impacting on social cohesion locally.

5.1.1 Construction Phase

5.1.1.1 Project-induced in-migration

The years between 2001 and 2016 saw a steady increase in the population size of the district and local municipal areas, as shown in Figure 5-1. Population growth rate considers natural growth (births and deaths) as well as in- and out-migration. From this graph it is evident that the population in nearby Rustenburg almost doubled between 2001 and 2016. Within the context of nearby MKLM and the BDM as a whole, this drastic increase in population size is likely evident of in-migration to the various mines in this local municipality. MKLM in comparison has had a minor steady increase in population size, largely attributable to normal population growth with little evidence of large-scale in-migration of job seekers (i.e. there are no population spikes or noticeable significant growth as is the case with RLM).

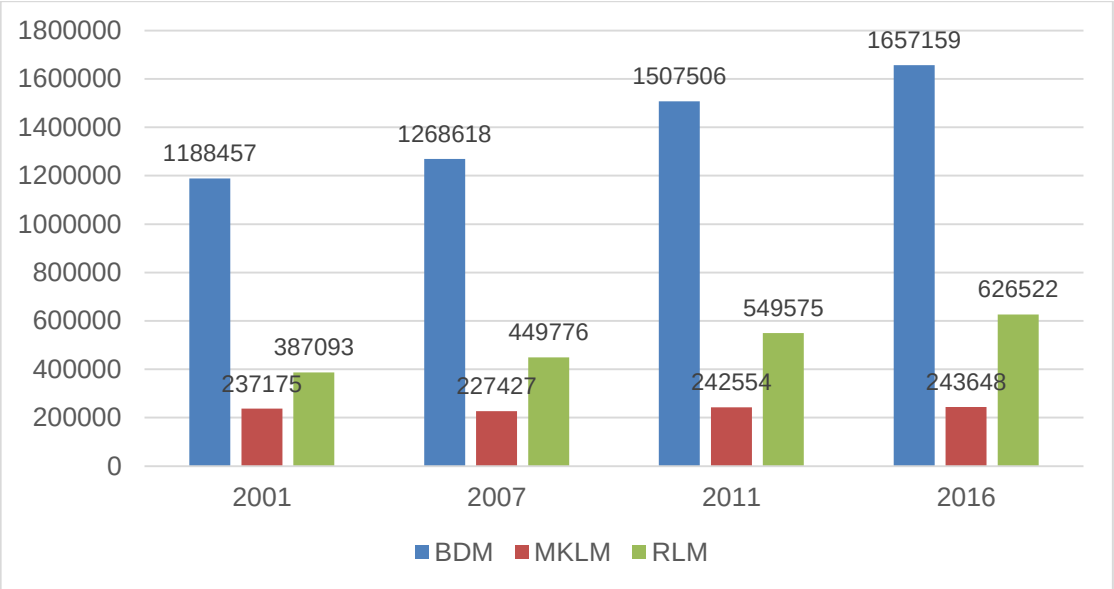

Figure 5-1: MKLM Population Growth between 2001 and 2016

Sun City has undertaken various development projects within the resort in the past (the most recent, for example, was the expansion of the Vacation Club in 2015) and none of these projects attracted job seekers. The issue of project-induced in-migration is therefore likely to be limited to the arrival and presence of a formally appointed construction team.

Ongoing construction projects, such as the ones proposed for Sun City between 2019 and 2033, will cause small scale project-induced in-migration in the form of construction teams (estimated at around 344 people). As reflected in Figure 5-2, the **peak** of the influx period is expected to last for approximately 5 years, starting with the construction of the various utilities and services projects towards the end of 2019, and ending with the completion of the resort expansion projects in 2023 (possibly with some extension into the start of 2024). Thereafter, in-migration is expected to start again during mid 2032 when construction on the Eco-Lodge (REP1) is set to start.

Maintenance projects (MP1 and MP2) were not considered as it is assumed that these activities will be carried out on an ad hoc basis by permanent maintenance staff – or, if not, that contractors will be used who have their own staff consisting of small teams that will not attract much attention.

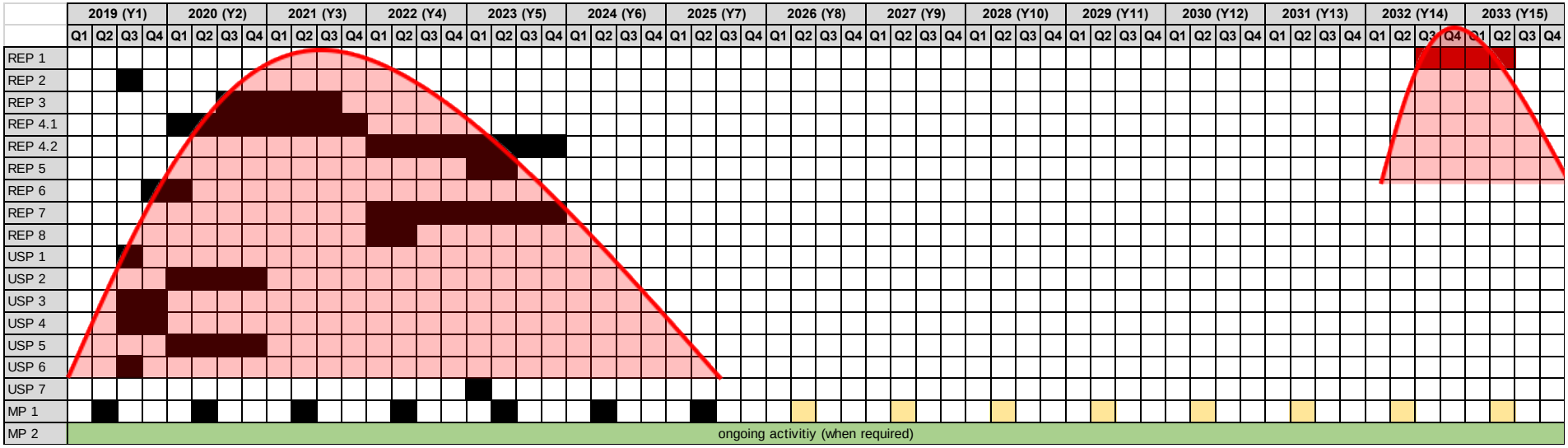

Figure 5-2: Expected peak influx period

Project determinants that drive in-migration include the following aspects (Owen et al, 2018):

- The size and skills required for the construction teams;
- Mobility requirements of the construction teams;
- Goods and services needed during the construction phase;
- The Project's approach to local hiring and procurement;
- Service needs of the Project (e.g. waste, water and accommodation).

However, Project determinants are not the only factors to consider. The local socio-economic environment contributes certain drivers to the dynamics of in-migration, including:

- The size, skill mix and unemployment rate of the local labour pool – if the local pool is insufficient in fulfilling all the Project's labour needs, it is likely that "outsiders" will be brought in;
- The structure of local businesses and industries – small businesses are unlikely able to supply sufficient material to a large construction site;
- Population density (urban vs rural) that links to the mobility of the population and ease of access to employment sites, e.g. people in a rural setting that live widely dispersed and have no easy access to public transport are unlikely to find their way to a construction site;
- The overall absorption capacity of the local community; and
- Existing social problems such as poverty, crime and vulnerability patterns.

The International Finance Corporation's (IFC) on Project-induced in-migration (*Projects and People: A handbook for addressing project-induced in-migration)*, lists both positive and negative impacts associated with unmanaged in-migration. Some of these impacts are summarised below, where it is deemed relevant to the context of the Sun City projects:

- Large groups of newcomers could have a different ethnic/language background to the local communities, which can lead to tension and conflict;
- Construction staff usually consists of groups of unattached young men who have disposable cash with little moral guidance (being away from home). This could lead to anti-social behaviour and rising crime;
- Large groups of in-migrations put strain on local services such as housing, health and other services. This leads to a growing "underclass" and social division (e.g. the establishment/expansion of informal settlements). However, this is mostly applicable to job seekers as arrangements have usually been made for housing construction staff;
- An age imbalance between in-migrants and the local population can bring about rapid social changes that weakens the local area's social norms and customary governance structures; and

- Likewise, gender imbalances can make local women more vulnerable, leading to social tension and violence.

A population influx in itself is not an impact, but rather it leads to other impacts. These have been assessed under the relevant change processes in Sections 5.4 and 5.5.

5.1.2 Operational Phase

5.1.2.1 Project-induced in- and out-migration

It is expected that with an increased overnight capacity able to accommodate another estimated 2,705 guests, additional operational staff will be required on a full-time and part-time basis. This does not account for the expansion of other facilities at SCC that do not cater for overnight guests, e.g. Waterworld. The routine use of casual labour creates and maintains hope of employment at the resort, resulting in job seekers staying on in the area rather than leaving if they were initially unable to secure a position.

On the other hand, construction teams will vacate the site and leave the area. Depending on the size of the construction teams, the sudden out-migration of a segment of the (temporary) population (i.e. people who have lived in the area for the duration of construction, which can be between 2-5 years) could have a ripple effect on certain aspects of the socio-economic environment, e.g. the local economy when clientele is lost to the local supermarket.

This will have an economic impact, as assessed in Section 5.2.2.1.

5.2 Economic Processes

This section considers the change processes that affect the economic activity of the local area and region.

5.2.1 Construction Phase

5.2.1.1 Labour draw-down from the agricultural sector

The project could potentially divert semi-skilled and unskilled labour away from other sectors (especially agriculture) and thereby negatively influence recruitment and wage costs within those sectors. Despite the large pool of unemployed workers in the local wards directly adjacent to the project, recruiting local labour at market prices higher than the adjacent agricultural sector could cause labour ‘draw down’ from the agricultural sector, placing the burden of recruiting and re-training the unemployed for employment in this sector.

Impact Rating

Dimension	Rating	Motivation	Significance
Labour employed in the adjacent agricultural sectors are employed in Sun City construction activities			
Impact Description: Costs to the adjacent agricultural sector to retrain unskilled workers after their labour force has been drawn to construction work at Sun City			
Prior to Mitigation/Management			
Duration	Long term (4)	Expected to last for the duration of the construction phase. Due to phasing of activities, this can be between 6-15 years.	Minor (negative) (-44)
Extent	Municipal (4)	Within the local agricultural sector	
Intensity	Moderate (3)	On-going social issues to occur over a prolonged time period.	
Probability	Probable (4)	More opportunities and upward mobility could attract unskilled workers in the agricultural sector	
Nature	Negative (-)	Negative impact on agriculture sector – increased cost to recruit and re-train new workers	
Mitigation/Management Actions			
▪ Formulate a labour recruitment strategy that would minimise impact on other sectors (e.g. do not recruit unskilled labour at wage levels above the wages paid in the agricultural sector) ▪ Establish a liaison point with the adjacent farming community to monitor the impact on their local labour force			
Post-Mitigation			
Duration	Medium term (3)	Duration reduced as impacts are managed by contractors	Negligible (negative) (-27)
Extent	Municipal (4)	Still possible within local municipal area	
Intensity x type of impact	Minor (2)	Minor ad-hoc social issues can still occur	
Probability	Unlikely (3)	Even through recruitment strategy is followed and impacts are monitored some workers might still get employed due to limited information supplied	
Nature	Negative (-)	Negative impact on agriculture sector – increased cost to recruit and re-train new workers	

5.2.1.2 Potential negative impact on other business activities

Sun City Water World (SSWW), an independent operator occupying the recreational lake and surrounding land facilities could potentially be negatively affected during the construction phase. SSWW employed approximately 45 full time employees and operate a number of facilities in proximity to the proposed Lake Beach expansion including the Kazooma Raceway, boat jetties, mini golf, restaurant, boat launching facilities and beach shop. The recreational lake beach expansion is expected to last 6 months and is scheduled for 2023.

Impact Rating

Dimension	Rating	Motivation	Significance
Negative impact on other business activities			
Impact Description: Potential job and income losses to Sun City Water World due to the construction activities			
Prior to Mitigation/Management			
Duration	Medium (3)	The recreational lake beach expansion is expected to last 6 months. Larger construction works in other areas could also disrupt activities over a 4 year period	Minor (negative) (-40)
Extent	Limited (2)	Within the Sun City area	
Intensity	Moderate (3)	The activities could potentially impact negatively on 45 jobs	
Probability	Likely (5)	There is a likelihood given the proximity and disruptive nature of the intervention	
Nature	Negative (-)	Potential income and job losses	
Mitigation/Management Actions			
▪ Sun City Exco should collaborate with business such as SSWW in the planning of the construction phasing and timing to ensure minimum disruption in business activities ▪ Sun City Exco should facilitate the establishment of a communication channel between contractors and SSWW and other businesses (if relevant)			
Post-Mitigation			
Duration	Medium term (3)	Incidents can still occur over the medium term	Negligible (negative) (-24)
Extent	Isolated (1)	Within the Sun City area	
Intensity x type of impact	Minor (2)	Minor disruptions could still occur	
Probability	Probable (4)	Minor disruptions could still occur	
Nature	Negative (-)	Potential income and job losses	

5.2.1.3 Positive impact on employment and income creation[2]

Based on high level estimates provided by the client, the total construction costs are estimated to be close to R 1bn (constant 2018 prices) over a 15 year period, with an estimated 90% spent within the first 5 years and the remaining 10% spent the last two years of the 15 year construction period.

Based on these assumptions the total Gross Value Added (GVA) (profit, salaries and wages) generated from construction at Sun City could be close to R 144m per year for the first 5 years of construction with close to 600 full time job opportunities created during this period. Of these job opportunities around 344 could be directly linked to the construction activities in the Sun City area while 253 jobs would be linked to either jobs at suppliers to the construction companies or jobs related to higher spending from the increased number of jobs and income (see Table 5-1). The 'flow-on' jobs would more likely be created in the larger Bojanala region and even nationally. Close to 30% of the jobs could be unskilled while 15% of the income generated could potentially flow to low income households.

Table 5-1: Annual construction impacts - the first 5 years of the construction period

Type of impact	GVA (constant prices)	Employment	Unskilled employment	Income to low income households (constant prices)
	Rand	N	N	Rand
Direct	57,600,000	344	127	9,216,000
Flow-on	86,584,320	253	51	12,121,805
Total	**144,184,320**	**597**	**178**	**21,337,805**

Sources: Based on (Stats SA, 2017); (DBSA, 2007)

The employment created during the construction phase is about 1.5% of the 40,000 jobs in the formal economy of MKLM – a very high percentage for a single project.

The 127 unskilled jobs created on site in the first 5 years of construction is also relatively high (8%) compared to the estimated 1,650 unemployed and discouraged workers in Wards 13 and 14 of MKLM (BPDM, 2018).

After 5 years construction activities are expected to cease for about 8 years before the final construction works in the last 2 years of the 15 year period. The construction impact is expected to be substantially lower than during the first five years of construction as illustrated in Table 5-2.

[2] Information in this section is based on high level estimates of direct construction spending by the client as well as input-output modelling for the flow-on impacts

Table 5-2: Annual construction impacts - the last 2 years of the construction period

Type of impact	GVA (constant prices)	Employment	Unskilled employment	Income to low income households (constant prices)
	Rand	N	N	%
Direct	6,400,000	38	14	1,024,000
Flow-on	9,620,480	28	6	1,346,867
Total	**16,020,480**	**66**	**20**	**2,370,867**

Sources: Based on (Stats SA, 2017); (DBSA, 2007)

Impact Rating

Dimension	Rating	Motivation	Significance
Jobs and income during the construction phase			
Impact Description: Employment and income generation for 7 years spread over the total construction period of 15 years			
Prior to Mitigation/Management			
Duration	Medium term (3)	Jobs and income for 7 years over 15 years	Minor (positive) (+66)
Extent	Municipal area (4)	Direct jobs to local community (unskilled) and flow-on jobs to larger region	
Intensity	Moderate (4)	Noticeable impact on local low income households	
Probability	Highly probable (6)	There is availability of unskilled and unemployed labour in local area. The municipal area has construction suppliers	
Nature	Positive (+)		
Mitigation/Management Actions			
▪ Prioritise local labour in the recruitment process as part of the company's own recruitment policy or as part of contractor management plan ▪ Unskilled construction workers are recruited from the local village and up-skilled during construction works ▪ Medium skilled construction workers should where possible be recruited from the local villages surrounding the site ▪ Locals should also be allowed an opportunity to be included in a list of possible local suppliers and service providers for e.g. security services			

Dimension	Rating	Motivation	Significance
Post-Mitigation			
Duration	Long term (4)	Up-skilling of local labour force could have longer term positive impacts on local community	Moderate (positive) (+72)
Extent	Municipal area (4)	Direct jobs to local community (unskilled) and flow-on jobs to larger region	
Intensity x type of impact	Moderate (4)	Noticeable impact on local low income households	
Probability	Highly probable (6)	There is availability of unskilled and unemployed labour in local area. The municipal area has construction suppliers	
Nature	Positive (+)		

5.2.1.4 Tax income

The increased economic activity during the construction phase will increase central government revenues during the construction phase due to increased income taxes, value added taxes and taxes on contractors' profits. The general tax income per R1 of GVA generated in the country is about 0.32c implying that the total GVA generated per annum during the construction phase could increase central government tax income by an estimated R 46m (R 144m X 0.32) on average per annum during the first five years and R5m (R16m X 0.32) per annum during the last two years.

Impact Rating

Dimension	Rating	Motivation	Significance
Increase in government tax income due to increase in income and spending levels during construction			
Impact Description: Increase in central government revenues during the construction phase due to increased income taxes, value added taxes and taxes on contractors' profits.			
Prior to Mitigation/Management			
Duration	Medium term (3)	Tax income due to increase in jobs and income for 7 years over 15 years	Moderate (positive) (+84)
Extent	National (6)	Tax income to central government	
Intensity x type of impact	Average (3)	Depending where funds are spent	
Probability	Certain (7)	Highly probable - certain due to legal requirements	
Nature	Positive +		

Dimension	Rating	Motivation	Significance
Mitigation/Management Actions			
▪ None			

5.2.2 Operational Phase

5.2.2.1 Employment and income creation

It is expected that with an increased overnight capacity to accommodate another estimated 2,705 guests, the facility at Sun City will create additional income, GVA and require operational staff on a full-time and part-time basis. Apart from the additional capacity, the expansion of the facility will also require increased maintenance on an on-going basis (over and above MP1 and MP2).

Based on current occupancy rates (Hasenfuss, 2018) and the rates for different establishments at the Resort, a high level estimate is that this expansion project could increase direct and flow-on GVA with R 763m per annum and create in total some 4,600 full time equivalent jobs, as indicated in Table 5.3 below.

The direct impact of the facility itself could be an annual income (profit and salaries and wages) increase of R 390m with some R 63m (16%) flowing to low income households. If all the unskilled labour in the operations of the new facilities (an estimated 686) are recruited from the adjacent Wards 13 and 14 of MKLM, the project could increase the total household income generate in these wards with more than 20%[3]. The number of unskilled jobs that could be created during operations and maintenance (686) could furthermore make a significant impact on the estimated 1,650 unemployed and discouraged workers in the local wards close to the project.

[3] This calculation was based the average annual household income of approximately R 50,000 (Census 2011) x 5,200 households (total number of households in two affected wards) = R 260m total income. R 63m as a portion of R 260m = 24%.

Table 5-3: Annual operational impacts after 5 years

Type of impact	GVA (constant prices)	Employment	Unskilled employment	Income to low income households (constant prices)
	Rand	N	N	Rand
Direct	393,601,575	3,425	686	63,039,252
Flow-on	369,809,975	1,193	239	59,169,596
Total	**763,411,550**	**4,618**	**925**	**122,208,848**

Sources: Based on (Stats SA, 2017); (DBSA, 2007); (Hasenfuss, 2018)

It should however be noted that while the net impact on employment creation will be positive, there is a risk that some activities at Sun City Water World could experience negative impacts depending on the design of the new facilities. The expansion of the recreation beach area could have potential negative impacts on the current infrastructure (e.g. jetties) that SSWW uses in its operations. The impact on SSWW will very much depend on the design of the planned expansion.

Impact Rating

Dimension	Rating	Motivation	Significance
Jobs and income during operations			
Impact Description: Employment and income generation during operations (after 5 years construction)			
Prior to Mitigation/Management			
Duration	Project Life (5)	Jobs and income during the life the project	Moderate (positive) (+84)
Extent	Municipal area (4)	Direct jobs to local community (unskilled) and flow-on jobs to larger region	
Intensity x type of impact	Widespread benefits (5)	Noticeable impact on local low income households	
Probability	Highly probable (6)	There is availability of unskilled and unemployed labour in local area. The municipal area has construction suppliers	
Nature	Positive (+)		
Mitigation/Management Actions			

Dimension	Rating	Motivation	Significance
▪ Prioritise local labour in the recruitment process – this will also limit project-induced in-migration to some extent. ▪ Unskilled workers are recruited from the local village and should be developed (up-skilled) during operations. ▪ Medium skilled workers should where possible be recruited from the local villages surrounding Sun City (e.g. Ledig and South Village). ▪ Locals should also be allowed an opportunity to be included in a list of possible local suppliers and service providers for e.g. security services. ▪ Sun City exco should involve SSWW in the planning of its recreational beach area to ensure that the company incurs to long terms losses.			
Post-Mitigation			
Duration	Project Life (5)	Jobs and income during the life the project	Moderate (positive) (+90)
Extent	Municipal area (4)	Direct jobs to local community (unskilled) and flow-on jobs to larger region	
Intensity x type of impact	Great improvement for large % of local community (6)	Up-skilling of local labour force could have higher positive impacts on local community	
Probability	Highly probable (6)	There is availability of unskilled and unemployed labour in local area. The municipal area has construction suppliers	
Nature	Positive (+)		

5.2.2.2 Tax income

The increased economic activity during the operations phase will increase central government revenues due to increased income taxes; value added taxes and taxes on contractors' profits. The general tax income per R1 of GVA generated in the country is about 0.32c implying that the total GVA generated per annum during the operational phase could increase central government tax income by an estimated R 244m (R763m X 0.32) on average per annum after completion of all the income generation projects within the next 5 years (2023).

Impact Rating

Dimension	Rating	Motivation	Significance
Increase in government tax income due to increase in income and spending levels during operations			
Impact Description: Increase in central government revenues during the operational phase to increased income taxes, value added taxes and taxes on profits.			
Prior to Mitigation/Management			
Duration	Project Life (5))	Tax income due to increase in jobs and income over lifetime o project	Moderate (positive) (+98)
Extent	National (6)	Tax income to central government	
Intensity x type of impact	Average (3)	Depending where funds are spent	
Probability	Certain (7)	Highly probable - certain due to legal requirements	
Nature	Positive +		

5.3 Geographical Processes

Geographical processes refer to those activities that affect the land use pattern of the local communities (and region as a whole). The current land use was described in Section 4.3.2.

5.3.1 Construction Phase

5.3.1.1 Conversion and diversification of land use

All of the proposed projects at the SCC will lead to a change in the way the land is currently utilised – more so those activities that will lead to the conversion of vacant land to built-up land (e.g. all of the Resort Expansion Projects). However, the change in land use is consistent with the directly surrounding land use and within the SCC's fenced area (the exceptions being REP4.2 and USP2) and is therefore considered as *extensification* (i.e. expanding an existing land use with similar activities), which will not have a direct socio-economic impact on other local land users.

REP4.2 (Vacation Club Phase 4, planned for construction around 2022-2023) and USP2 (water reservoirs, constructed in 2020) are located in the resort's undeveloped area, which would require fencing. REP4.2 will be located within 1 km of the Bakubung Bush Lodge, which is located in the Pilansberg National Park. Although in a greenfields area of the SCC, REP4.2 does not encroach on Pilansberg's land use. Some impacts could result for land users of Pilansberg during the construction phase of the additional units (e.g. dust and noise) – more so for users of nearby Bakubung Bush Lodge, which would detract from their tourist experience. In addition to the bush lodge, a number of scattered houses (4) are

located close to the REP4.2 development area. An overview of social sensitive receptors in relation to REP4.2 is provided in Figure 5-3.

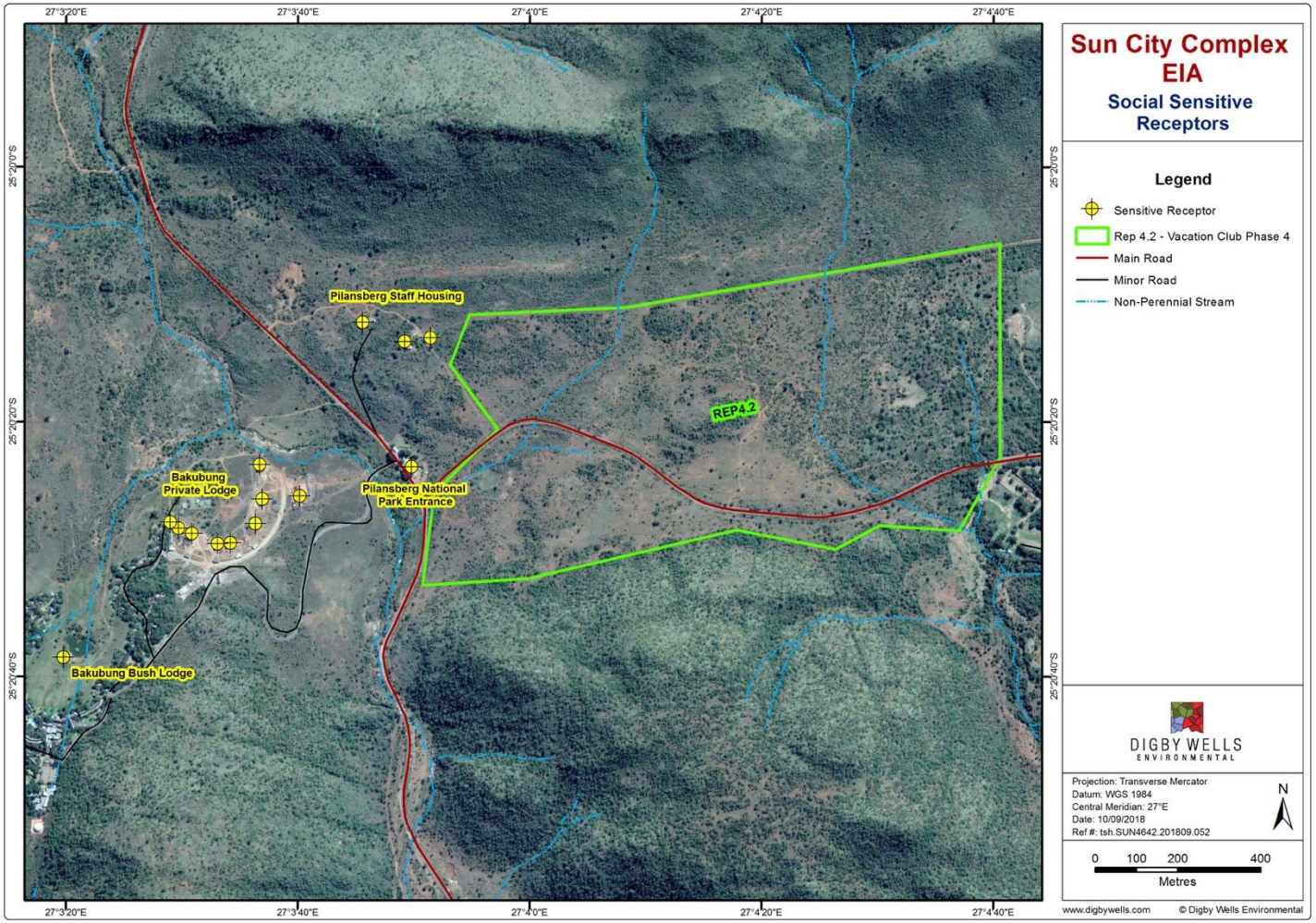

Figure 5-3: Social sensitive receptors in close proximity to REP4.2

Impact Rating

Dimension	Rating	Motivation	Significance
Conversion and diversification of land use			
Impact Description: The process of converting greenfield land use with little ambient noise could cause visual and noise intrusion during construction and detract from the land use experience at nearby attractions not associated with the SCC (specifically the Bakubung Bush Lodge and other nearby attractions within the Pilansberg National Park).			
Prior to Mitigation/Management			
Duration	Medium term (3)	The construction phase of VEP4.2 will last for at least 2 years.	Minor (negative) (-66)
Extent	Local (3)	Parts of the Bakubung Bush Lodge is located in an open plain within 500m of the REP4.2 construction area.	
Intensity	High (5)	Pilansberg National Park in general and the Bakubung Bush Lodge specifically, are regarded as highly sensitive environs due to the exclusivity of the lodge and the pristine natural environment.	
Probability	Almost certain (6)	Parts of the bush lodge is located on an open plain with direct views on the REP4.2 construction area. Unmitigated it is almost certain that visitors to this part of the lodge would be able to see and hear construction activities and possibly be affected by dust emissions from the construction site.	
Nature	Negative (-1)		
Mitigation/Management Actions			
▪ Implement mitigation measures as described in the Visual and Noise Impact Assessment specialist reports.			
Post-Mitigation			
Duration	Medium term (3)	The construction phase of VEP4.2 will last for at least 2 years.	Negligible (negative) (-32)
Extent	Limited (2)	With the implementation of mitigation measures, the extent of the impact could be mostly limited to the construction site itself.	

Dimension	Rating	Motivation	Significance
Intensity	Moderate (3)	It is expected that the noise and visual impact would continue to cause ongoing social issues, but that the sensitivity of the receptors could be lowered through the implementation of mitigation measures.	
Probability	Probable (4)		
Nature	Negative (-1)		

5.3.2 Operational Phase

The change in land use during the operational phase relates to an expanded resort which will create employment and broaden the tax base (i.e. economic impacts). These have been assessed in detail in Sections 5.2.2.1 and 5.2.2.2.

5.4 Institutional and Empowerment Processes

Institutional and legal processes consider changes that affect the efficacy of local organisations to supply essential goods and services.

5.4.1 Construction Phase

As mentioned in Section 5.1.1.1, project-induced in-migration in itself is not an impact but a change process that brings about impacts in other areas of the local socio-economic environment. As an institutional and legal change process, this has to do with the local municipality's ability to continue to deliver services such as health and safety facilities, education, municipal services, etc.

5.4.1.1 Increased demand for housing and other municipal services

An influx of around 344 people to the area would bring about an additional demand for housing and associated municipal services. However, construction team members who are not from the local area will be accommodate on-site at the business inn units, whereas Sun International stipulate in their conditions of tender that contractors use local labour as far as possible[4]. Both these interventions will negate the need for the local authority to provide municipal services to an off-site construction camp and therefore it is not foreseen that the construction Project would cause a widespread or significant increased demand for housing or municipal services.

Impact Rating

[4] E-mail communication with Mr. D Boshoff, SHE Manager, Sun International

Dimension	Rating	Motivation	Significance
Increased demand for housing and other municipal services			
Impact Description: Construction activities requires construction teams and attracts job seekers. Arrival of newcomers can disrupt social cohesion of local communities and place additional strain on local resources			
Prior to Mitigation/Management			
Duration	Long term (4)	Expected to last for the duration of the construction phase. Due to phasing of activities, this can be between 6-15 years.	Minor (negative) (-44)
Extent	Local (3)	Construction teams based at site, might be accommodated in local area. Job seekers may loiter at site in hope of securing employment but live and impact mostly on local area.	
Intensity	Moderate (3)	Ongoing social issues to occur over a prolonged time period.	
Probability	Probable (4)	Project-induced in-migration occurs on almost every visible development.	
Nature	Negative (-1)		
Mitigation/Management Actions			
▪ Open a skills registration desk/service prior to construction to allow members of the local labour pool and local SMMEs to register their interest, skills and experience. This will assist in determining the availability of local talent. ▪ Ensure future project information leaflets include workforce estimates, skills required and Sun City's recruitment policy for labour, goods and services. This can also be communicated to local communities through newsletters or placing an advert in the local newspaper. ▪ Include local content requirements in contractor BIDs and tenders and ensure a certain percentage of local hire is a condition of contract. ▪ Accommodate construction team members on-site in business units as far as possible to avoid the need for additional housing or a temporary construction camp. ▪ Avoid hiring at the gate practices.			
Post-Mitigation			
Duration	Medium term (3)	Duration reduced as impacts are managed by contractors	Negligible (negative) -21
Extent	Limited (2)	Area of impact reduced to site as job seekers are proactive discouraged from travelling to the area	
Intensity	Minor (2)	Minor ad-hoc social issues can still occur	

Dimension	Rating	Motivation	Significance
Probability	Unlikely (3)	Job seekers will be discouraged from traveling to site if they are aware of labour hiring practices upfront	
Nature	Negative (-1)		

5.4.2 Operational Phase

The operational phase of especially the REPs will also expand the SCC's needs in terms of service delivery on the one hand, but also enable to group to build the capacity of the local area through its CSI initiatives.

5.4.2.1 Increased demand for municipal services

Sun City currently obtains its electricity directly from Eskom and its water from Magalies Water. To ensure an uninterrupted service to its visitors and residents and to support the various service providers, the SCC are proposing a number of Utility and Services projects (see Table 2-2 in Section 2.3). The USPs relevant to municipal services are summarised as follows:

- Additional reservoirs up to a capacity of 20,000 cubic litres to supplement their existing water storage capacity (USP2);
- Decommissioning of the existing Ledig sewerage line and establishing a new Waste Water Treatment Works (WWTW) (USP5);
- South Village pipeline, to supply water from the Doornkop reservoir in the south of the SCC to nearby South Village (USP6); and
- Generator Park, which would entail consolidating the 13 generators throughout the SCC into one area (USP7).

Grey water at the resort is currently treated at its own WWTW and used to irrigate the golf courses. This helps to reduce the effluent discharged into the municipal system and alleviates the strain on this system.

The Sun International Group committed to a process to ensure an environmentally responsible operation to ensure a "safe and pristine environment" for their guests, employees and stakeholders affected by their operations. Part of this drive includes the decommissioning of the Sun City landfill site in 2019 to move to zero-waste-to-landfill by 2020, by introducing a waste-to-energy project (Sun International Integrated Annual Report, 2017). A basic assessment was submitted to the Department of Environmental affairs for the latter project and is currently under review – this study therefore will not assess the impacts that this project could have on the socio-economic environment bar the fact that it would minimise any negative impacts on the local authority.

Impact Rating

Dimension	Rating	Motivation	Significance
Increased demand for municipal services			
Impact Description: The facilities under the REPs would require additional services (electricity, water, waste and sewerage removal) – these services would need to accommodate an additional 596 units (345 free standing, 250 rooms in the hotel and the convention centre), which could place strain on the local system.			
Prior to Mitigation/Management			
Duration	Project life (5)	The impact will remain for as long as the SCC requires municipal services, i.e. the operational lifespan of the complex.	Minor (negative) (-36)
Extent	Municipal area (4)	A disruption in services due to too a high strain placed on the system could affect the whole municipal system.	
Intensity	Moderate (3)	Ongoing social issues to occur over a prolonged time period.	
Probability	Unlikely (3)	SCC has implemented measures to support the local authority and therefore services have not been disrupted in the past as a sole result of the resort overburdening the system.	
Nature	Negative (-1)		
Mitigation/Management Actions			

▪ Consider and implement mitigation measures suggested in various other specialist studies, including:
  ○ The Basic Assessment for the Waste-to-Energy project (EAP unknown)
  ○ The groundwater and surface water impact assessment reports (Digby Wells, 2018)
  ○ The EIA for the closure of the Sun City landfill site (Jones & Wagener, 2017)
▪ USPs must be implemented in close coordination with the local municipality to ensure that local systems are able to accommodate an increase in discharge from the resort – this is especially relevant during high season when the resort is operating at full (or near full) capacity.
▪ Where local municipal services are under strain, consider supporting the local authority with upgrades through the Sun International's CSI (e.g. as is planned with the South Village water pipeline [USP6]).			

Post-Mitigation			
Duration	Project life (5)	The impact will remain for as long as the SCC requires municipal services, i.e. the operational lifespan of the complex.	Negligible (negative)

Dimension	Rating	Motivation	Significance
Extent	Local (3)	Impacts can be contained to the SCC itself and the immediate area	(-20)
Intensity	Minor (2)	Because the extent of the impact can be contained, social impacts will be minor and potential damages to the system are repairable.	
Probability	Improbable (2)	With the implementation of mitigation measures, the possibility of the impact materialising is extremely low.	
Nature	Negative (-1)		

5.4.2.2 Corporate Social Investment

The Sun International group view community investment as an integral part of their social license to operate. The group has an existing Socio-economic Development (SED) strategy in the form of a "Creating Shared Value" model that aims to align the group's operational needs with that of the local communities in which they operate. The group's SED objectives and focus areas include the following:

- **Education**: this programme not only includes the upgrading and refurbishment of schools in communities directly and indirectly affected by their operations, but also new appliances and running water to support hospitality studies learners – known as the Digital Hospitality Curriculum Programme, which was developed in partnership with the Department of Basic Education;
- **Sports Development**: the focus of this programme is to allow children from local communities to develop and participate in sports; and
- **Arts and Culture**: Sun International is a founding trustee of the Arts and Culture Trust (ACT), which supports upcoming local artists.

All of these programmes underscore the group's commitment to capacity building of local communities to increase their knowledge, networking capacity and skills base. In general, capacity building initiatives are more sustainable than infrastructure development projects because people are mobile and able to transfer and expand their skills. It is expected that Sun City will continue with the implementation of their CSI programmes and possibly expand such programmes in their area of operation to match their increase in revenue.

Impact Rating

Dimension	Rating	Motivation	Significance
Corporate Social Investment			
Impact Description: The expanded version of Sun City will generate more income (see Section 5.2.2), which will allow the group to extend their investment in local communities.			

Dimension	Rating	Motivation	Significance
Prior to Mitigation/Management			
Duration	Project life (5)	The impact will remain for as long as the SCC requires municipal services, i.e. the operational lifespan of the complex.	Minor (positive) (+55)
Extent	Local (3)	The CSI programs will mostly benefit the directly affected communities.	
Intensity	Low (3)	The extend of investment will enhance local development initiatives.	
Probability	Likely (5)	Sun City are committed to invest in local communities.	
Nature	Positive (+1)		
Mitigation/Management Actions			
▪ Consult with local community leadership to determine actual needs in local community to determine if there is scope within the CSI to address these. ▪ Consult with local and district authorities to determine their development needs and how Sun City CSI can comply with development needs in the local and district IDPs. ▪ Consider regional development programs that are aimed at CSI in the province but do not focus investment solely on local communities – this will also help address the issue of project-induced in-migration to an extent if Sun City aids communities further than their immediate area of impact (e.g. assistance to communities at the N4 turn-off could help minimise the risk for protests).			
Post-Mitigation			
Duration	Project life (5)	The impact will remain for as long as the SCC requires municipal services, i.e. the operational lifespan of the complex.	Moderate (positive) (+80)
Extent	Province / region (5)	The impact could be extended to the region through consultation with the appropriate authorities to determine development needs.	
Intensity	High (6)	Great improvement to the overall condition of a large percentage of the region/province. .	
Probability	Likely (5)	Sun City are committed to invest in local communities.	
Nature	Positive (+1)		

5.5 Socio-Cultural Processes

This section will consider the effect that the proposed expansion and maintenance projects at Sun City will have on the macro cosmos (i.e. considering how changes at the resort will affect the lifestyle of neighbouring communities) and the more micro cosmos of residents and visitors to the resort.

5.5.1 Construction Phase

5.5.1.1 Risk for Social Disintegration and Conflict

The arrival of newcomers can create social difference within a community. Local cultures usually have well-developed systems that allow them to cope with a certain degree of change, but when change is too rapid, a disregard for local social norms could be experienced leading to social disintegration. This happens when newcomers are not from the same cultural background as locals and because migrant workers are only in the area for a set period of time, they often do no assimilate into the local culture. An additional layer of risk is if local communities perceive new comers/construction workers as a threat to their own ability to secure employment on the Project.

Although social unrest does not seem to be commonplace at the resort itself (last online evidence found of protests at the resort were in 2014 when workers protested to have their dismissed colleagues reinstated), the possibility of demonstrations cannot be excluded. For example, community protests occurred more recently in nearby Ledig over missing tribunal funds – although these protests are not directly linked to Sun City's operations, they do have an impact on the resort if it prohibits visitors from travelling to or entering the SCC.

Although this SIA focuses primarily on the risk for social disintegration and conflict in the immediate study area, it should be noted that protests further afield at Bapong and Modderfontein (villages at the N4 turn-off to Sun City) could also threaten Sun City's operations as protests at these areas block visitors main access road to the resort.

Impact Rating

Dimension	Rating	Motivation	Significance
Risk for Social Disintegration and Conflict			
Impact Description: Differences in social and cultural background can heighten conflict situations, more so if local perceive newcomers as taking away their opportunities and adding to their hardship.			
Prior to Mitigation/Management			
Duration	Medium (3)	The risk for conflict will last for the full 5 years as the various projects have different starting times and timeframes.	Minor (negative) (-40)

Dimension	Rating	Motivation	Significance
Extent	Local (3)	The impact is not expected to go wider than the immediate area where job seekers and construction workers are likely to spend some of their time.	
Intensity	Moderate (4)	Protests in SA over the past few years were characterised by violence and destruction of property.	
Probability	Probable (4)	Protests are an almost common day occurrence for frustrated community members to make themselves heard.	
Nature	Negative (-1)		
Mitigation/Management Actions			
▪ Continuous stakeholder engagement is required to keep local communities (and visitors to the resort) informed of progress, upcoming activities and job opportunities available. ▪ Discourage job seekers from travelling to the area by publishing the Project's employment policy upfront and referring job seekers to the relevant contractors. Make it clear that no persons will be hired at the gate and that casual day labour is not available. ▪ Keep housekeeping and maintenance staff informed of project progress and any available job opportunities – they often relay information to friends and family members at home, so factual information would help to curb rumours and hearsay. ▪ Identify development projects through the group's CSI and in consultation with the local authority that could benefit the community as a whole. ▪ Establish a grievance platform for local residents to lodge complaints and address these within a reasonable timeframe.			
Post-Mitigation			
Duration	Medium (3)	The risk for conflict will remain throughout the construction period of 5 years.	Negligible (negative) (-21)
Extent	Limited (2)	The extent could be contained to the Sun City area by preventing job seekers to travel to site.	
Intensity	Minor (2)	If large-scale protests are avoided, continuous social problems are unlikely.	
Probability	Unlikely (3)	The risk would be reduced significantly through timely information sharing.	
Nature	Negative (-1)		

5.5.1.2 Nuisance Factors

During an interview conducted with Vacation Club members who have been frequenting Sun City for the past decade, they indicated that they enjoy Sun City as a holiday destination for the following reasons:

- Safety: visitors feel extremely safe within the complex due to 24/7 visible patrols;
- Excellent service: maintenance issues are repaired within an hour and the bus service makes it easy to move around within the complex;
- Value for money: the cost of the timeshare at the vacation club offers good value for money;
- Family orientated: the entertainment offered at the complex caters for family members of all ages;
- Quiet: during the week the complex is not so busy, and one is not aware of other people around; and
- Cleanliness: units are very clean and serviced daily.

It is also considered a plus point that Sun City is located within a 1-2 hour drive from main cities such as Johannesburg and Pretoria and so close to Pilansberg National Park.

Given these reasons, nuisance factors during the construction phase would be prominent as it is likely to create dust and noise. In addition, people often feel unsafe in an area where construction takes place – they feel that construction workers monitor their movements and take note of their possessions. Even if this is only a perception, it does impact on people's sense of security – more so if they feel that a space they previously regarded as "extremely safe" is now "invaded".

Impact Rating

Dimension	Rating	Motivation	Significance
Nuisance Factors			
Impact Description: Construction activities can cause noise and dust, which will affect visitors' experience at Sun City. They might choose not to return until construction activities cease.			
Prior to Mitigation/Management			
Duration	Medium (3)	Nuisance factors will be present in varying degrees for the duration of construction activities (up to 5 years)	Minor (negative) (-40)
Extent	Limited (2)	Nuisance factors not expected to extend very far beyond the boundary site and be contained within the SCC.	
Intensity	Low (3)	Could affect tourist experience (ongoing social issues)	

Dimension	Rating	Motivation	Significance
Probability	Likely (5)	Nuisance factors in itself will likely occur, but experience of these depend on the individual	
Nature	Negative (-1)		
Mitigation/Management Actions			
▪ Erect a wall between existing VC units and construction activities to shield visitors from dust and noise. This will also create a sense that construction work and workers are 'contained' and enhance visitors' sense of safety and security. ▪ Access to construction activities must be access controlled. Construction workers must be identifiable when they move around in the resort. ▪ Erect notice boards to inform visitors of types and duration of construction activities. Include a hotline number where they can lodge complaints if activities occur that are outside those displayed. ▪ Where possible, only book visitors into units that are far away from construction activities.			
Post-Mitigation			
Duration	Medium (3)	Nuisance factors will be present in varying degrees for the duration of construction activities (up to 5 years)	Negligible (negative) (-18)
Extent	Isolated (1)	Impacts can be contained to the actual construction site. Visitors will be free to enjoy other amenities without interruption.	
Intensity	Minor (2)	Social impacts will be minor and medium-term and restricted to individuals.	
Probability	Unlikely (3)	Widespread impacts are restricted to the site and individuals in close proximity to the site.	
Nature	Negative (-1)		

5.5.2 Operational Phase

Because all of the projects will take place within the confines of the SCC's boundaries, it is not expected that the resort in its expanded form will have any significant impacts on the socio-cultural interaction of local communities during the operational phase.

5.6 Cumulative Impacts

Cumulative impacts are defined as impacts arising from the combined effects of two or more Projects or actions. The importance of identifying and assessing cumulative impacts stems from the fact that, in social as well as natural systems, the whole is often more than the sum of its parts – implying that the total effect of multiple stressors or change processes acting

simultaneously on a system may be greater than the effects when acting in isolation. Cumulative impacts usually relate to large-scale and more extensive impacts rather than primary concentrated impacts and tend to increase the intensity of impacts already predicted for the Project.

The aim of this section is to highlight the nature of cumulative socio-economic impacts that are expected to occur as a result of the combined effect of the expansion and maintenance projects at Sun City and other current or planned projects in the area – specifically overlapping of projects within the resort itself, the expansion of the Bakubung Bush Lodge and the Ledig Housing Project. The following cumulative impacts were identified:

- Job creation; and
- Impacts related to population influx.

5.6.1 Job creation

Sun City and other tourist attractions in the area (e.g. lodges within Pilansberg National Park), already employ substantial numbers of people. Other developments (e.g. the expansion at the Bakubung Bush Lodge and the Bakubung/Ledig mixed use housing development) will potentially add to the number of people employed in the tourist and construction sectors. It is therefore expected that job creation in the area will be enhanced through these projects, albeit of a temporary nature (1-5 years).

5.6.2 Impacts related to population influx

The area is likely to experience some influx of people in the form of various construction teams. Population influx in itself is not an impact but would rather place additional strain on existing infrastructure and services. Although the developments at Sun City itself are unlikely to cause large-scale influx, it coincides with other developments in the local municipal area (e.g. the expansion of the Bakubung Bush Lodge, the Ledig housing development and mining operations), which cumulatively could attract people to the area.

Electricity in Ledig (the closest settlement to Sun City at approximately 1.5km southwest of its main entrance) is supplied by Eskom; primarily through rural overhead connections with limited capacity (Bechan, 2017). These connections are now at capacity and will not be able to supply any new developments. To address this, Eskom is proposing establishing a new substation in Ledig, which would alleviate the strain on supply but add to the population influx.

As is the case with job creation, the influx of people to the area is not expected to last beyond the construction phases of the various projects. It is also likely to cease before the construction activities come to an end when job seeker are unable to secure employment by loitering at construction sites. The potential of casual labour at Sun City might cause some people to remain in the area, but casual labour in the hospitality industry is not as visible and lucrative as is the case with the construction sector and therefore such the number of job seeker remaining in the area long term, are expected to be minimal.

6 Conclusions

The findings of this report take into consideration the Project's proposed activities, location of the Project, the status of the existing socio-economic environment, and the ultimate effect that the Project will have on this environment. The pre- and post-mitigation ratings assigned to the various impacts discussed in the report are summarised in Table 6-1.

From this summary, it is evident that the construction phase is mostly characterised by negative impacts – but these are largely due to the types of activities that take place during this phase and because the construction phase is limited to around 5 years, expected to be mostly temporary in nature. None of these negative impacts are considered irreversible or expected to cause irreplaceable damage to the socio-economic environment.

The operations phase, on the other hand, is characterised by more positive impacts that are also expected to last for the duration of project life (i.e. the operational lifespan of Sun City). These impacts mostly related to the sustainable development of not only the local economy (through Sun International's CSI programme), but also the region as a whole (through an increase in the national tax base). Therefore, the impacts of the construction phase that are short-term and mostly limited to the local area, will be outweighed by the more longer-term, widespread positive impacts of the operational phase. Adequate mitigation measures are expected to reduce the significance of negative impacts to acceptable levels, while positive impacts will be enhanced in order to maximise benefits to surrounding communities.

It is recommended that the mitigation measures described in the report be incorporated into the Environmental Management Programme for the proposed Sun City expansion projects and, where relevant, into the contract conditions to be issued to the contractors. Measures should also be put in place to monitor and assess the implementation of these mitigation measures and to take corrective action where necessary.

Table 6-1: Summary of Socio-Economic Impacts

Change Process	Impact	Pre-Mitigation					Post-Mitigation				
		Duration	Extent	Intensity	Probability	Significance	Duration	Extent	Intensity	Probability	Significance
CONSTRUCTION PHASE											
Economic	Labour drawn down from agriculture sector	Long term	Municipal	Moderate	Probable	Minor negative	Medium term	Municipal	Minor	Unlikely	Negligible negative
	Potential negative impact on other business activities	Medium term	Limited	Moderate	Likely	Minor negative	Medium term	Isolated	Minor	Probable	Negligible negative
	Employment and income creation	Medium term	Municipal	Moderate	Highly probable	Minor positive	Long term	Municipal	Moderate	Highly probable	Moderate positive
	Tax income	Medium term	National	Average	Certain	Moderate positive	Medium term	National	Average	Certain	Moderate positive
Geographic	Conversion and diversification of land use	Medium term	Local	High	Almost certain	Minor negative	Medium term	Limited	Moderate	Probable	Negligible negative
Institutional and Empowerment	Increased demand for housing and other municipal services	Long term	Local	Moderate	Probable	Minor negative	Medium term	Limited	Minor	Unlikely	Negligible negative
Socio-Cultural	Risk for social disintegration and conflict	Medium term	Local	Moderate	Probable	Minor negative	Medium term	Limited	Minor	Unlikely	Negligible negative
	Nuisance factors	Medium term	Limited	Low	Likely	Minor negative	Medium term	Isolated	Minor	Unlikely	Negligible negative
OPERATIONAL PHASE											
Economic	Employment and income creation	Project life	Municipal	Widespread benefits	Highly probable	Moderate positive	Project life	Municipal	High	Highly probable	Moderate positive
	Tax income	Project life	National	Average	Certain	Moderate positive	Project life	National	Average	Certain	Moderate positive
Institutional and Empowerment	Increased demand for municipal services	Project life	Municipal	Moderate	Unlikely	Minor negative	Project life	Local	Minor	Improbable	Negligible negative
	Corporate social investment	Project life	Local	Low	Likely	Minor positive	Project life	Province / region	High	Likely	Moderate positive

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