Appendix P:
Social Specialist Impact Assessment
Proposed New Largo Colliery and R545 road deviation in the Emalahleni area

Social Impact Assessment

(EIA-Report Number: S0403-NLC-SOC-00-Social-Impact-Assessment)

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Prepared for:

Synergistics Environmental Services (Pty) Ltd

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A. Study Approach

Study Methodology

Scientific social research methods were used for the assessment. Firstly, a literature study was performed to obtain secondary data for the baseline description of the socio-economic environment. The information for the baseline study was acquired via statistical data obtained from Statistics South Africa, SIA literature (see References), the public participation process, previous EIA and SIA processes and information from reputable sources on the World Wide Web.

Secondly, for the qualitative part of the study a participatory approach was followed. There are two traditional approaches to SIA, namely a technical approach and a participatory approach. A participatory approach uses the knowledge and experiences of individuals most affected by the proposed changes as the basis for projecting impacts. In this case the role of the scientist is facilitator of knowledge sharing, interpretation and reporting of impacts.

Data was collected using qualitative research methods such as personal and group interviews. Where applicable, secondary data from meeting minutes and other documentation were used.

Data was then analysed according to the theoretical model developed by Slootweg, Vanclay and Van Schooten and presented in the International Handbook of Social Impact Assessment (Vanclay & Becker, 2003). This model identifies pathways by which social impacts may result from proposed projects. The model differentiates between social change processes and social impacts, where the social change process is the pathway leading to the social impact. The model was adapted for the South African situation.

Study team and qualifications

<table>
<thead>
<tr>
<th>Team Member</th>
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<tbody>
<tr>
<td>Ilse Aucamp</td>
<td>BA (Social Work); MA (Environmental Management)</td>
</tr>
<tr>
<td>San-Marié Aucamp</td>
<td>MA (Research Psychology)</td>
</tr>
</tbody>
</table>

Assumptions, exclusions and limitations

The following assumptions and limitations were relevant:

1. Not every individual in the community could be interviewed, therefore only key people in the community were approached for discussion. Additional information was obtained using existing data, records of public meetings and via telephonic and personal interviews.
2. The social environment constantly changes and adapts to change, and external factors outside the scope of the project can offset social changes, for example changes in local political leadership. It is therefore difficult to predict all impacts to a high level of accuracy, although care has been taken to identify and address the most likely impacts in the most appropriate way for the current local context within the limitations.

3. Social impacts can be felt on an actual or perceptual level, and therefore it is not always straightforward to measure the impacts in a quantitative manner.

4. Social impacts commence when the project enters the public domain. Some of these impacts are thus already taking place, irrespective of whether the project continues or not. These impacts are difficult to mitigate and some would require immediate action to minimise the risk.

5. There are different groups with different interests in the community, and what one group may experience as a positive social impact, might be experienced as a negative impact by another group. This duality will be pointed out in the impact assessment phase of the report.

**Uncertainties and knowledge gaps**

The social environment constantly changes and adapts to change, and external factors outside the scope of the project can offset social changes, for example changes in local political leadership or economic changes such as a recession. It is therefore difficult to predict all impacts to a high level of accuracy, although care has been taken to identify and address the most likely impacts in the most appropriate way for the current local context within the limitations. Ex-ante information is lacking in the SIA field, and therefore it is difficult to compare predicted impacts with actual impacts in similar projects. In addition, there is a long period of time between the impact assessment and implementation of the project and anything can change during that time – people can move away from the area, stop farming, alternative methods of power generation can be implemented or power could be generated elsewhere.

**Outstanding issues**

The authors are not aware of any outstanding issues, but the SIA process should ideally be repeated every few years, and with every expansion, to accommodate fluidity of the social environment. The managing and monitoring of social impacts are more important than the prediction, and this is often lacking. A permanent social monitor should be appointed to ensure that the impacts are managed and monitored throughout the life of the project.
B. Description of baseline environment

Existing impact sources

- An increasing number of mining and quarrying activities in the area
- Kusile Operations (starting late 2014, ramping up over time to full production)
- Phola-Kusile Coal Conveyor (will be completed before the project start)

Synthesis of baseline / existing impacts

- Impacts of Kusile operations (as predicted in Kusile EIA)
- Increase in crime
- Decline in water quality
- Deterioration of roads
- Throughfare of people
- Increase in respiratory diseases
- Pressure on infrastructure
- Influx of people

C. Impact Assessment

Project impact sources

- In-migration
- Change in land use
- Economic activities
- Out-migration

Description of project impacts – Base case mine plan

There will not be a significant difference in impacts between the different mine plans as social impacts are not site specific. Five key stakeholder groups have been identified, namely the farming community, directly affected communities, businesses, service providers and stakeholders outside the direct area of influence. The impact assessment has been done per stakeholder group.

The impacts on the farming community have been group in three broad areas, as seen in the next paragraph.
1. Impacts on livelihoods – this include loss of land, water issues, dust, transport costs and loss of labour.

2. Impacts on safety – this include road safety and personal safety.

3. Impacts on quality of life – this includes impacts on the sense of place, dust, noise, vibrations and health.

The impacts on the surrounding communities have been grouped in five broad areas as mentioned in the paragraph below:

1. Economic impacts (positive) – this includes job creation, skills development and opportunities for small and medium sized enterprises.

2. Economic impacts (negative) – this include competition for jobs, possible community unrest related to labour issues and increase in transport costs.

3. Impacts related to an influx of people – this include impacts on physical and social infrastructure, health impacts, crime, safety and security, the integration of the workforce with existing communities and access to resources.

4. Impacts on quality of life – this include impacts of blasting, noise, dust, vibrations, sense of place, health impacts and movement patterns.

5. Impacts related to displacement – these impacts will be relevant if the Old New Largo Village should be relocated or if any residents feel that they can no longer live in the area due to the presence of the mine.

Impacts on businesses include transport costs, accessibility, traffic, loss of natural resources and loss of labour. The impacts on the service providers mainly relate to the provision of social and physical infrastructure. Loss of natural resources, pollution and transport cost will be the major impacts on stakeholders outside the direct area of influence.

In the different phases of the project, the following impacts can be anticipated:

**Construction Phase**

- Loss of quality of life
- Dust
- Noise
Ptersa Social Impact Assessment

• Blasting and vibrations
• Traffic
• Safety
• Increase in crime

Operational Phase
• Potential impacts on surface water
• Loss of arable land
• Long-term impact of mine on farming businesses
• Loss of quality of life
• Dust
• Noise
• Blasting and vibrations
• Traffic
• Safety
• Increase in crime
• Increase in transport costs
• Loss of labour for farmers
• Health impacts
• Increased pressure on physical and social infrastructure
• Job creation
• Skills development
• Opportunities for small and medium enterprises
• Change in sense of place
• In-migration of people
• Impacts relating to displacement
• Loss of natural resources for current and future generations

Decommission and Closure
• Increase in unemployment
• Change in economy of area
• Loss of livelihoods
**Alternative mine plan**

The impacts in all the project phases and on the different stakeholder groups are similar to those identified for the base mine plan. The differences are not significant and would relate to intensity, mainly regarding the road deviation options. The impact on the mine’s social license to operate due to the exclusion of the pan makes Mine Plan 7 the most preferred alternative mine plan.

**Synthesis and comparison of base case mine plan and alternative mine plan**

Social impacts, unlike most environmental impacts, are not site specific and occur in the communities surrounding the proposed mine. The changing of the mining plan will not significantly alter the potential social impacts that will result from mining, but it will impact on the mine’s social licence to operate. The most significant change will be the changes in the road options. Road Option 1B is the most preferred of all the options as it is entirely on Anglo Property, it is shorter and less private people are impacted on. Mine Plan 7 is the preferred alternative mine plan.

**Cumulative impacts**

Cumulative impacts can be summarized as:

- Increase in crime
- Decrease in water quality
- Increased nuisance – dust, noise, traffic
- Influx of people
- Potential increase in respiratory diseases
- Increased pressure on infrastructure
- Sense of place

**Impacts of No-Go / Alternative development**

It is acknowledged that mining have a number of severe negative impacts, especially on the host communities and the bio-physical environment. The other side of the coin is that South Africa’s economy relies heavily on the mining industry, there are high levels of poverty and unemployment and it is a developing country. Mining makes a positive economic contribution to the host communities, and if it is managed responsibly the benefits to communities are significant. The potential impact of the energy crisis on poverty and
employment rates needs to be considered. In the light of these social issues, the impact should the mine not continue will be bigger than the impact of the mine going ahead.

D. Mitigation, management and monitoring measures to be incorporated into the environmental management programme

The following general recommendations are made:

Construction phase

- Compile and implement a community relations strategy;
- Appoint a stakeholder relationship manager to assist with management of social impacts and dealing with community issues;
- Create a community liaison forum;
- Consult with the directly affected businesses and note special concerns;
- Install proper grievance and communication systems;
- Establish an environmental forum;
- Involve the community in the process as far as possible through the relevant forums – encourage co-operative decision-making and management and partnerships with local entrepreneurs;
- Start discussions with commercial role players;
- Make monitoring activities part of the Safety, Health and Environmental systems;
- Provide advanced communication (i.e. signage, advertisements in local papers) about changes to local access, potential road hazards and expected traffic volumes during construction;
- Engage with relevant roleplayers e.g. police and municipalities in pre-construction phase to lay the foundation of future working-relationships;
- Engage and form partnerships with NGO’s to assist with the management of social impacts in communities; and
- Compile a strategy to deal with labour issues such as recruitment, employment and procurement. This will need the buy-in of contractors and local communities.

Operational Phase
• Compile and implement a community relations strategy;
• Appoint a stakeholder relationship manager to assist with management of social impacts and dealing with community issues;
• Create a community liaison forum;
• Consult with the directly affected businesses and note special concerns;
• Install proper grievance and communication systems;
• Involve the community in the process as far as possible through the relevant forums – encourage co-operative decision-making and management and partnerships with local entrepreneurs;
• Make monitoring activities part of the Safety, Health and Environmental systems;
• Provide advanced communication (i.e. signage, advertisements in local papers) about changes to local access, potential road hazards and expected traffic volumes during construction;
• Engage with relevant roleplayers e.g. police and municipalities in pre-construction phase to lay the foundation of future working-relationships; and
• Engage and form partnerships with NGO’s to assist with the management of social impacts in communities.

Decommision and closure

• Compile and implement a community relations strategy;
• Appoint a stakeholder relationship manager to assist with management of social impacts and dealing with community issues;
• Consult with the directly affected businesses and note special concerns;
• Install proper grievance and communication systems;
• Make monitoring activities part of the Safety, Health and Environmental systems;
• Engage and form partnerships with NGO’s to assist with the management of social impacts in communities; and
• Conduct a new SIA at the time.

E. Conclusions and key findings
When considering the social impacts of the proposed New Largo Mine, the importance of the project on a national scale must be considered. Electricity supply is a critical issue in South Africa at the moment and the proposed project will add to the stability of the service. From a greater societal perspective the project will thus have a positive impact. It is worth noting concerns about the long term impact on food security due to cumulative loss of high potential agricultural land. The proposed project will take place in an area surrounded by industrial development, and many of the impacts are already taking place. Stakeholders are also familiar with potential impacts. A small number of stakeholders will bear the majority of impacts of a project that is in the interest of the country at large. These impacts can be mitigated and managed – long term management is crucial to enhance Anglo’s social licence to operate and to minimise impacts on affected parties. The largest number of impacts will result from a change in land use and an influx of people.

Many social impacts occur as a result of bad communication processes, and positive relationships can go a long way in dealing with issues. The ways in which issues are approached are a crucial aspect in the success with which it can be dealt with. The following general recommendations are made:

- Compile and implement a community relations strategy;
- Appoint a stakeholder relationship manager to assist with management of social impacts and dealing with community issues;
- Create a community liaison forum;
- Consult with the directly affected businesses and note special concerns;
- Install proper grievance and communication systems;
- Establish an environmental forum;
- Involve the community in the process as far as possible through the relevant forums – encourage co-operative decision-making and management and partnerships with local entrepreneurs;
- Start discussions with commercial role players;
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- Engage with relevant roleplayers e.g. police and municipalities in pre-construction phase to lay the foundation of future working-relationships;
• Engage and form partnerships with NGO’s to assist with the management of social impacts in communities; and
• Compile a strategy to deal with labour issues such as recruitment, employment and procurement. This will need the buy-in of contractors and local communities.

The main difference from a social perspective between Mine Plan 6 and Mine Plan 7 is the different road options. Therefore, Road Option 1B and Mine Plan 7 are the most preferred options.

F. Specialist recommendations

The need for the proposed project is undeniable in the current economic conditions. It is therefore recommended that the project proceed. Road Option 1B and Mine Plan 7 are seen as the preferred alternatives. The management of social impacts is a long-term process. It is recommended that the SIA should be updated throughout the life of the mine to accommodate the changing social environment and include new impacts that may occur.
Declaration of Independence

Ptersa Environmental Management Consultants declare that:

- All work undertaken relating to the proposed project were done as an independent consultant;

- They have the necessary required expertise to conduct social impact assessments, including the required knowledge and understanding of any guidelines or policies that are relevant to the proposed activity;

- They have undertaken all the work and associated studies in an objective manner, even if the findings of these studies were not favourable to the project proponent;

- They have no vested financial interest in the proposed project or the outcome thereof, apart from remuneration for the work undertaken under the auspices of the abovementioned regulations;

- They have no vested interest, including any conflicts of interest, in either the proposed project or the studies conducted in respect of the proposed project, other than complying with the required regulations;

- They have disclosed any material factors that may have the potential to influence the competent authority’s decision and/or objectivity in terms of any reports, plans or documents related to the proposed project as required by the regulations.
Record of Experience

This report was compiled by Ilse Aucamp and San-Marié Aucamp.

**Ilse Aucamp** has more than 10 years of experience in Social Impact Assessment. She holds a Masters degree in Environmental Management as well as a degree in Social Work and is frequently a guest lecturer in pre- as well as post-graduate programmes at various tertiary institutions. Her expertise includes social impact assessments, social management plans, social and labour plans, social auditing, training as well as public participation. She is the past international chairperson of the Social Impact Assessment section of the International Association of Impact Assessment (IAIA) as well as a past member of the National Executive Council of IAIA South Africa.

**San-Marié Aucamp** is a registered Research Psychologist with extensive experience in both the practical and theoretical aspects of social research. She has more than 10 years experience in social research and she occasionally presents guest lectures in social impact assessment. Her experience includes social impact assessments, social and labour plans, training, group facilitation as well as social research. She is a past council member of the Southern African Marketing Research Association (SAMRA).
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GLOSSARY OF TERMS

**Sense of place:** Defining oneself in terms of a given piece of land. It is the manner in which humans relate or feel about the environments in which they live.

**Social impact:** Something that is experienced or felt by humans. It can be positive or negative. Social impacts can be experienced in a physical or perceptual sense.

**Social change process:** A discreet, observable and describable process which changes the characteristics of a society, taking place regardless of the societal context (that is, independent of specific groups, religions etc.) These processes may, in certain circumstances and depending on the context, lead to the experience of social impacts.

**Social Impact Assessment:** The processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by these interventions. Its primary purpose is to bring about a more sustainable and equitable biophysical and human environment.

**Social license to operate:** The acceptance and belief by society, and specifically local communities, in the value creation of activities.
# LIST OF ABBREVIATIONS

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<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>CS</td>
<td>Community Survey</td>
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<tr>
<td>DoL</td>
<td>Department of Labour</td>
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<td>DTI</td>
<td>Department of Trade and Industry</td>
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<td>DM</td>
<td>District Municipality</td>
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<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<td>EMP</td>
<td>Environmental Management Plan</td>
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<td>ESOMAR</td>
<td>European Society for Opinion and Marketing Research</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>GGP</td>
<td>Gross Geographical Product</td>
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<tr>
<td>HDSA</td>
<td>Historically Disadvantaged South African</td>
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<tr>
<td>HIV/AIDS</td>
<td>Human immunodeficiency virus / Acquired immune deficiency syndrome</td>
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<tr>
<td>IDP</td>
<td>Integrated Development Plan</td>
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<tr>
<td>LM</td>
<td>Local Municipality</td>
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<tr>
<td>NEMA</td>
<td>National Environmental Management Act</td>
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<tr>
<td>NGO</td>
<td>Non-government Organisation</td>
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<td>SAMRA</td>
<td>Southern African Marketing Research Association</td>
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<td>SIA</td>
<td>Social Impact Assessment</td>
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<td>UNEP</td>
<td>United Nations Environmental Programme</td>
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1 Introduction

The purpose of this report is to provide baseline information regarding the social environment, to identify possible social risks/fatal flaws and social impacts that may come about as a result of the proposed development and to suggest ways in which these impacts can be mitigated. This will assist decision-makers on the project in making sound decisions by providing information on the potential or actual consequences of their actions. The process entailed the following:

- A baseline socio-economic description of the affected environment;
- Identification of potential social change processes that may occur as a result of the project;
- Identification of potential social impacts; and
- Identification of mitigation and management measures.

Disregarding social impacts can alter the cost-benefit equation of development and in some cases even undermine the overall viability of a project. A proper social impact assessment can have many benefits for a proposed development (UNEP, 2002) such as:

- Reduced impacts on communities of individuals,
- Enhanced benefits to those affected,
- Avoiding delays and obstruction – helps to gain development approval (social license),
- Lowered costs,
- Better community and stakeholder relations,
- Improved proposals.

Synergistics Environmental Services (Pty) Ltd was appointed to manage the environmental impact assessment (EIA) process and they appointed Ptersa Environmental Management Consultants to perform the social impact assessment for the proposed project.
2 Project overview

Anglo American is proposing to develop a new opencast coal mine, the New Largo colliery, to supply coal to Eskom’s Kusile Power Station in the Mpumalanga Province through its subsidiary Anglo American Inyosi Coal (AAIC), to meet the demand for coal at the Kusile Power Station that is currently under construction. During the first years of operation, Kusile will utilise coal supplied via the proposed Phola-Kusile Coal Conveyor from the Phola Coal Processing Plant as well as coal from other parties. Additional coal supplies will be required when the Kusile Power Station is at full production. The New Largo coal reserve is of a suitable quality to supply Kusile, which uses pulverised coal combustion technology, and the intention is to source the additional reserves from New Largo for supply to Kusile. The New Largo coal reserve can sustain a power station of this capacity for more than 40 years.

The New Largo coal reserve lies within the AAIC current prospecting right area / proposed mining right area and covers an area of 6 817 hectares. The majority of the coal reserve lies between the N4 highway in the north and the N12 highway in the south, with a small portion found to the south of the N12 highway. The intention is not to mine through the N12 highway but to leave a buffer zone for the highway and other linear infrastructure running parallel to the N12 such as the Transnet petroleum pipeline.

There are old underground coal mine workings situated in the centre of the coal reserve area, implying that the proposed New Largo operations will involve mining through previously undermined areas as well as virgin coal in areas unaffected by previous mining. The New Largo Colliery will be designed to process at least 12.7 million tonnes of raw coal per annum for supply to the Kusile Power Station.

Mining and key associated activities will include:

- Topsoil striping prior to mining;
- The opencast mine pit (Phase 1 and Phase 2 as described in the report);
- Drilling and blasting of overburden;
- Draglines for overburden removal and placement;
- Trucks and shovels for excavation, loading and haulage of coal from the mine pit;
- Crushing plants;
- Conveyor belts and tips;
- Coal stockpiles;
- Access roads and haul roads;
- Overburden stockpiles;
• Storm water and process water management systems with pollution control and balancing dams;
• Water treatment plant to treat water pumped from the old underground mine workings and contaminated water from the proposed new operations;
• Power lines and substations;
• Offices;
• Various Workshops;
• Change houses, canteens, and laundry services;
• Refuelling bays;
• Stores; and
• Explosive magazines, etc.

In addition to homesteads, other surface infrastructure located within the proposed mining footprint area includes the R545 provincial road, which links the N12 and N4 highways, an ESKOM 400kV transmission line, which runs from east to west across the resource area and numerous rural power lines covering the whole area. Relocating this surface infrastructure will be phased in with the mine plan over the life of the mine. Two alternatives for the relocation of the R545 provincial road is considered. After completion of the report, Mine Plan 7 was provided to the SIA consultants. From a social perspective, the impacts from Mine Plan 7 will not significantly differ from the impacts of Mine Plan 6. Where differences occurs, it will be indicated as such. The main difference in impact will be the alternative routes for the R545, and this will be discussed in detail in the analysis of alternatives.

Figure 1 shows the locality of the mining rights application area for their proposed New Largo mine as well as the two proposed options for the relocation of the R545 provincial road under Mine Plan 6. A 15km buffer zone have been drawn around the site and is seen as the direct area of influence.
3 Study approach

3.1 Information base

The information used in this study was based on the following:

1. A literature review (see list provided in the References);

2. Professional judgement based on experience gained with similar projects;

3. Focus group and individual meetings with affected parties.

3.2 Assumptions and limitations

The following assumptions and limitations were relevant:

1. Not every individual in the community could be interviewed, therefore only key people in the community were approached for discussion. Additional information was obtained using existing data, records of public meetings and via telephonic and personal interviews.
2. The social environment constantly changes and adapts to change, and external factors outside the scope of the project can offset social changes, for example changes in local political leadership. It is therefore difficult to predict all impacts to a high level of accuracy, although care has been taken to identify and address the most likely impacts in the most appropriate way for the current local context within the limitations.

3. Social impacts can be felt on an actual or perceptual level, and therefore it is not always straightforward to measure the impacts in a quantitative manner.

4. Social impacts commence when the project enters the public domain. Some of these impacts are thus already taking place, irrespective of whether the project continues or not. These impacts are difficult to mitigate and some would require immediate action to minimise the risk.

5. There are different groups with different interests in the community, and what one group may experience as a positive social impact, might be experienced as a negative impact by another group. This duality will be pointed out in the impact assessment phase of the report.

3.3 Methodology

Scientific social research methods were used for this assessment. In order to clarify the process to the reader, this section will start with a brief explanation of the processes that have been used in this study.

3.3.1 Defining of concepts

The theoretical model used for this impact assessment was developed by Slootweg, Vanclay and Van Schooten and presented in the International Handbook of Social Impact Assessment (Vanclay & Becker, 2003). This model identifies pathways by which social impacts may result from proposed projects. The model differentiates between social change processes and social impacts, where the social change process is the pathway leading to the social impact. Detail of how the model works is not relevant to this study, but it is important to understand the key concepts, which will be explained in the following paragraphs.

Social change processes are set in motion by project activities or policies. A social change process is a discreet, observable and describable process that changes the characteristics of a society, taking place regardless of the societal context (that is, independent of specific groups, religions etc.) These
processes may, in certain circumstances and depending on the context, lead to the experience of social impacts (Vanclay, 2003). If managed properly, however, these changes may not create impacts. Whether impacts are caused will depend on the characteristics and history of the host community, and the extent of mitigation measures that are put in place (Vanclay, 2003). Social change processes can be measured objectively, independent of the local context. Examples of social change processes are an increase in the population, relocation, or the presence of temporary workers. Social change processes relevant to the project will be discussed before the possible social impacts will be investigated.

For the purpose of this report, the following social change process categories were investigated:

- demographic processes;
- economic processes;
- geographic processes;
- institutional and legal processes;
- emancipatory and empowerment processes;
- sociocultural processes; and
- other relevant processes.

The International Association for Impact Assessment (2003) states that Social Impact Assessment includes the processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by these interventions. Its primary purpose is to bring about a more sustainable and equitable biophysical and human environment. The Interorganizational Committee on Principles and Guidelines for Social Impact Assessment (2003) defines Social Impact Assessment in terms of “efforts to assess, appraise or estimate, in advance, the social consequences that are likely to follow from proposed actions”.

A social impact is something that is experienced or felt by humans. It can be positive or negative. Social impacts can be experienced in a physical or perceptual sense. Therefore, two types of social impacts can be distinguished:

- **Objective** social impacts – i.e. impacts that can be quantified and verified by independent observers in the local context, such as changes in employment patterns, in standard of living or in health and safety.

- **Subjective** social impacts – i.e. impacts that occur “in the heads” or emotions of people, such
as negative public attitudes, psychological stress or reduced quality of life.

It is important to include subjective social impacts, as these can have far-reaching consequences in the form of opposition to, and social mobilisation against the project (Du Preez & Perold, 2005).

The following Social Impact Assessment categories were investigated for the purpose of this SIA:

- health and social well-being;
- quality of the living environment;
- economic impacts and material well-being;
- cultural impacts;
- family and community impacts;
- institutional, legal, political and equity impacts; and
- gender impacts.

Relevant criteria for selecting significant social impacts included the following:

- probability of the event occurring;
- number of people that will be affected;
- duration of the impact;
- value of the benefits or costs to the impacted group;
- extent to which identified social impacts are reversible or can be mitigated;
- likelihood that an identified impact will lead to secondary or cumulative impacts;
- relevance for present and future policy decisions;
- uncertainty over possible effects; and
- presence or absence of controversy over the issue.

The model was adapted to suit the South African context, and where processes and impacts were not relevant to the study, it was omitted. Each category has a number of sub-categories, which also have been investigated. In order to make the report easier to read, similar impacts were grouped together, even if they did fall under different categories. Therefore, a number of impacts from
different categories will be discussed under one heading. It is important to mention, however, that all categories were investigated and analysed prior to the writing of this report to ensure that the study is as thorough as possible. The Equator Principles, IFC Performance Standards, World Bank Environmental, Health and Safety guidelines and Anglo America’s Socio-Economic Assessment Toolkit (SEAT) were consulted in the writing of this report and the mitigation suggested adheres to these requirements.

3.3.2 Literature study

A detailed literature search was undertaken to obtain secondary data for the baseline description of the socio-economic environment. The information in this report was acquired via statistical data obtained from Statistics South Africa, SIA literature (see References), the public participation process as well as information from reputable sources on the World Wide Web.

3.3.3 Research approach

Traditionally there are two approaches to SIA, a technical approach and a participatory approach. A technical approach entails that a scientist remains a neutral observer of social phenomena. The role of the scientist is to identify indicators, obtain objective measures relevant to the situation and provide an expert assessment on how the system will change (Becker, Harris, Nielsen & McLaughlin, 2004). A participatory approach uses the knowledge and experiences of individuals most affected by the proposed changes as the basis for projecting impacts. In this case the role of the scientist is facilitator of knowledge sharing, interpretation and reporting of impacts (Becker et al, 2004). For the purpose of this study, a participatory approach was followed. The impact assessment was therefore conducted based on qualitative information and a participatory approach.

The findings presented in this report are based on primary as well as secondary (desk) research. A qualitative approach was followed for the primary research, while qualitative as well as quantitative data were used for the secondary research.

The layperson sometimes criticises qualitative research as “subjective” or “not really that scientific”. For this reason it is vital to understand the distinction between qualitative and quantitative research as well as their respective areas of application.

Qualitative research as a research strategy is usually characterised by the inference of general laws from particular instances, forms theory from various conceptual elements, and explains meaning (David & Sutton, 2004). It usually emphasise words rather than quantification in the collection and
analysis of data. Data collection takes place by using methods such as unstructured or semi-structured interviews, focus groups, observations, etc. Data is not recorded in any standardised coding format, but are usually reported according to themes. Qualitative data express information about feelings, values and attitudes. This approach is used where insight and understanding of a situation is required (Malhotra, 1996). Participants are selected based on their exposure to the experience or situation under review. The aim of qualitative research is to understand, not to quantify and as such is extremely suitable for assessing social impacts. A potential impact need to be understood before it can be assessed appropriately.

Quantitative research as a research strategy usually makes inferences of particular instances by reference to general laws and principles and tends to emphasize what is external to or independent of the mind (objective) and incorporates a natural science model of the research process (David & Sutton, 2004). This usually makes it easier for a person with a natural or physical sciences background to relate to. This approach usually emphasises quantification in the collection and analysis of data. Data collection take place by using methods such as structured questionnaires and data is recorded in a numeric or some other standardised coding format. Data is expressed in numerical format and statistical techniques are usually used to assist with data interpretation. This approach is used when information needs to be generalised to a specific population and participants are usually selected using probability sampling techniques (although non-probability methods can be used depending on the characteristics of the target population).

Although in theory the qualitative phase of this project could be followed by a quantitative phase, for a number of reasons it was not done. A quantitative phase would be more resource intensive in terms of labour, time and cost and the incremental precision obtained in terms of generalisability would not warrant the additional investment. Due to the strong emotional component relating to the perceived impacts, respondents may intentionally magnify the intensity of the impacts or indicate all impacts are equally severe in an attempt to bias the results in their favour, which will reduce the utility of quantitative results as part of the primary research process.

### 3.3.4 Primary data collection

Primary data was collected through personal interviews as well as through group interviews. The following groups were interviewed:

- Councillors from Emalahleni Local Municipality
- Farmers
Respondents for the interviews were selected by means of non-probability sampling techniques, more specifically a combination of judgemental and snowball sampling. The interviews took place individually or in a group. The mode of interviewing used depended on the availability and convenience of the particular respondent or group of respondents. An unstructured interviewing technique was used. This allowed for the respondent to communicate freely all information that he/she deemed relevant to the proposed development that may be missed in a more structured interviewing format. It also allowed for the interviewer to probe and to clarify issues.

The data gathered from the interviews were analysed and interpreted using qualitative techniques such as content analysis and triangulated with other data sources for assessment purposes.

3.3.5 Ethical issues

The fact that human beings are the objects of study in the social sciences brings unique ethical problems to the fore. Every individual have a right to privacy which is the individual’s right to decide when, where, to whom, and to what extent his or her attitudes, beliefs and behaviour will be revealed (Strydom, 2002). Every person interviewed for the purposes of this report has been ensured that although the information shared will be used, their names will not be disclosed without their permission. Therefore, to protect those consulted and to maintain confidentiality, the people interviewed for this report will not be named in the report. Records of the interviews have been kept. This is in line with international as well as national research practices such as the ESOMAR and SAMRA codes of conduct.
4 Baseline description of the social environment

According to the National Environmental Management Act (NEMA, 1998) environment refers to the surroundings in which humans exist. When viewing the environment from a social perspective the question can be asked what exactly the social environment is. Different definitions for social environment exist, but a clear and comprehensive definition that is widely accepted remains elusive. Barnett & Casper (2001) offers the following definition of human social environment:

“Human social environments encompass the immediate physical surroundings, social relationships, and cultural milieus within which defined groups of people function and interact. Components of the social environment include built infrastructure; industrial and occupational structure; labour markets; social and economic processes; wealth; social, human, and health services; power relations; government; race relations; social inequality; cultural practices; the arts; religious institutions and practices; and beliefs about place and community. The social environment subsumes many aspects of the physical environment, given that contemporary landscapes, water resources, and other natural resources have been at least partially configured by human social processes. Embedded within contemporary social environments are historical social and power relations that have become institutionalized over time. Social environments can be experienced at multiple scales, often simultaneously, including households, kin networks, neighbourhoods, towns and cities, and regions. Social environments are dynamic and change over time as the result of both internal and external forces. There are relationships of dependency among the social environments of different local areas, because these areas are connected through larger regional, national, and international social and economic processes and power relations.”

Environment-behaviour relationships are interrelationships (Bell, Fisher, Baum & Greene, 1996). The environment influences and constrains behaviour, but behaviour also leads to changes in the environment. Only by understanding people in the context of their environment can the impacts of a project on them truly be comprehended. The baseline description of the social environment will include the identification of relevant stakeholders; a description of the area within a provincial, district and local context that will focus on the identity and history of the area as well as a description of the population of the area based on a number of demographic, social and economic variables.

4.1 Description of the area

The proposed mine will be located in the Emalahleni and Delmas Local Municipalities, which forms part of the Nkangala District Municipality in Mpumalanga. The baseline description of the social
environment will include these areas. Figure 2 shows the location of the proposed projected within municipal boundaries.

Figure 2: Locality of the proposed New Largo Colliery and options for the R545 deviation, Mining Plan 6

4.1.1 The Mpumalanga Province

The Mpumalanga Province is located in the north eastern part of South Africa and covers an area of approximately 82 333 km² (www.mputopbusiness.co.za). It borders the Limpopo Province, Gauteng, the Free State, KwaZulu Natal and internationally Swaziland and Mozambique. The word Mpumalanga means “place where the sun rises”.

The province consists of three district municipalities, namely Gert Sibande, Nkangala and Ehlaza. Nelspruit is the provincial capital and other major towns include Barberton, Delmas, Ermelo, Hazyview, Komatipoort, Malelane, Mashishing (Lydenburg), Middelburg, Piet Retief, Sabie, Secunda, Standerton, Volksrust, White River as well as Emalahleni (Witbank) (www.mpumalanga.com).

Mpumalanga is South Africa’s major forestry production area and is also the world’s largest producer of electrolytic manganese metal. Six major industrial clusters have been identified in Mpumalanga.
(Mpumalanga PGDS) in which numerous investment opportunities exists, namely stainless steel; agri-processing; wood products; chemical industry and chemical products; agri-products and tourism.

Extensive mining is done in the province. Minerals found include: gold, platinum group metals, silica, chromite, vanadiferous magnetite, argentiferous zinc, antimony, cobalt, copper, iron, manganese, tin, coal, andalusite, chrysotile asbestos, kieselguhr, limestone, magnesite, talc and shale.

Mpumalanga also accounts for 83% of South Africa's coal production. Ninety percent of South Africa's coal consumption is used for electricity generation and the synthetic fuel industry. Coal power stations are situated close to the coal deposits.

The province mainly exports primary products from its mining and agricultural activities with little value addition. Mpumalanga will be able to increase its share of export contribution towards the provincial GDP by adding value to its export products through beneficiation (Mpumalanga Economic Profile).

The Nkangala District Municipality (NDM) is one of the three district municipalities in Mpumalanga. Local municipalities forming part of the Nkangala DM are Delmas, Dr JS Moroka, Emalahleni, Emakahzeni, Steve Tshwete, and Thembisile, as well as the Mdala District Management Area.

The district is approximately 17 000 km² and consists of about 165 towns and villages, with Emalahleni and Middelburg being the primary towns. The Nkangala DM has a population of approximately 1.1 million people, which constitutes almost a third of Mpumalanga’s population.

According to the municipality’s website, the Nkangala DM is at the economic hub of Mpumalanga and is rich in minerals and natural resources. The district’s economy is dominated by electricity, manufacturing and mining. Community services, trade, finance, transport, agriculture and construction (www.nkangaladm.org.za) are also important sectors. Nkangala’s Integrated Development Plan (IDP) states that the district has extensive mineral deposits, including chrome and coal.

Another important economic activity in Nkangala is agriculture. The southern regions of the municipality are suitable for crop farming, specifically for fresh produce such as maize and vegetables, while cattle and game farming occur in the northern regions.

In terms of the population profile of the Nkangala DM, the majority of its inhabitants are extremely
poor and do not have access to mainstream economic activities. The main poverty concentration is amongst the communities residing in Dr JS Moroka and Thembisile Local Municipalities. The most important employment centre for these communities is the City of Tshwane, reducing their reliance on NDM. Daily commuting by means of public transport is a necessity (Nkangala IDP 2008/2009).

**Emalahleni Local Municipality** (ELM) is one of the six local municipalities forming part of the Nkangala District Municipality and borders the Gauteng Province. The Emalahleni LM is situated strategically within provincial context and in relation to the national transport network. It is situated closely to the City of Johannesburg Metropolitan, City of Tshwane Metropolitan Municipality and the Ekurhuleni Metropolitan Municipality. It is connected to these areas by the N4 and N12 freeways as well as a railway network. The Maputo Corridor runs through the municipality. There are rich coal reserves in the area as well as a number of power stations such as Kendal, Matla, Duvha, Ga-Nala as well as the Kusile power station that is currently under construction.

The main urban centre is the town of Emalahleni with the other towns / activity nodes being Ogies, Phola, Ga-Nala, Thubelihle, Rietspruit, Van Dyksdrift and Wilge. The development patterns in the area are fragmented, not only because of previous policies of segregation by race, but also due to the fact that large areas are undermined or have mining rights which resulted in further physical separation of areas, as well as the presence of natural features like flood plains and marshlands (Emalahleni IDP, 2009/10).

The **Delmas Local Municipality** is situated on the Western Highveld in the Nkangala District Municipality and is strategically located close to the metropolitan areas of Ekurhuleni and Tshwane in Gauteng. The name of the municipality was changed to Victor Khanye and then again back to Delmas. Main towns and settlements in the area include Delmas, Eloff, Sundra, Botleng, Abor, Argent, Lionelton, Brakfontein, Dryden and Waaikraal (Delmas IDP). The area is characterised by an increase in the number of mining and related activities in the Leandra area (Nkangala IDP). In addition to mining (concentrating on coal and silica), other important sectors in the area are agriculture, finance and manufacturing. Agriculture is the main source of employment in the municipality (www.delmasmunic.co.za).

The settlement at **Wilge** was established in 1935 as part of the Wilge Power Station, that is currently out of commission, to house its employees (Itekeng Development Consulting, 2007). For a long period of time these houses were rented to Eskom employees, but a few years ago Eskom started selling these houses, giving preferences to the tenants. There are approximately 157 houses at Wilge. A household study that was conducted in 2007 (Itekeng Development Consulting) showed
that about a third of the residents were of school-going age. The most dominant home languages were isiZulu and Afrikaans. The majority of people surveyed were employed by Eskom or working at the surrounding mines at the time. Most people relied on services in Phola or Ogies, while some made use of services in Witbank.

**Kendal Forest Holdings** is a group of small holdings situated just outside Kendal. There is an estimated total of 70 households (Itekeng Development Consulting). According to a household study that was conducted by Itekeng Development Consultants (2007) about a third of the population were children below the age of 19 and dependent on their parents for financial support. There are also a few farm workers living on some of the small holdings. Afrikaans is the dominant home language. Many people are self employed or work for the surrounding mines. Some of the small holdings were used for residential as well as business purposes. A number of households have indicated that they are involved in subsistence farming which includes crop farming and livestock. The majority of residents make use of services in Ogies, while shopping is done in a variety of surrounding towns like Witbank, Delmas, Bronkhorstspruit and Ogies. The majority of young children attended the primary school at Balmoral.

### 4.2 Description of the population

The baseline description of the population will take place on three levels, namely provincial, district and local. Only by understanding the differences and similarities between the different levels can impacts truly be comprehended. The baseline description will focus on the communities of the Emalahleni and Delmas local municipalities within the context of the Nkangala District Municipality in the Mpumalanga Province (referred to in the text as the study area).

The data used for the socio-economic description was sourced from the Community Survey (CS) conducted by Statistics South Africa in 2007. The Community Survey is a large-scale household survey conducted by Statistics South Africa to bridge the gap between censuses. It served as a mini census and its purpose ([www.statssa.gov.za](http://www.statssa.gov.za)) is to collect information on the trends and level of demographic and socio-economic data; the extent of poor households; access to facilities and services; levels of employment/unemployment; in order to assist government and private sector in planning, evaluation and monitoring of programmes and policies.

Community Survey 2007 yields more up-to-date information than Census 2001 which used to be the most recent source of demographic and socio-economic data on national, district and municipal level.
It should however be noted that Community Survey 2007 is not a replacement of the Census (Statistics South Africa, 2007a) and that there are certain limitations inherent to the study that should be taken into consideration when interpreting the results (Statistics South Africa, 2007b):

- The scope of the study only included household and individuals. Institutions such as military bases, national parks, prisons, hotels, hospitals, military barracks, etc were excluded from the field work. The institutional population is an approximation based on 2001 figures and not new data.

- The measurement of unemployment is higher and less reliable due to the differences in questions asked relative to the normal Labour Force Surveys.

- The income includes unreasonably high income for children probably due to misinterpretation of the question, e.g. listing parent’s income for the child.

- The distribution of households by province has very little congruence with the General Household Survey or Census 2001. It is not yet clear whether these changes are real or whether they are due to variables that could be ascribed to the study.

- Since the Community Survey is based on a random sample and not a Census, any interpretation should be understood to have some random fluctuation in data, particularly concerning the small population for some cells. It should be understood that the figures are within a certain interval of confidence. This applies in particular to cross-tabulations on municipal level where small numbers are likely to give an under or overestimation of the true population (due to group not present in sample or number realised for sample very small). The aggregated total number per municipality however provides more reliable estimates (Statistics South Africa, 2007a).

- Further it should be noted that the estimates were done with the use of the de-facto population (the group of population who were enumerated according to where they stayed on a specific night) and not the de-jure population (the group of population who were enumerated according to where they usually live). These results are presented as the de-jure population.

Based on this the results should be viewed as indicative of the population characteristics in the area and should not be interpreted as absolute.
4.2.1 Population

According to the Community Survey 2007, the population of South Africa is approximately 48.5 million and has shown an increase of about 8.2% since 2001. The household density for the country is estimated on approximately 3.87 people per household, indicating an average household size of 3-4 people (leaning towards 4) for most households which are slightly down from the 2001 average household size of 4 people per household.

As shown in Table 1, the growth rate in Mpumalanga was very similar to the national average, but Nkangala DM and Emalahleni LM experienced growth rates well above the national average with the population in Emalahleni LM more than doubled since 2001. The Delmas LM has a much smaller population than the Emalahleni LM and showed a negative growth rate since 2001. Emalahleni LM has the largest household sizes of the areas under investigation and has also shown an increase in household sizes since 2001. The Delmas LM has the smallest average household size and showed a decrease of almost one person per household since 2001.

Table 1: Community Survey 2007 Population, growth and household estimates

<table>
<thead>
<tr>
<th></th>
<th>Approximate population size</th>
<th>Estimated growth since 2001</th>
<th>Average household size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mpumalanga</td>
<td>3,643,435</td>
<td>8.25%</td>
<td>3.87</td>
</tr>
<tr>
<td>Nkangala DM</td>
<td>1,226,500</td>
<td>20.38%</td>
<td>4.01</td>
</tr>
<tr>
<td>Emalahleni LM</td>
<td>435,217</td>
<td>57.45%</td>
<td>4.12</td>
</tr>
<tr>
<td>Delmas LM</td>
<td>50,455</td>
<td>-10.24%</td>
<td>3.33</td>
</tr>
</tbody>
</table>

The majority of residents in the Emalahleni LM as well as the Delmas LM belong to the Black population (Figure 3). The proportion of people belonging to the Black population group in both the Emalahleni LM and Delmas is lower than on district and provincial level, with a higher proportion of people belonging to the White population group. As such these two local municipalities can be expected to be culturally different from the district.
4.2.2 Age

Table 2 shows that the Emalahleni LM has the highest average age (27.68 years) of the areas under investigation. This can possibly be ascribed to the more urban nature of the Emalahleni LM and the extent of industrial activities in the area compared to the district. Although there are larger urban areas in the Mpumalanga province than Emalahleni, there are also a number of tribal areas in the province which tend to have large proportions of young people that will bring down the average age of the population in the province.
Table 2: Average age (source: CS 2007 data)

<table>
<thead>
<tr>
<th>Location</th>
<th>Approximate average age (in years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mpumalanga</td>
<td>25.98</td>
</tr>
<tr>
<td>Nkangala DM</td>
<td>27.05</td>
</tr>
<tr>
<td>Emalahleni LM</td>
<td>27.68</td>
</tr>
<tr>
<td>Delmas LM</td>
<td>26.93</td>
</tr>
</tbody>
</table>

A closer look at the age distribution (Figure 4) shows that the Emalahleni LM has a smaller proportion of children, youth and young adults (aged 24 years or younger) than the district or the province and proportionately more people aged between 25 – 49 years, which are of economically active aged. The profile of the Delmas LM looks very similar to the profiles on district and provincial level. On provincial and district level 50% or more of the population are younger than 25 years. The high proportion of children younger than 15 years places a burden on those who are economically active to take care of their needs. It also indicates high potential for future population growth as Census 2001 (Stages in the life cycle of South Africans, 2005) indicates that at the age of nineteen; about 30.5% of women have given birth to at least one child. The high proportion of children and youth further indicates that there will be a higher future demand for employment and potentially a much bigger need for infrastructure, should all these people choose to remain in the area and not to migrate to urban areas. It is likely that many of these people will immigrate to areas such as Emalahleni where there are more industrial activities and as such potentially more job opportunities.
4.2.3 Gender

The gender distribution is fairly equal (Figure 5), with a slight biased towards males in the Emalahleni LM as well as the Delmas LM, which can be ascribed to the industrial nature of the area.

4.2.4 Language

The language profiles for the areas are very different from one another (Figure 6). In 2001, the
dominant home language in the Emalahleni LM was isiZulu (42.4%), followed by Afrikaans (14.6%), Sepedi (12.5%) and isiNdebele (10%). In the Delmas LM the dominant home languages were isiNdebele (33.5%) and isiZulu (32.5%), followed by Afrikaans (10.7%). On a district level, isiNdebele (31.3%) was the most dominant home language, followed by isiZulu (22.8%) and Sepedi (15.8%).

Home language gives an indication of the cultural makeup of the area. Knowing the culture of the area, would help the outsider to connect easier with the local communities. Therefore it is suggested that communication with communities in the study area should mainly take place in isiZulu, Sepedi, Afrikaans and English to ensure the largest reach. Not doing so could create barriers for accessing these communities.

Figure 6: Language distribution (shown in percentage, source: Census 2001)

4.2.5 Education

Education deprivation is one of the domains of Multiple Deprivation that was used to calculate the Provincial Indices of Multiple Deprivation. There is a close link between educational attainment, the type of work an individual is engaged in and the associated earnings potential. The level of education achieved by an individual, determines current income and savings potential, as well as future opportunities for individuals and their dependants (Noble et al, 2006).

The Emalahleni LM has a higher proportion of people (23.7%) indicating that they have obtained Grade 12 or a higher qualification than on district or provincial level (Figure 7). Even so, this proportion is still relatively low and this is limiting the employment potential of the population of the
area. The Delmas LM has the lowest proportion of people (11.7%) indicating that they have obtained Grade 12 or a higher qualification. The high proportion of people who did not attend an educational institution has lead to a generation of illiterate young people with a future of unemployment. This also poses a significant problem within communities as dependency as well as criminal activities increases (Delmas IDP).

**Figure 7: Highest education level – people 20 years or older (shown in percentage, source: CS 2007)**

The Nkangala District Municipality’s IDP identified some challenges with regard to education in the district as decaying schools, lack of learner transport and lack of facilities, e.g. libraries, sport facilities and basic necessities such as ablution facilities. Other important social issues affecting the school attendance rate include drug abuse, teenage pregnancy and violence at schools (Nkangala IDP 2008/2009).

### 4.2.6 Income

On local, district and provincial level, 50% or more of the population between the ages of 15 and 65 years have indicated that they did not have any income (Figure 8) in 2007. The Emalahleni area is financially slightly better off than the district and the province, but the levels of poverty are still high. The distribution of income in the Delmas LM looks similar to that on provincial and district level.

**Figure 8: Individual Monthly Income distribution (shown in percentage, source: CS 2007)**
4.3 Industry

4.3.1 Employment, occupations and industry

Half of the people in the Emalahleni LM and almost half of the people in the Delmas LM who are of economically active age (aged between 15 and 65 years) have indicated that they are employed (Figure 9), compared to 42.1% in Nkangala and 40.1% in Mpumalanga, indicating the greater concentration of economic activities in the area.
Figure 9: Employment status distribution (shown in percentage, source: CS 2007)

Only 21.3% of the inhabitants of the Emalahleni LM and 17.3% of inhabitants in the Delmas LM have indicated that they wanted to work and had taken active steps around the time of the survey to find employment. The proportion for Emalahleni LM is very similar to the proportions on district and provincial level while the proportion for the Delmas LM is slightly lower. The Emalahleni LM has the smallest proportion of people who have described themselves as not economically active. People who are not economically active are people from economically active age who do not form part of the labour force such as housewives/homemakers, students and scholars, pensioners and retired people, and any others who do not seek to work during the period of reference (at the time of data collection). This group also include discouraged work seekers, who have either given up on finding a job, or who live too far or who do not have the means to travel around seeking a job.

In general the largest proportion of the employed people in the study area on district and provincial level (Figure 10) are working in elementary occupations such as domestic workers, street vendors, shoe cleaners, building caretakers, messengers, porters, garbage collectors, agricultural workers, mining and construction labourers, manufacturing labourers, transport labourers and freight handlers. In the Emalahleni LM, Craft and related trades workers is the biggest occupational category, followed by Elementary occupations. The category of Craft and related trades workers include extraction and building trades workers, metal, machinery and related trades workers, handicraft, printing and related trades workers and other craft and related trades workers such as food processing. It must be noted that there is a high proportion of occupations that are indicated as unspecified and not elsewhere classified, which may modify the profiles should they be classified.
Elementary occupations is the biggest employment category in the Delmas LM, followed by Plant and machine operators and assemblers and Craft and related trades workers,

*Figure 10: Occupation distribution of the employed (shown in percentage, source: CS 2007)*

The industry profiles for the different areas under investigation look different from one another (Figure 11). It must be noted that a large proportion is indicated as either unspecified or as other and not adequately defined. Sorting this issue out could lead to a change in the profiles. The main industry of employment in Mpumalanga is Manufacturing; Community, social and personal services and Wholesale and retail trade. The Community; social and personal services sector includes public administration and defence activities, education and health and social work. In the Emalahleni LM, the dominant industry of employment is Mining and quarrying, followed by Manufacturing. Manufacturing is the most dominant industry of employment in the Delmas LM, followed by Wholesale and retail trade.
4.4 Infrastructure

4.4.1 Services: Water, Sanitation, Electricity and Refuse Removal

Access to piped water, electricity and sanitation services relate to the domain of Living Environment Deprivation as identified by Noble et al (2006). On a provincial level, almost 70% of the households in Mpumalanga had access to piped water inside the dwelling or yard (Figure 12) in 2007, compared to 74% or more on district level and local level. Only about a third to just less than half of households have access to piped water inside their dwellings.
The absence of a flush toilet or a pit toilet with ventilation is one of the indicators of Living Environment deprivation (Noble et al, 2006). From this perspective, the Delmas LM is the least deprived area in terms of sanitation services with almost 70% of households having access to flush toilets or pit toilets with ventilation (Figure 13), followed by the Emalahleni LM with 57.8%.

In the Emalahleni LM only about 60% of the households in the study area use electricity as source for lighting (Figure 14), followed by candles and paraffin. This is much lower than on district or provincial level where more than 80% of households use electricity for lighting purposes. The profile
for the Delmas LM looks similar to the provincial and district profiles.

**Figure 14: Distribution of energy source for lighting (households, shown in percentage, source: CS 2007)**

The profiles for refuse removal on a provincial and district level are very similar (Figure 15). This figure is higher for the Emalahleni LM with more than half of the households having their refuse removed once a week. The Delmas LM has the highest proportion of households (75.9%) who have their refuse removed by a local authority or private at least once a week.
Almost half of the households on provincial and district level and about a third of households in the Emalahleni LM have reported that they have their own refuse dumps compared to just over 20% in the Delmas LM. Some of these households are likely to be situated on farms and in rural areas that are far away from infrastructure and municipal facilities.

Households with their own refuse dumps rely mostly on backyard dumping, burial and burning. These practices adversely impact on human health and the environment, specifically:

- air pollution from smoke;
- pollution of ground and surface water resources and home grown fruit and vegetables;
- people inhaling smoke from fires at risk of contracting disease (cancer, respiratory related illness); and
- fires can destroy property.

### 4.4.2 Tenure

The Emalahleni LM has the lowest proportion of who own their dwellings and have paid them off in full (Figure 16), compared to 49.2% in the Delmas LM, 58.5% on district level and 62.7% on provincial level. Almost a quarter of the households in Emalahleni LM as well as the Delmas LM have indicated that they occupy their dwellings rent-free, which is much higher than on district or provincial level.
4.4.3 Transport

In Mpumalanga almost 70% of people travel by foot as the mode of travel that they use when travelling to their place of work or school (Figure 17). The category “on foot” also includes people who work from home and live-in domestics, in other words people who do not use any transport to get to their place of work or school. This proportion is the lowest for the Emalahleni LM where only about 41.9% of people travel by foot to their place of work or school.
4.1 Crime

The crime statistics for the SAPS are not grouped according to district municipalities, but according to SAPS regions. For this reason, the statistics will be reviewed on national and provincial level as well as for the police stations in the surrounding areas, namely Vosman and Ogies.

Figure 18 gives a comparison of the distribution of crime by main category in the area with national and provincial profiles for the April 2009 to March 2010 reporting period. The highest frequency of crimes reported in South Africa, Mpumalanga and as well as the Police Precincts under discussion are contact crimes (crimes against the person). These include crimes such as murder, assault, robbery and sexual crimes.
Figure 18: Crime for the April 2010 – March 2011 reporting period by main crime categories (source: www.saps.gov.za)

Figure 19 shows the crimes in the areas under discussion in percentage. The crime patterns for Mpumalanga and Ogies look very similar to that of South Africa. In the Vosman Police Precinct there are proportionately more contact crimes and property-related crimes and proportionately less other serious crimes.
Contact crimes involve physical contact between the victims and perpetrators and as such are almost always violent in nature. For the victim, contact crime can lead to death, serious injury, psychological trauma and / or the loss of property which can especially for poorer victims have detrimental consequences. A number of contact crimes are crimes that are social or domestic in nature and usually take place between people who know each other such as friends, family and acquaintances. An analysis of dockets (SAPS, 2007) showed that in almost 90% of assault cases the people involved knew one another. In most instances the motivation for social crimes relate to a misunderstanding (SAPS, 2009), indicating that people in these communities do not have the necessary social skills to deal with these issues in another, less violent way. It also seems as if there is a close relationship between some contact crimes, particularly all categories of assault and factors and conditions like urbanisation, poverty and unemployment, vigilantism, previous offenders as well as alcohol and drugs. Urbanisation causes urban unemployment, a massive growth of informal settlements (especially in or adjacent to existing poor areas) and the disappearance of the rural subsistence economy and social support network. It also creates rising expectations and new needs (SAPS, 2007).
5 Stakeholder identification and analysis

Every individual potentially affected by this project is a stakeholder in the project. The definition of a stakeholder is:

Any individual, group, or institution who has a vested interest in the social, economic or bio-physical resources of the project area and/or who potentially will be affected by project activities and have something to gain or lose if conditions change or stay the same (Adapted from WWF, 2005).

Stakeholder analysis identifies all primary and secondary stakeholders who have a vested interest in the issues with which the project is concerned. The goal of stakeholder analysis is to develop a strategic view of the human and institutional landscape, and of the relationships between the different stakeholders and the issues they care about most.

The stakeholder analysis will help the project identify:

• The interests of all stakeholders who may affect or be affected by the project;
• Potential conflicts or risks that could jeopardise the initiative;
• Opportunities and relationships that can be built on during implementation;
• Groups that should be encouraged to participate in different stages of the project;
• Appropriate strategies and approaches for stakeholder engagement; and
• Ways to reduce negative impacts on vulnerable and disadvantaged groups (WWF, 2005).

The full participation of stakeholders in both project design and implementation of is a key to – but not a guarantee of – success. Stakeholder participation:

• Gives people some say over how the project may affect their lives;
• Is essential for sustainability;
• Generates a sense of ownership if initiated early in the development process;
• Provides opportunities for learning for both the project team and stakeholders themselves; and
• Builds capacity and enhances responsibility (WWF, 2005).

For the purpose of the stakeholder analysis, stakeholders have been clustered in groups. The EIA process requires a stakeholder consultation process, but it is important to consider that stakeholder consultation is a continual process and communication with the stakeholders will be required for the life of the project. This has been considered when the stakeholder analysis has been conducted, and
it can be foreseen that these stakeholders will be important role players to consider throughout. The figure below indicates the key stakeholders in the project. A more detailed description of each group follows in the paragraphs below.

Figure 20: Stakeholder groups

5.1 Farming community

The farming community can be divided into three groups, namely the farmers who own the land within the boundaries of the site or adjacent to the site, the farmers that rent the land from the owners (this is the land in the footprint of the mining area), and the farm workers who live on the affected farms.

Anglo has bought/is in the process of buying the farms that will be affected by the mining operation. Even though some of the properties will only be affected in the few decades this process has already started, which can be seen as a positive gesture from Anglo’s side, since it assist the farmers with long term planning. In some cases the land in question has been rented out, or is still rented out to farmers (in many instances the previous owners) for cultivation or grazing. Many of the rental contracts are valid for a number of years, or in some cases agreements have been made with the affected parties to give them preferential access to the land should they wish to rent it.

The farmers who will be affected most in the long run are the people who own land adjacent to the mining area. These farmers will not be bought out, but will have to live with the impacts of mining...
on their farming activities. These impacts will be experienced by the people who rent the land as well, but in that case it can be argued that these people chose to rent the land and could choose to rent land elsewhere should they not be willing to live with the impacts. In the case of neighbouring farms this choice is taken out of the equation.

Both farmers who own the land and those who rent the land have farm workers that work, and in some cases live, on their properties. Farm workers are seen as a vulnerable group and they will be exposed to impacts from a number of sources. Their resilience to deal with these impacts is most likely very low. It is important to consider that vulnerability is not a synonym for poverty (Moser, 1998). Although poor people are usually amongst the most vulnerable, not all vulnerable people are poor. Vulnerability, according to Chambers (1997), means exposure and defencelessness. He explains that it has two sides: the external side of exposure to shocks, stress and risk; and the internal side of defencelessness, which implies a lack of means to cope without damaging loss. Moser (1998) phrased this differently and states that vulnerability has two dimensions, namely sensitivity and resilience. Sensitivity refers to the extent of a system’s response to an external event, and resilience refers to the ease and speed of a system’s recovery from stress. From these two definitions it can be seen that vulnerability deals with sensitive groups, which have low defences, and are therefore susceptible to harm, and who are not able to recover from stresses easily or without external help.

5.2 Directly affected communities

There are four residential areas that will be directly affected by the mine namely Ogies, Phola, Wilge and Kendal Forest Holdings.

Ogies is a small town in the Mpumalanga coalfields. It has traditionally been a farming town, but with the development of mines in the area services related to the mining industry has been established in town. Ogies has developed in a linear pattern along two main roads, namely the P29/1 and adjacent railway line as well as the R545. The town still functions as a service centre to farmers, with a number of service industries and the co-operative focusing specifically on the agricultural sector (Emalahleni Municipality Housing Development Plan, 2008). Other commercial enterprises also expanded, and the addition of a new mine will further contribute to the development of this small town.

Phola is a small town adjacent to the N12 highway, close to Ogies. There are high levels of poverty and few opportunities for employment in Phola, and informal settlements have developed on the verges of town. In 2005 informal structures in and around Phola amount to about 2156 units located in five unique settlements. Oyko Vezi to the southeast is the largest with about 720 units, followed
by the adjacent Moller site (570), and Iraq (418) to the north. The Siyabonga (249) and Eziphokweni (199) settlements to the west are significantly smaller than the other three settlements (Emalahleni Municipality Housing Development Plan, 2008). The new mines in the area and the building of the Kusile power station had a significant social impact on the residents of Phola, mostly caused by an influx of jobseekers from outside the area. Social impacts caused by New Largo mine will have a cumulative effect on the residents of Phola. The current socio-economic situation in Phola must be considered in the mitigation and management of social impacts, as this context provides a fertile breeding ground for social unrest. Unless these impacts are managed in a transparent, participatory manner, Phola can potentially be a source of significant social and reputational risk.

Wilge Village used to house employees of Eskom that worked at the Wilge power station. It has been declared as a township and some of the houses have been sold to private owners. The remaining houses belong to Eskom. According to residents there are plans for building four storey flats in the village to house artisans who work at Kusile. Although this will be towards the end of the life of the mine, Wilge Village will be very close to the mining area with a 500m buffer zone between the mine and the village. Given the shortage of housing in the area it is likely that Wilge will expand in future. Residents report that it is a safe and tranquil area to live in. There are some households living in the remaining buildings at the Old New Largo Underground mine. No formal services are provided to these households, except water in Jojo tanks and temporary toilets that is provided by the municipality.

Kendal Forest Holdings is a community living on smallholdings on the southern end of the coal reserve. Most of the people work for Eskom or mines in the area – residents estimate that approximately 10% of residents are retired. People chose to live there because of the lifestyle and to supplement their income with small-scale farming. The area already experienced a significant influx of people, as well as other social impacts, due to the construction of Kusile power station. Many of the residents optimized on the development in the area by putting up accommodation facilities in their backyards. There is electricity but no formal sewage system. Impacts from New Largo mine will be cumulative to existing impacts.

5.3 Businesses

There are a number of businesses in the area, and for the purpose of the assessment they have been classified as mines, industrial businesses and other businesses.
The mines include big mines such as Zondagsfontein and Vlakfontein and smaller operations like sand mines or small coalmines. **Industrial businesses** include brick making, coal washing (such as Malachite mining) and the Kusile power station. **Other businesses** include shops, guesthouses, and tourism facilities. (Commercial farms such as the poultry farm and Truter Boerderye have been grouped with the farming community).

### 5.4 Service providers

There are three major service providers which will be affected by the project namely Eskom, the surrounding municipalities and the Mpumalanga Department of Public Works, Roads and Transport.

**Eskom** is one of the beneficiaries of the project and the New Largo mine will assist them to meet their commitments in terms of national electricity supply. There are also some Eskom-related infrastructure that will have to be moved.

The **surrounding municipalities** will absorb a number of the social impacts, especially impacts related to an influx of people, since they will be responsible to deliver services to the people residing within their municipal area.

The **Mpumalanga Department of Public Works, Roads and Transport** will be responsible for the management of the relocation of the R545, since it is a provincial road that falls under their jurisdiction.

### 5.5 Stakeholders outside the direct area of influence

There is a number of stakeholders that resides outside the direct area of influence, but who may be affected by the project. This group includes downstream water users and road users.

The **downstream water users** are people that use the water for livelihood purposes such as farmers, or conservation groups. The **road users** are people that use the road on a frequent basis as part of their daily or weekly movement patterns.

The following table summarise the main issues and potential social impact by stakeholder group.

<table>
<thead>
<tr>
<th>Stakeholder group</th>
<th>Issue, value or view</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmers</td>
<td>• Impact on arable land</td>
</tr>
<tr>
<td></td>
<td>• Impact on water – boreholes, springs, surface water, acid mine</td>
</tr>
</tbody>
</table>

New Largo Colliery and R545 Road Deviation, December 2011
| Stakeholders outside the direct area of influence | • Water pollution  
• Air pollution  
• Loss of natural resources  
• Transport costs |
| Directly affected communities | • Economic opportunities – jobs and small businesses  
• Impact on physical and social infrastructure  
• Impacts of blasting – noise, dust, vibration, cracking of houses  
• Health  
• Safety and security  
• Crime  
• Sense of place  
• Transport costs  
• Potential displacement (Old New Largo Village)  
• Influx of people  
• Competition for jobs  
• Integration of work force with existing communities  
• Communication channels  
• Anglo’s social licence to operate  
• Impact on movement patterns  
• Access to resources  
• Skills development and transfer |
| Businesses | • Transport costs  
• Accessibility  
• Water quality and quantity  
• Increase in traffic - road safety  
• Labour issues  
• Crime |
| Service providers | • Social and physical infrastructure  
• Economic impacts  
• Planning issues  
• Cumulative impacts |

- Drainage
- Communication channels
- Labour issues – losing farm workers to the mine
- Crime
- Personal safety
- Transport costs
- Property values
- Impacts of blasting – noise, dust, vibration, cracking of houses
- Additional traffic and road safety
- Health (human and animals)
- Sense of place
- Aspirations for the future

- Economic opportunities – jobs and small businesses
- Impact on physical and social infrastructure
- Impacts of blasting – noise, dust, vibration, cracking of houses
- Health
- Safety and security
- Crime
- Sense of place
- Transport costs
- Potential displacement (Old New Largo Village)
- Influx of people
- Competition for jobs
- Integration of work force with existing communities
- Communication channels
- Anglo’s social licence to operate
- Impact on movement patterns
- Access to resources
- Skills development and transfer

- Transport costs
- Accessibility
- Water quality and quantity
- Increase in traffic - road safety
- Labour issues
- Crime

- Social and physical infrastructure
- Economic impacts
- Planning issues
- Cumulative impacts

- Water pollution
- Air pollution
- Loss of natural resources
- Transport cost
6 Social Impact Assessment

“Almost all projects almost always cause almost all impacts. Therefore more important than predicting impacts is having on-going monitoring and adaptive management.” Frank Vanclay

Considering the statement above, it must be considered that some social impacts will not be discussed in detail and that the focus will be on the most severe impacts. The life of mine for New Largo is estimated at approximately 50 years, and the project will be executed in two phases – the first from 2012 until 2023, and the second from 2023 until 2063, after which rehabilitation will take place. There will be another construction phase before the second phase move into operation. The social environment will change significantly over such an extended period, and it is almost impossible to predict potential social impacts over this period to a high level of accuracy. The social environment is dynamic and adapts to change and it is highly likely that impacts predicted in this report might have change throughout the life of the mine. In a long-term project such as New Largo the focus should rather be on the active management of social impacts than on the prediction and once-off mitigation thereof. Successful mitigation and management of social impacts requires long term commitment and involvement, and should form part of the strategic planning and management of the mine until closure. Suggestions for the management of social impacts are included in the report. The implementation of the relevant management suggestions should start as soon as possible, since the social impacts of the project started when the project was announced. It must be re-iterated that the management of social impacts is more important than the predicting and listing of impacts. Another important consideration in this project is the social context in which it will be executed – due to the existing impacts from mines in the area cumulative impacts must be managed carefully. A number of impacts are generic, but some social impacts are specific to certain stakeholder groups.

An attempt was made to simplify the impact assessment and to focus on aspects that can aid the decision-making process. Figure 3 below represents a simplified representation of causal paths that can lead to social change, which in turn can cause social impacts. The aim of this figure is not to capture all the impacts related to the project, but to illustrate the use of causal paths to identify impacts.
Social impacts are the result of social change, and to fully understand the potential impacts it is important to know the impact pathways. For the purpose of this assessment social change processes that can potentially cause social impacts have been identified. A social change process is a discreet, observable and describable process that changes the characteristics of a society, taking place regardless of the societal context (that is, independent of specific groups, religions etc.). Social change processes can be measured objectively. The way in which social change processes is perceived, given meaning or valued, depend on the social context in which various societal groups act. Some groups in society are able to adapt quickly and exploit the opportunities of a new situation. Others (e.g. vulnerable groups) are less able to adapt and will bear most of the negative consequences of change. These social change processes may, in certain circumstances and depending on the context, lead to the experience of social impacts. Social impacts are therefore completely context-dependent (Vanclay, 2003). A number of social change processes relevant to the proposed New Largo Mine have been identified. Figure 22 below represents a summary of the social change processes and the impacts that may result from these changes in the different phases of the
Impact tables will be compiled for each impact. The tables will consider project specific impacts, mitigation measures and residual impacts (impact after mitigation). The potential for cumulative impacts will be discussed under the section for potential impacts. The impact tables have been designed taking the following criteria into consideration:

The significance (quantification) of potential environmental impacts identified during scoping and identified during the specialist investigations have been determined using a ranking scale, based on the following:

- **Occurrence**
  - Probability of occurrence (how likely is it that the impact may occur?), and
  - Duration of occurrence (how long may it last?)

- **Severity**
Each of these factors has been assessed for each potential impact using the following ranking scales:

<table>
<thead>
<tr>
<th>Probability</th>
<th>Duration</th>
<th>Scale</th>
<th>Magnitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 – Definite/don’t know</td>
<td>5 – Permanent</td>
<td>5 – International</td>
<td>10 - Very high/don’t know</td>
</tr>
<tr>
<td>4 – Highly probable</td>
<td>4 - Long-term (ceases with the operational life)</td>
<td>4 – National</td>
<td>8 – High</td>
</tr>
<tr>
<td>3 – Medium probability</td>
<td>3 - Medium-term (5-15 years)</td>
<td>3 – Regional</td>
<td>6 – Moderate</td>
</tr>
<tr>
<td>2 – Low probability</td>
<td>2 - Short-term (0-5 years)</td>
<td>2 – Local</td>
<td>4 – Low</td>
</tr>
<tr>
<td>1 – Improbable</td>
<td>1 – Immediate</td>
<td>1 – Site only</td>
<td>2 – Minor</td>
</tr>
<tr>
<td>0 – None</td>
<td></td>
<td>0 – None</td>
<td></td>
</tr>
</tbody>
</table>

The significance of each potential impact was assessed using the following formula:

$$\text{Significance Points (SP)} = (\text{Magnitude} + \text{Duration} + \text{Scale}) \times \text{Probability}$$

The maximum value is 100 Significance Points (SP). Potential social impacts were rated as high, moderate or low significance on the following basis:

- More than 60 significance points indicates high environmental significance.
- Between 30 and 60 significance points indicates moderate environmental significance.
- Less than 30 significance points indicates low environmental significance.

It must be stated that the impact tables and ratings have been adapted from the environmental sciences and that it is not always possible to compartmentalise the social impacts. For the sake of consistency this has been attempted, but it is not innate to social sciences. Allowance for the changing and adaptive nature of social impacts should be made when interpreting the impact tables. Another consideration is that the management and mitigation of some social impacts require input from a number of agencies, as these can only be addressed within the greater societal context. Proper mitigation and management would also take a number of years – this period would go far beyond the construction phase of the project. The focus of this report will therefore be on project-
specific mitigation. The social impact will be discussed, but in some instances it is not possible for the proponent to implement the mitigation without support from other role players. The recommendations at the end of the report will focus on the best way to manage social impacts in the context of this project.
Impacts identified, mitigation and social management plan

The following section of the report focuses on the identification of social impacts, mitigation and management measures. The impact assessment has been conducted per stakeholder group. Although some impacts may be experienced by more than one stakeholder group, there are differences in the way the group experience the impact, and the management of certain impacts may require different approaches according to the needs of each stakeholder group.

6.1 Farming community

6.1.1 Statement of situation

The area around the mine has traditionally been a farming area. Some of the farms have been in the same family for generations. Over the last few decades mining activities in the area have escalated. Farmers report an increase in crime, especially theft, in the last ten years. Smaller livestock, farm implements and maize are examples of popular pickings. Most farmers farm with crops or cattle. Anglo started the process of buying out the farms in the footprint of the mining area, even though the plans to mine on the area may still be a number of years away. In some instances the farms are rented back to their previous owners. There are farm workers residing on some of the affected farms. A detailed census of farm workers has not been done. In some cases farm workers do not live on the farms, but are transported from nearby residential areas to work on a daily basis. Farmers report that they already experience some impacts from the other mines and industries in the area. These impacts include a decline in water quality, deterioration of roads, dust and thoroughfare of people. The quality of the bio-physical environment plays an important role in the sustainability of livelihoods of the farming community. In this context many bio-physical impacts have social dimensions. The bio-physical impacts mentioned in this section are discussed from a social perspective, and the mitigation proposed is meant to be additional and complementary to the mitigation in the relevant specialist studies.

6.1.2 Potential impacts

Mining can potentially cause a myriad of impacts. Some of the impacts may cause a nuisance, but people will be able to live with it. Other impacts may affect a person’s livelihood, and these are the most serious social impacts. From this perspective one of the most important impacts is the impact on water – springs, rivers and boreholes. Farmers are dependent on water for their cattle and crops. Impacts on surface water are already reported and the farmers have a perception that these impacts
may increase with the presence of a new mine. Although the water impacts are assessed in a separate study, the fear and uncertainty that are related to these impacts and the potential impact on the livelihoods of the farmers qualify as social impacts.

The loss of arable land is a source of concern for the farmers. They claim that the land cannot be used for crop cultivation after rehabilitation, but only for grazing. The crop farmers are of the opinion that there is a scarcity of land in the immediate area, so even if Anglo bought the farms, they may not be able to stay in the same area. Farmers that own more than one piece of land is less willing to relocate, as a distance between their properties makes it more expensive to run their business. In the short and medium term they rent the farms back from Anglo, but in the long term they would need to find other alternatives.

Farmers that own neighbouring properties are concerned about the long term impact of the mine on their businesses. They feel that they will carry the brunt of the impacts, but will not be compensated for these impacts. They live on farms for a reason – for some farming is a way of life and they are of the opinion that the presence of a mine in close proximity to their houses will change the sense of place in the area. Their dreams of leaving a legacy for their children to build on have been destroyed by the proposed mine.

Another bio-physical impact that already occurs and has a social dimension is the impact of dust. According to the farmers dust have an impact on the quality and growth of their crops. Grazing covered with dust is less palatable to livestock. There is also a significant nuisance factor associated with dust – people cannot keep their houses clean or hang their washing outside, and there is a perception that it may intensify existing allergies. Noise from construction and operation activities is another source of nuisance for the farming community. Blasting is closely associated with the dust and the noise, with added impacts of vibrations and cracking of houses and other infrastructures such as dams. Boreholes are also sensitive to vibrations.

Safety on the farms is an existing issue. More people moving through the area will enhance prospects for opportunistic criminals. There is also a risk that informal settlements can form or illegal occupants can move into the farm worker community. One farmer reported that his farm workers already put up backyard shacks and rent it out as accommodation for people working in the surrounding areas. In some cases people have tenure rights and live on the farm, but they work for the mines. This is a source of concern for the farmers since it has security implications. The risk of veld fires originating from a human source increase with more people moving though the area. Another safety aspect is the increase of heavy vehicles travelling on the roads. Farmers and farm workers
workers travel on the roads – farm workers often use public transport or travel on foot. Farm implements and cattle are also moved across the roads from time to time.

The demolition and replacement of a section of the R545 will increase the transport cost of some of the farmers, since it will mean that they need to travel a longer distance to deliver their goods. This impact will be much smaller if mining plan 7 is chosen.

Farmers reported that they have lost labour to the mines in the past. If this means that the beneficiaries are better off in the long term, it is just the way things work in a democracy. If the jobs are temporary construction jobs, it can have a long term negative impact on the farm workers and their extended families, because it will lead to unemployment in the long run. Farmers often invest in skills for their workers such as driver’s licences, and workers with some level of skill are most likely to find new employment.

Impacts on the health of farmers, farm workers and livestock come from a number of sources. There may be an increase in infectious diseases such as HIV/AIDS or tuberculosis especially in the farm worker community due to an influx of people that may be carriers of these diseases and come and live in their community. There may also be an increase in chronic diseases such as asthma, bronchitis or sinusitis due to the cumulative impacts of dust and other air pollutants. Physical injuries can potentially result from road accidents, industrial accidents or violence in the community related to activities from the mine – for example alcohol-induced fights between farm workers and construction workers. The last potential health outcome can be an impact on the mental health of the farmers or farm workers. Continual fighting about resources, uncertainty and a feeling of powerlessness that individuals experience when dealing with a big corporate firm are all aspects that may cause stress, anxiety, depression and in extreme cases suicide.

Farmers are keen to establish a relationship with the mine in the interest of good neighbourly relations. The farming community pulls together in times of need like fire or floods. They would like to have a clear and direct communication channel to the mine – they want to interact with a person, and not with a system. They need to know who to phone when there are incidents like trespassing, fires or broken fences. Since contractors usually work in areas on a short term basis they do not see the benefits of having a good relationship with the neighbouring farmers and the perception is that they frequently conduct themselves in an inappropriate manner, therefore the farmers want a direct channel to the mine to discuss any issues that may arise. The farmers want to know what is going on in terms of water quality and air pollution, or when blasting will take place. Farmers feel that unless
there is such a communication channel it will be very frustrating to deal with the mine and the interests of the farmers will not be protected.

For the purpose of simplifying the impact tables the impacts have been grouped in three groups namely:

1. Impacts on livelihoods – this include loss of land, water issues, dust, transport costs and loss of labour.

2. Impacts on safety – this include road safety and personal safety.

3. Impacts on quality of life – this includes impacts on the sense of place, dust, noise, vibrations and health.

A mitigation and management plan will be suggested in the next section. The mitigation of social impacts often involves a number of role-players, and is usually not a once-off occurrence. Since some social change like an influx of people cannot be controlled or managed by the mine, it is difficult to mitigate the impacts resulting from such a change.
### 6.1.3 Impact assessment

<table>
<thead>
<tr>
<th>Impact</th>
<th>Nature</th>
<th>Phase</th>
<th>Magnitude</th>
<th>Duration</th>
<th>Scale</th>
<th>Probability</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impacts on livelihoods</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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### Mitigation and management plan

<table>
<thead>
<tr>
<th>Action</th>
<th>Broad Key Performance Indicator (KPI)</th>
<th>Responsibility</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish an environmental forum to discuss water and other environmental issues and involve farmers in environmental monitoring process.</td>
<td>Establishment of forum Minutes of quarterly meetings</td>
<td>New Largo Mine</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>Give previous owner of land first choice to rent. After that give preference to local farmers that will be impacted on by the mine.</td>
<td>Lease agreements</td>
<td>Anglo Property Manager</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>Put dust buckets on all neighbouring properties and monitor on a monthly basis. Give farmers access to results at environmental forum meetings.</td>
<td>Dust monitoring report</td>
<td>New Largo Mine</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>Blast at designated times every day. Distribute blasting schedule to neighbouring properties.</td>
<td>Blasting schedule and distribution list</td>
<td>New Largo Mine</td>
<td>Construction Operation</td>
</tr>
<tr>
<td>Conduct an asset and infrastructure baseline study of all neighbouring properties before mining commences. This must include GPS points of infrastructure like boreholes, and photographic evidence of all infrastructure. A copy of the study should be kept by the mine and another copy by the farmer.</td>
<td>Asset and infrastructure baseline report One copy with farmer, one copy with mine</td>
<td>New Largo Mine</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>Compile an access protocol that employees and contractors must follow before they access property that does not belong to the mine. The protocol should include the wearing of a</td>
<td>Access protocol with distribution list All farmers have copies of the access protocol</td>
<td>New Largo Mine Contractors</td>
<td>Pre-construction</td>
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<tr>
<td>Action</td>
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<td>Responsibility</td>
<td>Timeframe</td>
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<td>-------------------------------------------------------------------------------------------------</td>
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<tr>
<td>photo-identification card and marked vehicles. As a matter of courtesy this should be extended</td>
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<tr>
<td>to people who rent the properties. The protocol must be distributed to the farmers, as well</td>
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<tr>
<td>as the recourse that they have if the protocol was not followed.</td>
<td></td>
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</tr>
<tr>
<td>Develop detailed traffic control plans with input from the traffic police to minimise road and</td>
<td>Completed traffic control plans</td>
<td>New Largo Mine</td>
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<tr>
<td>traffic disruptions.</td>
<td>Communicated key aspects of the plans to the key stakeholders</td>
<td>Traffic Police</td>
<td></td>
</tr>
<tr>
<td>Provide advanced communication (i.e. signage, advertisements in local papers) about changes</td>
<td>Design of appropriate signage and communication material</td>
<td>New Largo Mine</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>to local access, potential road hazards and expected traffic volumes during construction</td>
<td></td>
<td>Contractor</td>
<td></td>
</tr>
<tr>
<td>Encourage workforce to live in established residential areas. Provide transport from these</td>
<td>Signed transport agreements</td>
<td>New Largo Mine</td>
<td>Construction</td>
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<tr>
<td>areas to the mine.</td>
<td></td>
<td></td>
<td>Operation</td>
</tr>
<tr>
<td>Develop a recruitment policy that allows equal opportunity to all people (woman, disabled) and</td>
<td>Approved recruitment policy</td>
<td>New Largo Mine</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>give preference to local labour. Refrain from employing farm workers for short term positions.</td>
<td></td>
<td>Contractor</td>
<td></td>
</tr>
<tr>
<td>Develop and implement a Workforce Code of Conduct to maximise positive employee behaviour in the</td>
<td>Approved Workforce Code of Conduct</td>
<td>New Largo Mine</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>local community, and optimise integration.</td>
<td>Direct involvement of farming community in developing Code of</td>
<td>Contractor</td>
<td></td>
</tr>
</tbody>
</table>

New Largo Colliery and R545 Road Deviation, December 2011
<table>
<thead>
<tr>
<th>Action</th>
<th>Broad Key Performance Indicator (KPI)</th>
<th>Responsibility</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design and implement a Drug and Alcohol Management Policy, and undertake regular testing on site, to minimise negative interactions with the local community.</td>
<td>Conduct Drug and Alcohol Management Policy/procedure, applicable to all employees and contractors, Drug and alcohol tests conducted on site at stipulated intervals</td>
<td>New Largo Mine Contractor</td>
<td>Pre-construction Construction Operation Decommission</td>
</tr>
<tr>
<td>Establish a detailed grievance mechanism for farming community to lodge concerns, suggestions and complaints which can be dealt with by the Project in a timely manner.</td>
<td>Completed community grievance mechanism, Mechanism communicated to local residents through a variety of media</td>
<td>New Largo Mine Contractor</td>
<td>Pre-construction Construction Operation Decommission</td>
</tr>
<tr>
<td>Appoint a community liaison officer that deals specifically with the farming community. Compile a community relations plan.</td>
<td>Appointment letter of community liaison officer, Completed community relations plan</td>
<td>New Largo Mine</td>
<td>Pre-construction Construction Operation Decommission</td>
</tr>
<tr>
<td>Form a partnership with an Non-government Organisation such as Future Families <a href="http://www.futurefamilies.co.za">www.futurefamilies.co.za</a> to provide the necessary social services to people whose lives are affected by infectious diseases.</td>
<td>Written partnership agreement in place</td>
<td>New Largo Mine</td>
<td>Pre-construction Construction Operation Decommission</td>
</tr>
</tbody>
</table>
6.2 Directly affected communities

6.2.1 Statement of situation

There are four residential areas that will be directly affected by the mine namely Ogies, Phola, Wilge and Kendal Forest Holdings. Ogies is the furthest away, but a number of businesses have established itself in Ogies. There is a number of mines in the area, and the economic injection resulting from these mines have benefitted local businesses in Ogies. Phola is the residential area that is mostly affected by the influx of people working on the Kusile Power Station and the other mines in the area. Informal settlements have mushroomed on the outskirts of Phola, and the current infrastructure is not adequate. There are high levels of unemployment in Phola, and labour issues appear to be rife. Violent protests related to labour issues erupted at the Kusile Power Station earlier this year, and the Phola community relays the protests back to employment and recruitment practices. Wilge Village used to be the residential area for employees of Eskom that worked at the Wilge Power Station. Although Eskom still owns some houses, Wilge Village has been declared a township and the majority of houses are privately owned. It is a quiet area and residents report that they feel very safe and do not experience crime-related problems. According to the residents there are plans to develop the area further and to build additional flats for the use of Eskom employees. Wilge will be very close to the mining area and businesses in Wilge may lose some business due to the demolishing of the R545, as it will no longer run past the settlement. It will also have implications for the movement patterns of local people. There are about 30 houses in the Old New Largo Village that is still occupied. It is not clear whether this is legal or illegal occupation, but the municipality is aware of the people that live there. The houses do not have running water or a water-based sewage system, but the municipality provides water and temporary toilets to the residents. These houses fall directly in the mining area of the project and the residents should thus be relocated. Given the fact that this area will only be mined from 2040 onwards there is enough time for this relocation. Kendal Forest Holdings is a group of smallholdings on the southern end of the reserve. It is reported to be a close-knit community. Most people living in Kendal Forest Holdings are employed by industries in the area and they enjoy the rural lifestyle. The area is close to Kusile Power Station and therefore already experience impacts related to an influx of people. They also report some impacts related to other mining activities in the area.
6.2.2 Potential impacts

A new mine will boost the economy of the area. The area already benefits from the construction activities of Kusile Power Station and the opening of mines. Small businesses and entrepreneurs leaped at opportunities, and if the economic benefits are channelled appropriately the area will continue to benefit for the life of the New Largo Mine. In a country with high levels of unemployment the creation of jobs is critical for the social and economic development of the area. It is important to consider that job creation is not only a positive impact, but that there is also a negative dimension to this impact. Apart from the obvious economic benefits, there is another social dynamic that must be considered in the South African context. People are desperate and competition for jobs has become a battle of survival. For example, Transnet advertised 30 positions in a depot near Bloemfontein and 10 000 people showed up, causing a stampede that injured 69 people (http://www.news24.com/SouthAfrica/News/Unruly-job-seekers-caused-stampede-20111007). Local people are sensitive about the employment of people from outside the area, and it is not unusual for competition for jobs to turn into violent conflict, whether it takes the shape of conflict between community members, or protests against the mine. The reality is that it is often not possible to employ a large number of local people due to the shortage of skills. Recruitment
practices are an area that can potentially cause a number of impacts in the communities and for the proponent, and should be managed carefully.

Skills development is closely related to job creation. There is an existing social and labour plan that addresses the skills development plan for the New Largo Mine but a detailed plan can only be provided once the mine is approved and more specific planning has been done. Anglo has other mines in the area (Zibulo (formerly Zondagsfontein)) being the closest. Communities is of the opinion that local people who were employed in the construction phase of this mine should be given the first opportunity to apply for jobs at New Largo, since they are currently unemployed. They feel that skills development should include the opportunity to gain job experience. The perception is that Anglo does not invest in the local community with bursaries, learnerships and internships. This perception is probably based on a lack of information regarding Anglo’s investments within the community. Communities feel that Anglo should start training the youth as soon as possible to ensure that they are qualified by the time the mine enters its operation phase. There are high levels of expectations within communities regarding the role that they think Anglo should play in the creation of local opportunities. These expectations are not always realistic and should be managed actively. Because of the high and often unrealistic expectations, Anglo fails in the eyes of the communities, and this affects Anglo’s social licence to operate. The community in Phola is especially negative about the mine and felt that it should not be approved. They claimed to have negative experiences with Anglo when the EIA for the Zibulo Mine was conducted – they raised their concerns and felt that nothing happened and that the same concerns are still valid. Communities wants “someone to cry to”, a community liaison officer that can be their contact person and serve as a communication channel.

All the communities have been affected by an influx of people to a greater or lesser extent, and a new mine in the area will cause a new wave of people entering the communities. The communities that have been affected most up to date are Phola and Kendal Forest Holdings. The residents of Phola report that people from Delmas and Bronkhorstspruit rent places in Phola to be closer to work at Kusile Power Station. They claim that Phola was excluded from the recruitment process for Kusile Power Station because it falls in a different municipality, and therefore they are sensitive about the manner in which things will be approached by the New Largo Mine. They feel that they have already been victims of a project where they had to pay a significant price, but did not receive any benefits. There has been an increase in the number of shacks in and around Phola and the local services such as sanitation, sewage and waste removal is not coping with the current number of residents of the area. Additional people also place more pressure on social services such as health, welfare services.
and education. Residents claim that many men, especially people from outside the area and foreigners (mostly people from other African countries such as Mozambique and Zimbabwe), start families to ensure that they have a place to stay – one of the local woman verbalised it as: “I am his washing machine”. Women use prostitution as a livelihood strategy because the presence of migrant workers created a viable market for their services. The local conditions create a favourable spreading ground for infectious diseases such as HIV/AIDS and tuberculosis. Phola is most likely to experience the biggest influx of job-seekers and it is likely that the informal settlements around Phola will expand as news about the new mine spread.

The residents of Kendal Forest Holdings experienced the influx of people in a different manner. Many of the residents identified business opportunities related to the presence of a consumer market. People created residential facilities such as houses, flats and even containers to provide for the need for accommodation in the area. Other people started ventures such as transport or cleaning businesses. Kendal Forest Holdings do not have municipal services such as potable water or sewage systems. Most of the smallholdings have French drains and boreholes. Residents are especially concerned about the impact of the increase in and/or overuse of facilities such as French drains on the ground water quality. Access to clean water from boreholes is important for the residents since they do not have alternative sources of water. A further concern is the potential impact of the mining operations on the water quality. Another impact of the influx of people is the increase in traffic and the number of pedestrians moving through the area. Residents reported that their fences are cut, people trespass on their property and gates are left open – this is often the result of people trying to take short-cuts to the main road. There has also been an increase in theft.

All the communities are concerned about the impact of blasting on their properties. There are already mines and other industries in the area and blasting is a common occurrence. Residents report windows being broken, cracks in houses and even ceilings falling down. They claim that the mines abuse the fact that there are so many activities in the area, and they shift blame from one operation to the other, and the end result is often that people do not get anywhere with their complaints, because no one takes responsibility for the damage. Additional impacts resulting from blasting are excessive dust and noise. Impacts from blasting at New Largo Mine will be cumulative to existing impacts.

Impacts on the health of community members come from a number of sources. There may be an increase in infectious diseases such as HIV/AIDS or tuberculosis due to an influx of people that may be carriers of these diseases and come and live in the communities. Infectious diseases also spread
easier in densely populated areas, and in areas where there is a lack of sanitation services people with compromised immune systems are more vulnerable to diseases. There may also be an increase in chronic diseases such as asthma, bronchitis or sinusitis due to the cumulative impacts of dust and other air pollutants. Residents report a high incidence of these diseases already. Physical injuries can potentially result from road accidents, industrial accidents or violence in the community related to activities from the mine – for example alcohol-induced fights between community members and construction workers or protest actions that turn violent. The last potential health outcome can be an impact on the mental health of community members. Continual fighting about resources, uncertainty and a feeling of powerlessness that individuals experience when dealing with a big corporate firm are all aspects that may cause stress, anxiety, depression and in extreme cases suicide.

More people moving through the area will enhance prospects for opportunistic criminals. Wilge Village and Kendal Forest Holdings reported that crime is currently not a big issue in their communities, but there has been an increase in theft since the construction of Kusile started. Crime is a bigger issue in Phola, and this can probably be ascribed to the fact that it is more accessible and there is a bigger move-through of people. Another safety aspect is the increase of heavy vehicles travelling on the roads. Community members travel on the roads to their places of work and buses transport children to school. The Phola community mostly use public transport and the majority travel on foot.

The residents of Kendal Forest Holdings are especially concerned about the closing and demolishing of the R545. Most of their children go to the primary school in Balmoral, and using an alternative route will increase the travel distance and the time they spend on the road every day. This will have safety and cost implications. There will no longer be a road through Wilge and the movement patterns of the local residents will have to change. People who depend on public transport will need to pay higher fees to get to places like Pretoria and Bronkhorstspruit.

Residents of Wilge Village and Kendal Forest Holdings are concerned about the impact that the mine will have on the sense of place. These are quiet rural areas and people choose to live there because of the lifestyle that living in a small rural community offers them. Having a mine in close proximity will change the feel of the area. The residents of Wilge are especially concerned about the fact that there will only be a 500m buffer zone between their village and the mine. Although the mining of that section of the reserve is still a number of years away (from 2040 onwards) residents fear for the future impacts on their community. They feel that the values of their properties will drop and they
will struggle to sell should they want to. They are also concerned about the impact on the local school – there are two schools in the area that is reported to be in the process of amalgamating and moving into Wilge Village. Another concern is the residents of the Old New Largo Village that is situated in the footprint of the mine. These residents will have to be relocated in the long term. They receive municipal services from Emalahleni Municipality and it could not be established if they are on the municipal housing list. The land where they live on belongs to Anglo. They have been reported to have lived in the area for a long time and some of them used to be farm workers. The Extension of Security of Tenure Act (ESTA – 1997) gives people tenure rights if they have lived on a certain piece of land for longer than ten years. The legal status of these residents and the responsible party must be determined as soon as possible to avoid later disputes and minimise risks. Relocation is a time-consuming process and should be initiated well in advance of the land being required. Should Anglo be the responsible party, they would need to compile a relocation action plan and follow a separate process outside the EIA process to ensure the best practice international principles are applied. This impact will not be discussed in detail, but should be revisited and considered as part of the strategic planning of the New Largo Mine.

For the purpose of the impact tables impacts have been grouped in five groups namely:

1. Economic impacts (positive) – this includes job creation, skills development and opportunities for small and medium sized enterprises.

2. Economic impacts (negative) – this include competition for jobs, possible community unrest related to labour issues and increase in transport costs.

3. Impacts related to an influx of people – this include impacts on physical and social infrastructure, health impacts, crime, safety and security, the integration of the workforce with existing communities and access to resources.

4. Impacts on quality of life – this include impacts of blasting, noise, dust, vibrations, sense of place, health impacts and movement patterns.

5. Impacts related to displacement – these impacts will be relevant if the Old New Largo Village should be relocated or if any residents feel that they can no longer live in the area due to the presence of the mine.
### 6.2.3 Impact assessment

#### Economic impacts (positive)

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<tr>
<th>Nature</th>
<th>Phase</th>
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<th>Duration</th>
<th>Scale</th>
<th>Probability</th>
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<td>Pre-construction</td>
<td>10</td>
<td>4</td>
<td>3</td>
<td>5</td>
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#### Economic impacts (negative)

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<th>Significance</th>
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<td>Decommission</td>
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<td><strong>After Mitigation</strong></td>
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<th>Duration</th>
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<th>Probability</th>
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<td>Impacts related to an influx of people</td>
<td>Before Mitigation</td>
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<th>Duration</th>
<th>Scale</th>
<th>Probability</th>
<th>Significance</th>
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<tr>
<td>Impacts on quality of life</td>
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<th>Duration</th>
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<td>Impacts related to displacement</td>
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### 6.2.4 Mitigation and management plan

<table>
<thead>
<tr>
<th>Action</th>
<th>Broad Key Performance Indicator (KPI)</th>
<th>Responsibility</th>
<th>Timeframe</th>
</tr>
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<tbody>
<tr>
<td>Compile a Local Industry Participation Plan (LIPP) for the Project</td>
<td>Approved LIPP</td>
<td>New Largo Mine Contractor</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>Communicate supply chain opportunities through the Project’s website</td>
<td>Create website</td>
<td>New Largo Mine Contractor</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>and communications materials</td>
<td>Distribute communication materials in local communities who do not have access to the internet.</td>
<td></td>
<td>Construction</td>
</tr>
<tr>
<td>Engage with and become a member of the local Chambers of Commerce/Business forums</td>
<td>Membership of chamber of commerce</td>
<td>New Largo Mine</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>Engage with the Department of Trade and Industry (DTI) and Department of Labour (DoL) to facilitate training on tender requirements (e.g. insurances, quality, documentation)</td>
<td>Conducted tender training sessions with local and regional businesses</td>
<td>New Largo Mine Contractor</td>
<td>Pre-Construction</td>
</tr>
<tr>
<td></td>
<td>Provision of detailed information on tender requirements</td>
<td>DTI</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>DoL</td>
<td></td>
</tr>
<tr>
<td>Engage with DTI/DoL to provide general business management seminars (e.g. business start up, financial planning, resource management, etc)</td>
<td>Conducted business management sessions with local and regional businesses</td>
<td>New Largo Mine Contractor</td>
<td>Pre-construction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DTI</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>DoL</td>
<td></td>
</tr>
<tr>
<td>Provide business mentorship to identified local businesses</td>
<td>Project management staff have made</td>
<td>New Largo Mine</td>
<td>Construction</td>
</tr>
</tbody>
</table>

New Largo Colliery and R545 Road Deviation, December 2011
<table>
<thead>
<tr>
<th>Action</th>
<th>Broad Key Performance Indicator (KPI)</th>
<th>Responsibility</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>through forums run by the Chambers of Commerce/Business forums</td>
<td>allocated time available to assist in mentoring local businesses on tender requirements and quality standards</td>
<td>Contractor</td>
<td>Operation</td>
</tr>
<tr>
<td>Where practical, investigate opportunities for integration of Project apprentices into local businesses to facilitate skills transfer to the local community.</td>
<td>Suitable local businesses and Project apprentices are identified and matched Relevant agreements signed</td>
<td>New Largo Mine Contractor</td>
<td>Construction Operation</td>
</tr>
<tr>
<td>Develop a recruitment policy that allows equal opportunity to all people (woman, disabled) and give preference to local labour. Communicate the policy and requirements to the affected communities through the media, community leadership and a community liaison forum. Establish labour desks in Phola and Ogies.</td>
<td>Approved recruitment policy Communication plan related to recruitment policy Establishment of labour desks</td>
<td>New Largo Mine Contractor</td>
<td>Pre-Construction Construction Operation Decommission</td>
</tr>
<tr>
<td>Appoint a community liaison officer that deals specifically with the surrounding communities. Compile a community relations plan. Establish a community liaison forum that meets every three months – at this forum the mine can give feedback on its activities and keep the communities informed about matters that concern them. It can be a useful mechanism to manage expectations and build relationships.</td>
<td>Appointment letter of community liaison officer Completed community relations plan Established community liaison forum</td>
<td>New Largo Mine</td>
<td>Pre-construction Construction Operation Decommission</td>
</tr>
<tr>
<td>Develop and implement a Workforce Code of Conduct to</td>
<td>Approved Workforce Code of Conduct</td>
<td>New Largo Mine</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>Action</td>
<td>Broad Key Performance Indicator (KPI)</td>
<td>Responsibility</td>
<td>Timeframe</td>
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</tr>
<tr>
<td>maximise positive employee behaviour in the local community, and optimise integration.</td>
<td>Direct involvement of community in developing Code of Conduct</td>
<td>Contractor</td>
<td></td>
</tr>
<tr>
<td>Design and implement a Drug and Alcohol Management Policy, and undertake regular testing on site, to minimise negative interactions with the local community.</td>
<td>Approved Drug and Alcohol Management Policy/procedure, applicable to all employees and contractors Drug and alcohol tests conducted on site at stipulated intervals</td>
<td>New Largo Mine Contractor</td>
<td>Pre-construction Construction Operation Decommission</td>
</tr>
<tr>
<td>Establish a detailed grievance mechanism for communities to lodge concerns, suggestions and complaints which can be dealt with by the Project in a timely manner.</td>
<td>Completed community grievance mechanism Mechanism communicated to local residents through a variety of media</td>
<td>New Largo Mine Contractor</td>
<td>Pre-construction Construction Operation Decommission</td>
</tr>
<tr>
<td>Form a partnership with a Non-government Organisation such as Future Families (<a href="http://www.futurefamilies.co.za">www.futurefamilies.co.za</a>) to provide the necessary social services to people whose lives are affected by infectious diseases.</td>
<td>Written partnership agreement in place</td>
<td>New Largo Mine</td>
<td>Pre-construction Construction Operation Decommission</td>
</tr>
<tr>
<td>Implement a Health and Safety Program on site, including safety consciousness and awareness training. The program should also include relevant health aspects, e.g. sexual health, fatigue management, social health.</td>
<td>Provision of safety training on site to all workers</td>
<td>New Largo Mine Contractor</td>
<td>Pre-construction Construction Operation Decommission</td>
</tr>
<tr>
<td>Action</td>
<td>Broad Key Performance Indicator (KPI)</td>
<td>Responsibility</td>
<td>Timeframe</td>
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</tr>
<tr>
<td>Provide a site-based paramedic to undertake necessary medical checks and procedures (to minimise impacts on local GPs and health centres).</td>
<td>Provide medical capacity on site</td>
<td>New Largo Mine Contractor</td>
<td>Pre-construction Construction Operation</td>
</tr>
<tr>
<td>Develop an Employee Assistance Program (EAP) to assist employees in dealing with personal issues and minimise impact on family assistance services locally.</td>
<td>Approved EAP provided to employees and their immediate family members</td>
<td>New Largo Mine Contractor</td>
<td>Pre-construction Construction Operation</td>
</tr>
</tbody>
</table>
| Provide regular information updates to the Police ‘Officer in Charge’ at Ogies and Vosman Police Stations. Invite local Police to attend relevant induction sessions – provide information on relevant safety and security issues, as well as relevant behaviour protocols, to the workforce. | Established key contact at Ogies and Vosman Police Stations  
Provision of regular written Project updates at agreed intervals  
Police attendance at induction sessions | New Largo Mine Contractor  
Ogies Police  
Vosman Police | Pre-construction Construction Operation Decommission |
| Implement workforce education programs on cultural diversity and tolerance. | Developed and presented information materials on cultural diversity to the workforce | New Largo Mine Contractor | Construction Operation |
| Undertake emergency response planning with input from municipal health and emergency services and local police. | Coordinated and approved emergency response plan for the Project | New Largo Mine Contractor  
Local Municipalities  
Local Police | Pre-construction |
<p>| Engage with local schools to provide ad-hoc curriculum assistance with specific subjects (e.g. geology) | Attendance and assistance of Project personnel at relevant lessons | New Largo Mine Contractor | Construction Operation |</p>
<table>
<thead>
<tr>
<th>Action</th>
<th>Broad Key Performance Indicator (KPI)</th>
<th>Responsibility</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Put dust buckets in all neighbouring communities and monitor on a monthly basis. Give communities access to results at community liaison forum meetings.</td>
<td>Dust monitoring report</td>
<td>New Largo Mine</td>
<td>Pre-construction, Construction, Operation, Decommission</td>
</tr>
<tr>
<td>Blast at designated times every day. Distribute blasting schedule to neighbouring communities.</td>
<td>Blasting schedule and distribution list</td>
<td>New Largo Mine</td>
<td>Construction, Operation</td>
</tr>
<tr>
<td>Conduct an asset and infrastructure baseline study of all properties in Wilge and Kendal Forest Holdings and the properties in Phola that is closest to the mining area. This study can be phased to coincide with the development of the mine. This must include GPS points of infrastructure like boreholes, and photographic evidence of all infrastructure. A copy of the study should be kept by the mine and another copy by the community member.</td>
<td>Asset and infrastructure baseline report One copy with community member, one copy with mine</td>
<td>New Largo Mine</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>Develop detailed traffic control plans with input from the traffic police to minimise road and traffic disruptions.</td>
<td>Completed traffic control plans Communicated key aspects of the plans to the key stakeholders</td>
<td>New Largo Mine</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>Provide advanced communication (i.e. signage, advertisements in local papers) about changes to local access, potential road</td>
<td>Design of appropriate signage and communication material</td>
<td>New Largo Mine</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>Action</td>
<td>Broad Key Performance Indicator (KPI)</td>
<td>Responsibility</td>
<td>Timeframe</td>
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<tr>
<td>hazards and expected traffic volumes during construction</td>
<td></td>
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<tr>
<td>Encourage workforce to live in established residential areas.</td>
<td>Signed transport agreements</td>
<td>New Largo Mine</td>
<td>Construction</td>
</tr>
<tr>
<td>Provide transport from these areas to the mine.</td>
<td></td>
<td></td>
<td>Operation</td>
</tr>
<tr>
<td>Contribute to the transport costs of children that need to go to school in Balmoral. This can be via monthly contributions to fuel costs, contribution to reparation costs or donation of new vehicle. It can be included as part of the Social and Labour Plan.</td>
<td>Records of contribution</td>
<td>New Largo Mine</td>
<td>Construction (as soon as R545 is demolished)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Operation</td>
</tr>
<tr>
<td>Establish the legally responsible party for the relocation of the households at the Old New Largo Village.</td>
<td>Written confirmation of legal status of residents</td>
<td>Anglo Emalahleni Municipality</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>Engage affected landholders to facilitate suitable relocation arrangements in line with the preferences of the landholder. Compile a relocation action plan.</td>
<td>Mutually acceptable relocation agreements Relocation Action Plan done according to international best practice standards in place</td>
<td>Depending on the legal status: Anglo Emalahleni Municipality</td>
<td>Pre-construction</td>
</tr>
</tbody>
</table>
6.3 Businesses

6.3.1 Statement of situation

There are a number of businesses that will be directly affected by the mine. The purpose of this assessment is not to investigate the economic impacts on the business, as this will be assessed in an economic impact assessment. The impacts on the businesses will be investigated from the perspective of the impact that the proposed New Largo Mine and demolishing of the R545 will have on their run-of-the-mill business activities. There are a number of mines in the area, ranging from small-scale mines to big mines. These mines are mainly collieries but there is also a sand quarry close by. There are some industries nearby like coal-washing plants, brick makers and Kusile Power Station. There are a number of small businesses like shops, guesthouses and tourism facilities. Some of the businesses use the R545 as access road or depend on traffic from the R545 to support their businesses.

Figure 24: Map indicating some of the mines and businesses in the area
6.3.2 Potential impacts

Many of the businesses transport relatively large freights on a frequent basis. Depending on the alternative chosen for the replacement of the R545 it may have an impact on the transport costs of the companies which in turn will impact on their operational costs.

Accessibility is an important issue. Malachite mining will have to relocate their entrance when the R545 is demolished. This may impact on their clients and their ability to distribute their finished products. Smaller businesses such as guesthouses and shops depend on through-traffic for a portion of their businesses, and they will lose this section of their market.

Increase in traffic will impact on road conditions and the safety of road users – all this can lead to financial loss and physical injury. The increase in traffic will peak in the construction phase since the product of the mine will not be transported on public roads. The work force of the mine will contribute to an increase in peak time traffic during the operational phase of the mine.

There is a possibility that businesses can lose labour to the New Largo Mine. More people in the area can lead to an increase in crime.

Some of the businesses depend on the quality of natural resources such as water for their business activities. A decrease in the water quality will have a negative impact on their product.
### 6.3.3 Impact assessment

<table>
<thead>
<tr>
<th>Impact</th>
<th>Nature</th>
<th>Phase</th>
<th>Magnitude</th>
<th>Duration</th>
<th>Scale</th>
<th>Probability</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transport costs and accessibility</strong></td>
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<td>Before Mitigation</td>
<td>Negative</td>
<td>Construction</td>
<td>10</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>80</td>
</tr>
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<td></td>
<td></td>
<td>Operation</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>After Mitigation</td>
<td>Negative</td>
<td>Construction</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Operation</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Quality of the natural environment</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Before Mitigation</td>
<td>Negative</td>
<td>Construction</td>
<td>8</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Operation</td>
<td></td>
<td></td>
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<tr>
<td>After Mitigation</td>
<td>Negative</td>
<td>Construction</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Operation</td>
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<tr>
<td><strong>Increase in traffic</strong></td>
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</tr>
<tr>
<td>Before Mitigation</td>
<td>Negative</td>
<td>Construction</td>
<td>10</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Operation</td>
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</tr>
<tr>
<td>After Mitigation</td>
<td>Negative</td>
<td>Construction</td>
<td>8</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>56</td>
</tr>
<tr>
<td>Impact</td>
<td>Labour issues and crime</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Nature</td>
<td>Phase</td>
<td>Magnitude</td>
<td>Duration</td>
<td>Scale</td>
<td>Probability</td>
<td>Significance</td>
</tr>
<tr>
<td>Before Mitigation</td>
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<td>2</td>
<td>5</td>
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<tr>
<td>After Mitigation</td>
<td>Negative</td>
<td>Construction Operation</td>
<td>8</td>
<td>3</td>
<td>2</td>
<td>4</td>
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</tbody>
</table>

### 6.3.4 Mitigation and management plan

<table>
<thead>
<tr>
<th>Action</th>
<th>Broad Key Performance Indicator (KPI)</th>
<th>Responsibility</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engage with businesses that use the R545 as access and major transport route to facilitate solutions to the benefit of both parties.</td>
<td>Agreements about the solutions in place</td>
<td>New Largo Mine</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>Liaise with businesses on an individual basis about environmental issues. Appoint liaison person who can serve as a contact and provide relevant information.</td>
<td>Minutes of meetings with businesses Business liaison person appointed</td>
<td>New Largo Mine</td>
<td>Pre-construction Construction Operation Decommission</td>
</tr>
<tr>
<td>Liaise with roads department about road maintenance. Contribute to road maintenance on a local level by filling potholes as an act of goodwill on an ad-hoc basis, especially during the construction phase and before the completion of</td>
<td>Agreements with Mpumalanga Department of Public Works, Roads and Transport in place</td>
<td>New Largo Mine</td>
<td>Pre-construction Construction Operation Decommission</td>
</tr>
<tr>
<td>Action</td>
<td>Broad Key Performance Indicator (KPI)</td>
<td>Responsibility</td>
<td>Timeframe</td>
</tr>
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<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>the new R545.</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
| Establish a detailed grievance mechanism for businesses to lodge concerns, suggestions and complaints which can be dealt with by the Project in a timely manner. | Completed business grievance mechanism  
Mechanism formally communicated to businesses | New Largo Mine Contractor | Pre-construction Construction  
Operation  
Decommission |
| Develop detailed traffic control plans with input from the traffic police to minimise road and traffic disruptions. | Completed traffic control plans  
Communicated key aspects of the plans to the key stakeholders | New Largo Mine Traffic Police | Pre-construction |
| Provide advanced communication (i.e. signage, advertisements in local papers) about changes to local access, potential road hazards and expected traffic volumes during construction | Design of appropriate signage and communication material | New Largo Mine Contractor | Pre-construction |
6.4 Service providers

6.4.1 Statement of situation

There are three major service providers which will be affected by the project namely Eskom, the surrounding municipalities (Delmas and Emalahleni Local Municipalities) and the Mpumalanga Department of Public Works, Roads and Transport. Eskom is one of the main beneficiaries of the project, and as national electricity provider it is their responsibility to see that there is sufficient energy to provide for the needs of all South Africans. Given the electricity crisis in South Africa and the fact that Kusile is part of the short-term solution, the supply of enough coal to Kusile will be in the interest of the South African economy. The surrounding municipalities must deliver services to all the people in their municipal jurisdiction. Both municipalities have housing backlogs and problems with the increase of informal settlements. This is due to the influx of people looking for jobs in the mining or construction industries, and to the fact that there is a trend for farm workers to migrate away from farms. There is therefore already pressure on both municipalities to provide sufficient physical and social infrastructure. The Mpumalanga Department of Public Works, Roads and Transport is the custodian of most roads in the area. Due to the industrial activities in the area the roads have deteriorated and the maintenance of the roads needs serious attention.

6.4.2 Potential impacts

The most important economic impact is that of a consistent supply of energy. By enabling Eskom to supply electricity, severe negative economic impacts, which would in turn cause social impacts, can be avoided.

The potential pressure on social and physical infrastructure due to additional demand caused by an influx of people can lead to quality of life and health impacts in communities. Most of these impacts will be cumulative to existing impacts. Strategic planning that includes all the role players will assist greatly in the mitigation of these impacts.
6.4.3 Impact assessment

<table>
<thead>
<tr>
<th>Impact</th>
<th>Nature</th>
<th>Phase</th>
<th>Magnitude</th>
<th>Duration</th>
<th>Scale</th>
<th>Probability</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Mitigation</td>
<td>Positive</td>
<td>Operation</td>
<td>10</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>90</td>
</tr>
<tr>
<td>After Mitigation (none required)</td>
<td>Positive</td>
<td>Operation</td>
<td>10</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>90</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Impact</th>
<th>Nature</th>
<th>Phase</th>
<th>Magnitude</th>
<th>Duration</th>
<th>Scale</th>
<th>Probability</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Mitigation</td>
<td>Negative</td>
<td>Pre-construction</td>
<td>10</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>80</td>
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<td></td>
<td></td>
<td>Construction</td>
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</tr>
<tr>
<td>After Mitigation</td>
<td>Negative</td>
<td>Pre-construction</td>
<td>8</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>56</td>
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<td></td>
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<td>Construction</td>
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</table>
### 6.4.4 Mitigation and management plan

<table>
<thead>
<tr>
<th>Action</th>
<th>Broad Key Performance Indicator (KPI)</th>
<th>Responsibility</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engage with the municipalities to discuss strategic long-term planning. Coordinate the outcomes of the Social and Labour plan with the Integrated Development Plans of the municipalities. Become a member of the IDP Forum.</td>
<td>Minutes of meetings, Social and Labour Plan, Membership of IDP Forum</td>
<td>New Largo Mine Municipalities</td>
<td>Pre-construction</td>
</tr>
</tbody>
</table>
6.5  Stakeholders outside the direct area of influence

6.5.1  Statement of situation

There is a number of stakeholders that resides outside the direct area of influence, but who may be affected by the project. There are farms and conservation areas downstream that rely on the quality of the natural environment for their livelihoods. There are conservation groups that act in the interest of the protection of the environment such as the Bronkhorstspruit and Wilge River Conservancy and the Federation for a Sustainable Environment. There are also people who use the R545 frequently as part of their daily or weekly movement patterns.

6.5.2  Potential impacts

The most important impacts on the downstream water users will result from water or air pollution. These impacts are assessed in separate specialist studies and are therefore only mentioned in the SIA because of the social impacts that can result from these bio-physical impacts. Should such pollution take place, it can influence the livelihoods of the affected persons.

Conservation groups play an important role in civil society. They create awareness of environmental issues and put pressure on the government and industry to act in a sustainable manner. They are therefore the advocates for the protection of the environment for future generations. From their perspective the impact will be on the loss of natural resources for current and future generations. Although it is important to mention this impact, it will not be assessed in the impact tables, as there are too many complex issues that fall outside the scope of the project to consider.

The frequent road users will be affected by the demolishment of the R545 as it will cause a change in their movement patterns and lead to an increase in their transport costs and the time that they spend on the road.
### 6.5.3 Impact assessment

#### Impacts on livelihoods

<table>
<thead>
<tr>
<th>Nature</th>
<th>Phase</th>
<th>Magnitude</th>
<th>Duration</th>
<th>Scale</th>
<th>Probability</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Mitigation</td>
<td>Negative</td>
<td>Construction Operation</td>
<td>8</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
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<td>4</td>
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</table>

#### Impacts on road users

<table>
<thead>
<tr>
<th>Nature</th>
<th>Phase</th>
<th>Magnitude</th>
<th>Duration</th>
<th>Scale</th>
<th>Probability</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Mitigation</td>
<td>Negative</td>
<td>Construction Operation</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>After Mitigation</td>
<td>Negative</td>
<td>Construction Operation</td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
### Mitigation and management plan

<table>
<thead>
<tr>
<th>Action</th>
<th>Broad Key Performance Indicator (KPI)</th>
<th>Responsibility</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publish bi-annual reports in the popular media about the state of the environment affected by the New Largo Mine and the nature of mitigation measures to protect the physical environment.</td>
<td>Copies of reports</td>
<td>New Largo Mine</td>
<td>Operation</td>
</tr>
<tr>
<td>Engage with conservation groups on a yearly basis to give feedback and build relationships.</td>
<td>Minutes of meetings</td>
<td>New Largo Mine</td>
<td>Construction</td>
</tr>
<tr>
<td>Provide advanced communication (i.e. signage, advertisements in local papers) about changes to local access, potential road hazards and expected traffic volumes during construction</td>
<td>Design of appropriate signage and communication material</td>
<td>New Largo Mine Contractor</td>
<td>Pre-construction</td>
</tr>
<tr>
<td>Establish a detailed grievance mechanism for downstream users to lodge concerns, suggestions and complaints which can be dealt with by the Project in a timely manner.</td>
<td>Completed community grievance mechanism, Mechanism communicated to local residents through a variety of media</td>
<td>New Largo Mine Contractor</td>
<td>Pre-construction</td>
</tr>
</tbody>
</table>
7 Analysis of alternatives

For the purpose of the SIA the analysis of alternatives will focus on alternative routes for the deviation of the R545, Mine Plan 6 and Mine Plan 7 and the no project alternative. The other technical alternatives will be discussed in the EIA report. The initial SIA was conducted for Mine Plan 6. After the completion of the study, Mine Plan 7 was made available. The changes in the mining plan resulted from the findings of other specialist reports – the pans that will be affected by Mine Plan 6 were a special concern. Social impacts, unlike most environmental impacts, are not site specific and occur in the communities surrounding the proposed mine. The changing of the mining plan will not significantly alter the potential social impacts that will result from mining. The most significant change will be the changes in the road options. The alternatives will be discussed below.

Figure 25: Map showing Mining Plan 6
7.1 Alternative routes for the deviation of the R545 and the no project alternative:

Option 1A – new road around north-east of pan. (Possible with Mine Plan 6 and 7)

Road Option 1A follows the existing R545 and split off just before Wilge. The new section of the road will affect the existing land owners negatively, since it will increase accessibility to their farms, which in turn may cause an increase in crime. They will also be affected during the construction phase of the projects and have to put up with short term nuisances. The road may impact on their daily living activities and farming activities. The majority of the area that will be affected by this proposed road belongs to Anglo. Other farmers prefer this road, as it will be the shortest alternative. For the residents of Phola and Ogies this alternative will be the preferred alternative from an accessibility perspective, given the road that bypass Phola is improved and widened. In its current condition the road is narrow and dangerous and many accidents occur on the road. The distance between the road and some of the shacks is also a concern.

The residents from Kendal Forest Holdings also prefer option 1A because it is the closest route to Balmoral Primary School. The new Kusile Road, which will be a public road also offers an alternative to residents of Kendal Forest Holdings.
Option 1A will not enter Wilge, and the business people in Wilge such as the owners of the Punch Shop and the filling station will lose some business. This will happen in any event if the R545 is demolished. This may be compensated for by the fact that Wilge is likely to expand to accommodate some of the people moving into the area.

**Option 1B – new road around south-west of pan (similar in length to Option 1A). (Only possible for Mine Plan 7)**

Road Option 1B (Option 2 in Figure 26) split from Road Option 1A. The proposed new section from where it split from Road Option 1A is entirely on Anglo property, and it will be shorter than Road Option 1A. It will affect less private land owners. This option will still bypass Wilge, and the impacts on Phola will be similar regardless of the option chosen. Based on the fact that it is shorter and less private people are impacted on, this will be the most preferred of all the options.

**Option 2 – far route to east – upgrading of existing road.**

Option 2 is an existing road and most of the communities felt that it is too far away to benefit them. They feel that option 2 will increase the cost of travel and the time that they will spend on the road. There will be no new impacts on farmers living adjacent this road, except an increase in traffic. The assumption is made that the new Kusile road will take some of the current traffic that uses the R545.

**No New Road Developed to Replace Section of R545 being demolished**

The R545 is an important access route for the affected communities. Not replacing it would will increase the cost of travel and the time that they will spend on the road. It will have financial and quality of life impacts for residents.

7.2 Alternative mine plans

**Mine Plan 6 – pan**

The social impacts for Mine Plan 6 and Mine Plan 7 will be similar. The only significant changes is that the life of mine will be longer for Mine Plan 6, therefore the economic benefits from the mine will be experienced for a longer period. From a social perspective the inclusion of pans in the mining area may affect the mine’s social licence to operate, since environmental pressure groups may view this as a lack of respect for the environmental legislation. The pans also play a role in the sense of place of the area.

**Mine Plan 7 – no pan**
Although the life of the mine will be shorter if Mine Plan 7 is chosen and the economic benefits may be less, it must be measured against the environmental gains of keeping the pans intact. The preservation of the pans will have a positive spin-off on the mine’s social licence to operate. Apart from the points above, the impacts for Mine Plan 6 and Mine Plan 7 are similar. Based on the potential positive impact on the mine’s social licence to operate and the natural environment (which fulfill an important social function), as well as the impact of Mine Plan 7 on the new route for the R545, Mine Plan 7 is seen as the preferred alternative from a social perspective.

**No-go Development (No New Largo Colliery)**

It is acknowledged that mining have a number of severe negative impacts, especially on the host communities and the bio-physical environment. The other side of the coin is that South Africa’s economy relies heavily on the mining industry, there are high levels of poverty and unemployment and it is a developing country. Mining makes a positive economic contribution to the host communities, and if it is managed responsibly the benefits to communities are significant. The potential impact of the energy crisis on poverty and employment rates needs to be considered. In the light of these social issues, the impact should the mine not continue will be bigger than the impact of the mine going ahead.
8 Conclusions and recommendations

When considering the social impacts of the proposed New Largo Mine, the importance of the project on a national scale must be considered. Electricity supply is a critical issue in South Africa at the moment and the proposed project will add to the stability of the service. From a greater societal perspective the project will thus have a positive impact. It is worth noting concerns about the long term impact on food security due to cumulative loss of high potential agricultural land. The proposed project will take place in an area surrounded by industrial development, and many of the impacts are already taking place. Stakeholders are also familiar with potential impacts. A small number of stakeholders will bear the majority of impacts of a project that is in the interest of the country at large. These impacts can be mitigated and managed – long term management is crucial to enhance Anglo’s social licence to operate and to minimise impacts on affected parties. The largest number of impacts will result from a change in land use and an influx of people.

Many social impacts occur as a result of bad communication processes, and positive relationships can go a long way in dealing with issues. The way in which issues are approach are a crucial aspects in the success with which it can be dealt with. The following general recommendations are made:

- Compile and implement a community relations strategy;
- Appoint a stakeholder relationship manager to assist with management of social impacts and dealing with community issues;
- Create a community liaison forum;
- Consult with the directly affected businesses and note special concerns;
- Install proper grievance and communication systems;
- Establish an environmental forum;
- Involve the community in the process as far as possible through the relevant forums – encourage co-operative decision-making and management and partnerships with local entrepreneurs;
- Start discussions with commercial role players;
- Make monitoring activities part of the Safety, Health and Environmental systems;
- Provide advanced communication (i.e. signage, advertisements in local papers) about changes to local access, potential road hazards and expected traffic volumes during construction;
- Engage with relevant roleplayers e.g. police and municipalities in pre-construction phase to lay the foundation of future working-relationships;
- Engage and form partnerships with NGO’s to assist with the management of social impacts in communities; and
- Compile a strategy to deal with labour issues such as recruitment, employment and procurement. This will need the buy-in of contractors and local communities.

The need for the proposed project is undeniable in the current economic conditions. It is therefore recommended that the project proceed. The management of social impacts is a long-term process. It is recommended that the SIA should be updated throughout the life of the mine to accommodate the changing social environment and include new impacts that may occur. The potential impact of the mine on the social environment in the long term should be considered in the strategic planning process of the mine. The only way in which the social impacts will be managed successfully is through partnerships with different role players, as the management of social impacts cannot and should not be the responsibility of only one party.
9 References


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Itekeng Development Consulting. April 2007. **Baseline report for the proposed New Largo open cast coal mine, Mpumalanga Province.**


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World Wide Web:


http://www.mputopbusiness.co.za (accessed 02/07/2009)


Details of specialist and declaration of interest in respect of an application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010

PROJECT TITLE

New Largo Colliery including the Relocation R545

Specialist: Ilse Aucamp
Nature of specialist study compiled: Social Impact Assessment
Contact person: Ilse Aucamp
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Fax: 086 648 3149
Qualifications & relevant experience: BA(SW) M(Env Man) 10 years
Professional affiliation(s) (if any): South African Council for Social Service Professionals
The specialist appointed in terms of the Regulations

I, The Carin Aucamp, declare that:

General declaration:

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I will take into account, to the extent possible, the matters listed in Regulation 6;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 71 and is punishable in terms of section 24F of the Act.

Signature of specialist: [Signature]

Name of company: Petersq

Date: 4 October 2011

Signature of Commissioner of Oaths: [Signature]

Date: 7/10/2011

Designation: [Designation]

Official stamp (below)