

Table 3.1: Overview of Expected Geographical Change Processes and Potential Impacts

GEOGRAPHICAL PROCESSES				
Summary of Baseline Profile	Change Process and Expected Impacts	Impact Category		Status
		Pre-Construction, Construction & Decommissioning	Operation & Maintenance	
The predominant land use in the Delmas area is agriculture, although it is not the predominant economic sector. The sites self is characterised by crop farming (site 2), mining (site 3) and non-specific land use (site 5).	If site 2 is selected, the presumed lease agreement with the occupier will be terminated and the existing crops will be cleared from the area. This will have an immediate economic impact on the land occupier in question. It will reduce the crop yielding ability of maize production in the country as a whole, but due to the size of the land in question, this is not deemed to be a significant reduction. Immediate land use changes are not foreseen on sites 2 and 5 as the activities on these sites are already mining related.	2	1 ⁹	Negative to Neutral, depending on the preferred site.
A number of development activity corridors and economic activity nodes are planned in the area. These corridors and nodes are mostly concentrated around major linear spatial features. Planned residential developments mostly concentrate on in-fill developments of existing residential areas, none of which are in close proximity to the proposed	The construction and operation of the proposed power station and associated infrastructure (i.e. the presence of such infrastructure in the area) should form part of the local municipality's future spatial development planning and can therefore influence the placement of certain land uses to a certain extent.	2 ¹⁰	1	Negative to Neutral where it affects development plans. Positive where it enhances available services, which in turn enables further

⁹ Only one alternative will be in operation during this phase.

¹⁰ A preliminary assessment was not undertaken as the exact location and the extent of future land use was not known at the time of the study.

GEOGRAPHICAL PROCESSES

Summary of Baseline Profile	Change Process and Expected Impacts	Impact Category		Status
		Pre-Construction, Construction & Decommissioning	Operation & Maintenance	
project sites.				development.
Unsettled land claims within the Delmas area are mostly located to the north and north-east of the municipal area.	No impact foreseen as there are no land claims on any of the proposed site alternatives.	n/a	n/a	n/a
The Delmas IDP (2009/10) states that, to date, the tourism potential of the Delmas area has not been fully developed and that tourism development is one of the 'untapped areas' in Delmas.	The presence of a power station might detract from the tourism experience, which in turn might yield an economic impact if visitors choose to rather visit more unspoilt areas. However, this impact is highly dependent on the reasons why tourists visit a certain area, which at the time of the study was unclear.	1	1	Negative to neutral

2.6.2 Information Requirements

To fully assess the potential impacts as a result of geographical change processes, more information is needed on the following aspects:

- The agricultural potential of the 3 sites;
- Detail on landownership and/or lease agreements on the 3 alternative sites;
- The size and number of expected construction and operational vehicles as well as which route(s) will be used to gain access to the various construction sites;
- Detail on planned developments within a 5km radius of the site alternatives; and
- The tourism profile of the local area.

2.7 Baseline Demographical Processes

Demographical processes relate to the size and composition of a community. The baseline demographical profile includes an overview of demographical aspects such as the population size, the racial composition, age, gender and the educational profile of the population. It also provides a broad overview of household arrangements.

2.7.1 Population

The Delmas Local Municipality covers a geographical area of 1,567.7km² in the western portion of the Mpumalanga Province. To the north, west and south the municipality borders on neighbouring Gauteng, whereas the eastern border is made up of the Emalaheni Local Municipality that also forms part of the Nkangala District.

In 2001, Delmas had a total population of 56,199 people. The population size decreased by some 5,747 people between 2001 and 2007, so that, in 2007, the population size was estimated at around 50,452 people. It is unclear why so many people left the area or where they went to, but presumably the majority left for the bigger urban areas either within the province itself or for neighbouring Gauteng in search of employment opportunities. In 2007 the population density in the area was around 32 persons per km², which is indicative of the mostly rural nature of the area.

Delmas has a fairly young population and in 2007 well over a third of the population (42.0%) were below the age of 15. The economically active population group (defined by StatsSA as the ages between 15 and 65) accounts for just over a half (54.1%) of the total population. It is noteworthy that the biggest decline in population between 2001 and 2007 was in the economically active population (by some 8,562 people), whereas the biggest increase in the population during the same period was in the age category 0-14 (by some 3,247 people). This tie in with the possibility that economically active individuals are leaving the area in search of employment elsewhere.

The predominant population group are Black African (88.3% in 2001, decreasing slightly to 87.6% in 2007). Just over half (51.2%) of the population are male, which is a turn-around from 2001 when the population was female-dominated. By far the majority of households are male-headed (71.2% in 2001). Interesting to note is that the majority of people who left the area were female (2,538 females against only 473 males), but is unclear why this phenomenon occurred.

2.7.2 Households

A household is defined as: "One or more people occupying a housing unit as their usual place of residence. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated people who share living arrangements".¹¹

In 2001, Delmas had a total of 13,949 households, with an occupancy rate of approximately 4 persons per household. Despite the outflow of people, the number of households increased so that in 2007, Delmas had a total of 15,130 households, reducing the occupancy rate to 3.3 persons per household.

Table 3.2 below provides an overview summary of the population demographics of the study area in relation to South Africa, the Mpumalanga province and the Nkangala District.

Table 3.2: Summary of Population Characteristics

	South Africa	Mpumalanga	Nkangala		Delmas	
	2001 ¹²	2007	2001	2007	2001	2007
Area size (km ²)	1,219,912	79,511.5 (6.5% of SA's land surface)	16,892.6 (21.2% of the MP's land surface)		1,567.7 (9.3% of the NDM's land surface)	
Total population	48,502,063	3,643,435 (7.5% of SA's total population)	1,020,285 (28.0% of the MP's total population)	1,226,498 (33.7% of the MP's total population)	56,199 (4.6% of the NDM's total population)	50,452 (4.1% of the NDM's total population)
Population density (people per km ²)	39.8	45.8	60.4	72.6	35.8	32.2
Total households	12,500,610	940,403 (7.5% of SA's total number of households)	257,430 (27.4% of the MP's total number of households)	305,566 (32.5% of the MP's total number of households)	13,949 (4.6% of the NDM's total number of households)	15,130 (5.0% of the NDM's total number of households)
Avg. persons per household	3.9	3.9	4.0	4.0	4.2	3.3

¹¹ rhr.ua.edu/blackbelt/glossary.html

¹² Census 2001 data (2007 data not readily available)

Predominant Population Groups	Black African (79.5%) ¹³	Black African (92.0%)	Black African (91.2%)	Black African (90.9%)	Black African (88.3%)	Black African (87.6%)
	-	-	White (7.7%)	White (7.8%)	White (11.0%)	White (12.0%)
Predominant Gender	Female (50.8%) ⁹	Female (51.4%)	Male (59.1%)	Female (50.1%)	Female (50.8%)	Male (51.2%)
Predominant Age Group	Working age (62.9%)	Working age (62.0%)	Working age (62.2%)	Working age (66.3%)	Working age (63.8%)	Working age (54.1%)

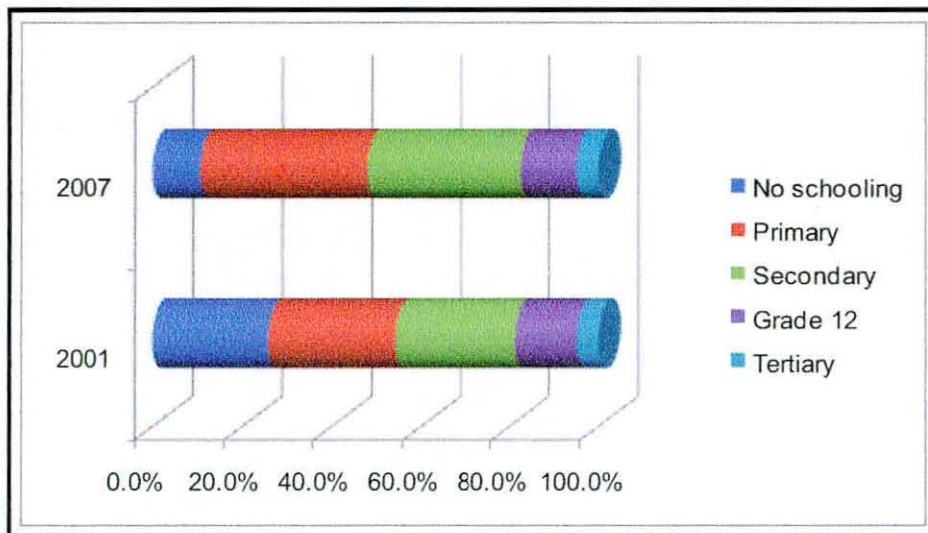
2.7.3 Education

One of the driving forces behind social change is educational attainment, which in turn is linked to poverty levels as there appears to be a correlation between the level of educational attainment and income levels. People with higher educational levels tend to be economically better off, and therefore contribute more to the reduction of the unemployment rate. Educational attainment is also linked to poverty in the sense that funds are required to further studies, therefore people living in less favourable economic conditions tend to be unable to further their education, which in turn holds them in a downward poverty spiral.

An overview of the educational profile for the affected area is provided in Figure 3.5. In 2001, a quarter (25.9%) of the population aged 20 years and older had no form of schooling. Coupled with those individuals who only completed some form of primary education (a further 28.3%), this means that, in 2001, more than half (54.2%) of Delmas' population had limited educational skills, which in turn would hinder their employability on the general job market. A further quarter (27.1%) of the population completed some form of secondary education, which could enhance their employability, but it is believed that it would only slightly increase their chances of finding employment. Only 14.0% of the total population completed Grade 12 with a further 4.7% who went on to obtain a tertiary qualification. The situation only improved marginally between 2001 and 2007: Although the number of people who had no form of education decreased drastically to 10.7%, those who completed Grade 12 also decreased to 12.7%, whereas those who only completed some form of primary or secondary education still accounted for more than two thirds of the population (71.8%).

⁹ Census 2001 data

Figure 3.5: Overview of the Education Profile for Delmas (2001 and 2007 compared)



So What?

- The baseline demographic profile provides an overview of the local area that will be affected to ensure proper planning that will affect the least amount of people during both construction and operation; and
- The baseline educational profile provides the project proponent with an indication of the skills levels that might be available in the area in an attempt to predict whether or not it would be possible to source labour and services from the local community.
- Although it seems that the project will be able to source local semi-skilled and unskilled labour with relative ease, it may be more difficult to find qualified individuals locally. It is likely that qualified positions will be filled from elsewhere in the province and from Gauteng. As the quality of rural state schooling is increasingly being questioned, it may be necessary to invest in comprehensive training for persons appointed from the area and other similar areas.

2.8 Demographical Change Processes

The construction of the proposed power station and associated infrastructure will lead to a (mostly temporary) change in the number and composition of the population within the affected local area, which in turn could lead to economic, land use, and socio-cultural change processes.

2.8.1 Workforce

It was estimated that approximately 5,500 employment opportunities would be created with the construction and operation of Eskom's 4,800MW Medupi Power Station, of which 5,000 positions would be during construction with a further 500 positions during operation (Environmental Impact Report for the proposed establishment of a New Coal-Fired Power

Station in the Lephalale Area, Limpopo Province, 2006:427). It was further estimated that the construction period would last approximately 42 months and that the power station would be in operation for an estimated 50 years.

At 600MW the Kuyasa power station is significantly smaller than Medupi, and therefore it is not expected that as many employment opportunities will be created. At the time of the study the number of employment opportunities that would be created by the proposed project was unconfirmed, but a conservative estimate places it at around 1,000 positions, some on a temporary basis during construction with others on a more permanent basis during operation. A more exact estimate would have to be confirmed during the Impact Assessment phase.

In addition to the power station itself, the possibility also exists that the Delmas Colliery would have to expand to meet the additional demand for coal created by the power station. In the case of an expansion this would create further employment opportunities, which means an increased workforce. At the time of the study it was unclear whether or not such an expansion would be required, and if so, what the required workforce would be.

2.8.2 Potential Impacts

Table 3.4 below provides an overview of the expected demographical change processes as well as the expected impacts that might occur as a result of these change processes taking place. The potential impact(s) that follow from a particular change process taking place will be assessed in detail during the Impact Assessment phase.

Table 3.4: Overview of Expected Demographical Change Processes and Potential Impacts

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Summary of Baseline Profile	Change Process and Expected Impacts	Impact Category		Status
		Pre-Construction, Construction & Decommissioning	Operation & Maintenance	
<p>In 2007 the total population in the Delmas area stood at just below 50,500 people. Measured against 2001 Census data, approximately 40% of the population live in Delmas itself, whereas the remaining 60% live in Bottleg and its extensions. The overall population density in 2007 was estimated at around 32.2 people per km², which is indicative of the overall rural nature of the municipal area.</p>	<p>It is expected that the construction and operation of the proposed power station and its associated infrastructure (including mine expansion, if required) will lead to an influx of people to the area. Based on the conservative estimate of around 1,000 new employment opportunities, this would represent an approximate 2% increase in population, which is more than double the current population growth rate of 0.58% (Delmas IDP, 2009/10). A change in the number and composition of the local population can lead to economic, health, safety and social-wellbeing impacts.</p> <p>However, the impact is expected to significantly decrease during the operation and maintenance phase as the size of the operational team will be considerably smaller than that of the construction team.</p>	1	1	Negative to neutral, depending on the number of people, the municipality's ability to cope with the accelerated population growth rate and the affected local community's resilience to change.
<p>The current baseline profile indicated that close on 6,000 people left the area since 2001, presumably in search of employment elsewhere.</p>	<p>The presence of the construction team and the prospect of employment might reverse the outflow of people, i.e. an influx of unemployed work seekers is expected. It is difficult to predict</p>	1	1	Negative to neutral, depending on the size of the work seeker population.

DEMOGRAPHICAL PROCESSES				
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	what the impact would be as a result of this, as it is coupled to the number of people who return to the area. However, as is the case with the more controlled influx of people due to formalised employment, the influx of unemployed work seekers can lead to economic, health, safety and well-being impacts. It can further lead to the expansion of informal settlements, which can amplify the expected impacts.			
From the Google Earth image, it appears that there are approximately 84 households and structures within a 5km radius from the sites under investigation.	As per figure 3.6 below, it appears that the biggest cluster of households and other structures are located around site 3, to the north (22-31), east (7-13 and 14-21) and south (1-6) of the site. This is also the only site where there is a structure (32) located within the site's footprint, but at this stage it is unclear what the structure is used for and whether or not it is inhabited. Although households and structures immediately surrounding the site might not be directly affected, indirect impacts (e.g. visual impacts, air quality impacts, etc.) are likely due to the close proximity of the power station to these households/structures. Depending on the extent and intensity of such indirect impacts, the relocation of these households/structures might	2	n/a	Negative

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	<p>become necessary.</p> <p>The relocation of households' impacts on the affected households' way of life – but this is to a large degree influenced by the affected family's level of attachment to their environment, which in turn is influenced by the family history, years spent in the area, etc.</p>			

Figure 3.6: Households and structures within a 5km radius from the site alternatives

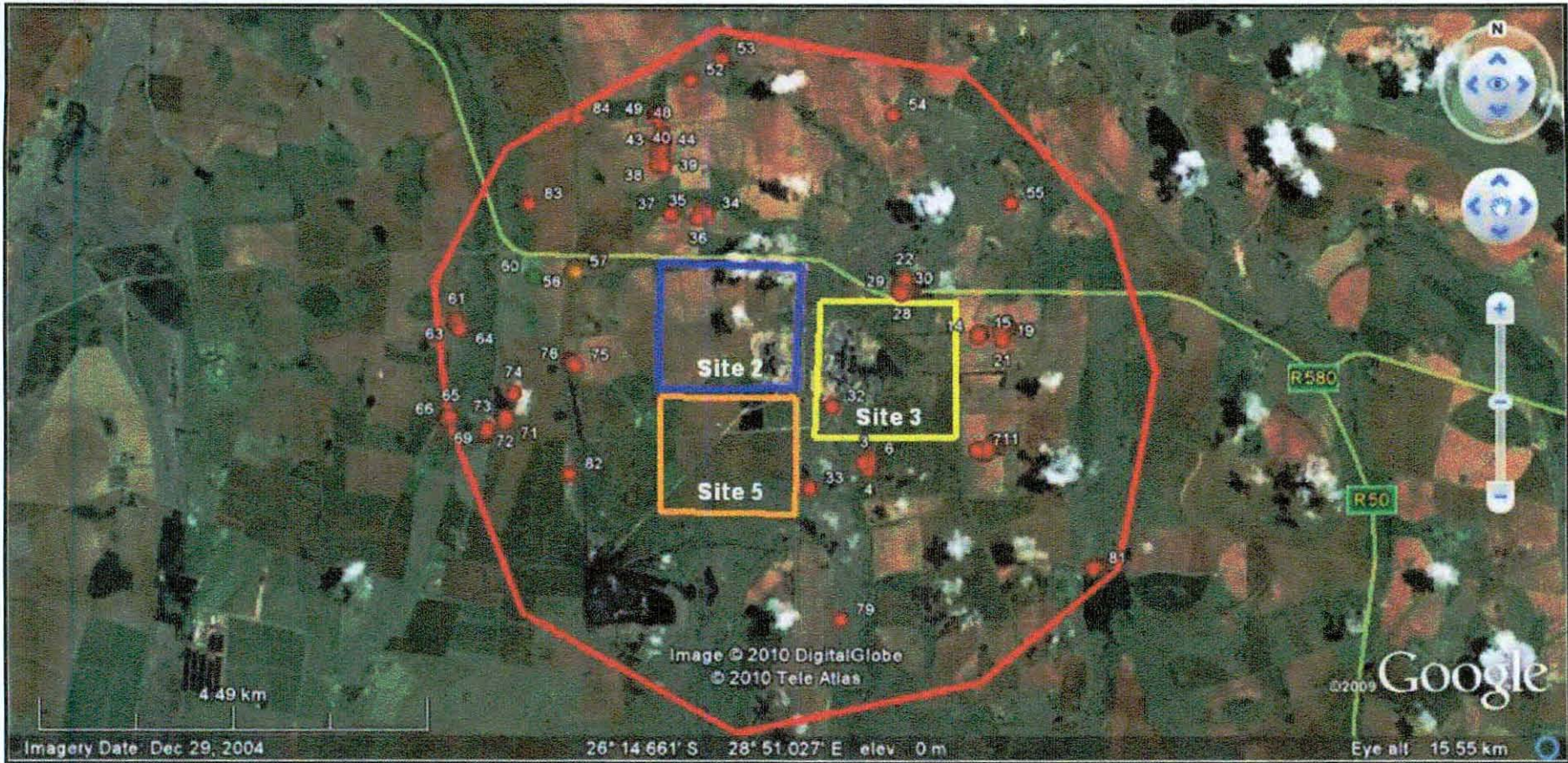


Table 3.5: Preliminary Assessment: Relocation of Households

DEMOGRAPHICAL CHANGE PROCESS: RELOCATION OF HOUSEHOLDS			
Category 2 Impact	The relocation of households would have an impact on the affected residents' way of life and the standard of life they have grown accustomed to.		
	Site 2	Site 3	Site 5
Extent	Local	Local	Site
Duration	Long term	Long term	Long term
Magnitude	High	High	High
Probability	Probable	Highly probable	Probable
Status	Negative	Negative	Negative
Explanatory notes:			
<p>This brief assessment was based on a desktop identification of social sensitive areas through the use of <i>Google Earth</i> (refer to Figure 3.6). Households and other structures have been marked that are within a 5km radius of the three site alternatives - these were the social sensitive areas visible to the social specialists at the time of the study, although it is possible that more structures areas might be identified during the Impact Assessment Phase.</p> <p>The closest houses/structures to Site 2 (blue) are located approximately 500m to the north of the site [32-36]. An informal settlement [52] is located approximately 1km to the west of this site. Further eastwards, at approximately 1.5 km from the site, there is a tourist destination in the form of a lodge [60].</p> <p>One structure [32] is located within the boundaries of Site 3 (yellow), although it is unclear what the structure is used for or whether or not it is inhabited. A cluster of households and other structures are located approximately 95m to the north of the site [22-31]. Approximately 260m to the east of the site lays another cluster of households [14-16 and 17-21]. More houses are located approximately 290m to the southeast of the site [7-13], with more houses approximately 240m to the south of the site [1-6].</p> <p>Site 5 (orange) is located in close proximity to the Delmas Colliery, presumably where coal for the power station would be sourced from. The closest structure/household to this site is located approximately 170m to the east of the site's eastern boundary [33]. Further east, at approximately 800m, is another cluster of houses, which is the same cluster of houses that lies south of site 3 [1-6]. More houses lie to the west of the site, at approximately 1.8km [65-74].</p> <p>Although site 3 is the only site that has a structure within its boundaries, the close proximity of households and structures to all of the sites have to be considered as the construction and operation of the power station might yield indirect social impacts on these houses and structures, which in the end might necessitate the relocation of these structures and households, especially in the case of households that are inhabited by humans.</p>			

2.8.3 Information Requirements

To fully assess the potential impacts as a result of demographical change processes, more information is needed on the following aspects:

- The composition of the construction workforces in terms of size, skills levels, and origin;
- The composition of the maintenance workforce and their activities;

- The number of local employment opportunities that could influence the number of people entering the area; and
- A baseline profile of the households within a 5km radius from the various sites.

2.9 Baseline Economical Processes

Economical processes relate to the way in which people make a living and the economic activities within that society. The employment status within any given area gives an indication of the economic stability of such an area and also serves as an indicator of such an area's general well-being.

2.9.1 Regional and Local Economic Composition and Trends

The economic growth rate of the Nkangala District area was on average 3% per year between 1996-2003, compared to the 2% for the Mpumalanga Province and the national average of 2.5%. Nkangala contributed 3.32% to the national economy in 2003, compared to the 6.87% contribution by the Mpumalanga province to the national economy (Department of Cooperative Governance and Traditional Affairs, 2005). The overall economic growth for the Nkangala District area declined to 1.9% during the period 2005-2007 (Mpumalanga Provincial Government, 2008).

The main economic sectors that are dominant in this district are mining, manufacturing and the energy/electricity sectors which contributed 34.1%, 21.8% and 16% respectively to the local economy during 2003 (Department of Cooperative Governance and Traditional Affairs, 2005). The mining contribution is due to the activities of a number of large scale coal miners such as BHPBilliton, Anglo Coal and Xtrata. Information from the Nkangala District indicates that the Delmas area contributes between 3-4% to the economy of the total district, but this contribution is dwarfed by the contributions of the Emalathleni and Steve Tshwete areas (between 42% and 47% each). There is evidence that the total output of the agricultural sector experienced significant levels of growth in the district while the mining and minerals sector declined both within the district and at a provincial level (Mpumalanga Provincial Government, 2008).

In contrast to these mining dominated areas the main sector in the Delmas area is trade and hospitality followed by agriculture. Both mining and manufacturing do however play a major role, contributing just over 10% each. The electricity, gas and water industry contributes less than 5% of the local economy despite the fact that Eskom operates a number of large power stations in the district area that comprise a large portion of South Africa's electricity generation capacity.

The Nkangala District has completed a Local Economic Development, Job Creation and Marketing Strategy to address the issues of economic development in the district. The LED Strategy has the following seven pillars:

- Good Governance and Management/Delivery Capacity;
- Human Resources and Community Development;
- Industrial and Big Business Development;
- SMME Development and Support;
- Agricultural Development;
- Tourism Development; and
- Rural Development.

2.9.2 Employment and Economic Sectors

Table 3.6 below provides an overview of the employment and economic sectors of the study area in relation to South Africa as a whole, and the affected province (Mpumalanga). From this table it is clear that the study area is characterised by a fairly low employment rate where, on average, just over half of the working age population (excluding the not economically active population) within the study area is formally employed.

Table 3.6: Overview of Employment and Economic Sectors

	South Africa	Mpumalanga	2001		2007	
	2001 ¹⁴	2007	Nkangala (N = 638,550)	Delmas (N = 36,109)	Nkangala (N = 773,941)	Delmas (N = 32,645)
Employed*	33.7%	40.1%	31.3%	36.6%	42.1%	48.2%
Unemployed*	24.0%	20.0%	24.4%	27.1%	19.8%	17.3%
Not economically active	42.3%	39.9%	44.4%	36.3%	38.1%	34.5%
Employment rate**	58.4%	66.7%	56.2% (N = 355,340)	57.5% (N = 23,016)	68.0% (N = 479,190)	73.6% (N = 21,367)
Predominant industry	Community services (29.1%)	Undetermined (29.0%)	Undetermined (82.3%)	Undetermined (79.0%)	Undetermined (29.1%)	Manufacturing (17.6%)

* This is the percentage employed/unemployed of the entire working age population and should not be read as the unemployment rate, i.e. the not economically active population is included in this segment.

** In order to reflect a more accurate employment rate, the not economically active population has been excluded from this segment.

When local employment figures are considered in the context of provincial and district information it seems that employment levels in the Delmas area are higher than that of either the district or the province. Better local employment may be due to the migration of

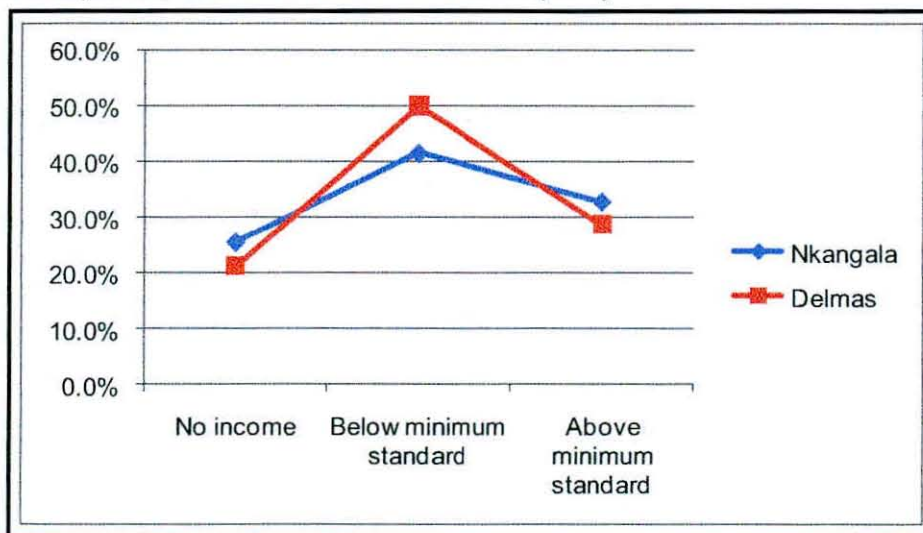
¹⁴ Census 2001 data (2007 data not readily available)

unemployed work seekers to larger economic centres such as Gauteng or the Witbank/Middelburg area, a phenomenon which is often associated with rural areas with limited opportunities.

2.9.3 Income Profile

The graph below (Figure 3.7) provides an overview of the household income levels for Nkangala compared to that of Delmas. The graph indicates that, although fewer households in Delmas has no form of income compared to the district as a whole, Delmas is still characterised by poorer households given the fact that by far the majority of households earn less than minimum standard (\leq R 20,000 per annum), including a vast number of households who have no income whatsoever. Given the increased employment rate in the area between 2001 and 2007, the household income profile might have changed significantly in recent years, although Community Survey 2007 did not include household income as a variable.

Figure 3.7: Comparative overview of Household Income (2001)



Evidence of generally better access to employment is apparent from the comparison of local, regional and provincial income figures. Fewer respondents in the Delmas area tended to indicate that they received no income and significantly more persons indicated that they receive between R1 and R800 per month. The lack of opportunity for both the unemployed as well as the highly skilled, which explain the skills and employment profiles above, may also help to explain the local income profile.

2.9.4 Macroeconomic issues of importance

Due to the integrated nature of the South African economy and the heavy reliance of rural areas on urban centres for goods, services and labour, it is important to consider macroeconomic forces which currently affect the local economy.

- **Return of energy and resources demand**

The 4th quarter GDP results indicate an increase of 3.2% quarter on quarter annualised (StatsSA, 2010), which may be indicative of a gradual local and worldwide recovery from the recent economic recession. This recovery probably signals a return of the demand for resources and energy from both the developed world as well as large middle income countries such as Brazil, India and China. The trend can be seen by the gradual increase in the price of export Coal to above \$60 per ton and the substantial increase of the oil price (bent crude per barrel) from \$50 in the April 2009 to \$85 in April 2010. Although a second reduction in economic activity (a so called double-dip recession) has not been ruled out, there are increasing signs that growth has returned, albeit in the form of a longer and slower growth path (as opposed to the strong growth experienced in the period 2000-2008). Additionally, continuous population growth makes long term resource and energy growth inevitable.

- **Security of Power Supply**

In the period immediately after the supply shortage and 2007/2008 power blackouts, Eskom announced a number of new power generation facilities including new coal-fired power stations, refurbishment of mothballed stations and oil, and diesel or gas powered turbines in order to ensure appropriate supply and the needed reserve margin. In the intervening period several of these projects have experienced delays as the economic recession has led to reductions in demand pressure. However, with possible recovery looming, the situation may change in 2010/2011 and demand growth may resume. Short to medium term electricity supply security is instrumental in securing economic growth and investor confidence (HIS Global Insight, 2009).

- **International focus on clean energy**

The development of renewable energy feed-in tariffs and recent comments by the International Monetary Fund (IMF) regarding a preference for financing cleaner energy, during the application by Eskom for project financing, are likely to influence the energy sector. These developments could lead to an increase in activity by independent power producers (IPPs) focusing on clean energy, thereby creating a competitive environment for electricity provision. However, this may also increase public resistance to traditional generation methods, eventually leading to policy shifts and further economic incentives, such as tax advantages and rebates, for cleaner energy. These incentives are currently being expanded in Europe and the US, and South Africa may follow with similar initiatives.

2.9.5 Site Economic Activity

Economic activity on site alternatives 2 and 3 is limited to maize farming on unused and undeveloped sections. There seems to be no cultivation agriculture activities found on site alternative 5. The project proponent, Kuyasa¹⁵, indicated that the land on which the sites are located belongs to Billiton Energy Coal South Africa (BECSA) and that the land is currently leased to users such as the mine and farmers. Grazing cattle was spotted south of site alternative 3, but they may graze on other sites as well. The exact nature of the lease agreements and the rights of farmers to the sites is not known and must be investigated further.

Residents on the northern border of Site 3 (who also seem to be farming in the area) have set up a small kiosk and fast food restaurant near their residence and seem to benefit from business as a result of passing traffic on the R50 due to mining and power generation activities in the area. A lodge is in operation near the current Delmas colliery to the west of site alternative 2. The economic activity of local residents and the lodge are unverified at this stage and need to be confirmed during the impact assessment phase.

So What?

- The project area is expected to experience renewed interest from mining operations in order to capitalise on resource demands.
- The district may lose productive agricultural land as mineral deposits that were previously not economically viable become so. Operations which have been marginally profitable during the economic downturn may return to profitability if the current trends continue and global resource demands recover fully.
- The project has the potential of "securing" economic activity by assisting in removing supply constraints if Eskom generation activities result in a supply shortfall. When supply is constrained it represents a limitation to economic growth. When a supply reserve is available, it represents an opportunity for economic growth.
- Coal fired power producers (such as those found in the Nkangala District Municipality area) may be affected in the long term as an increasing number of renewable IPPs attempt to provide energy to the grid and provide off-grid solutions. These IPPs may benefit from better economic viability due to increasing economic policy incentives for renewable energy.
- The economy of the Delmas area is currently small compared to other areas in the district and the province. Economic development and opportunities may be welcomed both by local residents and government, depending on public perception on the potential environmental impact.
- Although the economy is diversified it is likely that a portion of the industry benefits due to the power station may flow to neighbouring Gauteng province due to its proximity. The

¹⁵ Mr M Saliwa of Kuyasa, personal communication

extent to which local businesses are able to provide services to the project must be investigated further.

- Despite higher employment levels in the local area, unemployment is still high. The project might provide some employment relief, depending on the hiring practices used during the project and the extent to which local employment is prioritised.
- Loss of access to land for cultivation and grazing purposes is likely to be the main local negative economic impact that must be investigated. There appears to be possible local economic benefit due to the proposed project in the form of increased business opportunities that require businesses to be in close proximity to the site.

2.10 Economical Change Processes

Economical change processes relate to the changes brought about to the employment and general economic profile of an area as a result of the introduction of any development. For example, job opportunities might be created as a result of the construction and maintenance of the proposed power station and associated infrastructure. Employment creates a source of income, which in turn enables the employed individual to access services as a support mechanism for his/her family.

2.10.1 Potential Impacts

Table 3.7 below provides an overview of the expected economical change processes as well as the expected impacts that might occur as a result of these change processes taking place. The potential impact(s) that follow from a particular change process taking place will be assessed in detail during the Impact Assessment phase.

Table 3.7: Overview of Expected Economical Change Processes and Potential Impacts

ECONOMICAL PROCESSES				
Summary of Baseline Profile	Change Process and Expected Impacts	Impact Category		Status
		Pre-Construction, Construction & Decommissioning	Operation & Maintenance	
The supply shortage experienced by Eskom has highlighted the implications of security of supply and its role in economic growth. Although demand for electricity dropped in 2009, demand growth may resume in 2010/2011, highlighting the economic implications.	The project has the potential of “securing” economic activity by assisting in removing supply constraints if Eskom generation activities result in a supply shortfall.	1	1	Positive
A likely gradual economic recovery and a recovery of the resource sector prices are occurring. This may lead to increasing investment and business opportunities in resources and energy generation sectors in South Africa.	The proposed project is likely to contribute to this trend by creating economic injections, supply opportunities and increased consumer spending both during construction as well as operations. A large component of construction costs would involve the purchase of overseas equipment, but South African construction firms will likely benefit to a large degree. The level on local beneficiation from construction is uncertain and requires further investigation. There is a greater chance that the operational phase will supply opportunities that will be regional or local in nature due to the existing power generation industry.	1	1	Positive
High unemployment and low access to income in	The proposed project will likely improve the	1	1	Positive

ECONOMICAL PROCESSES				
Summary of Baseline Profile	Change Process and Expected Impacts	Impact Category		Status
		Pre-Construction, Construction & Decommissioning	Operation & Maintenance	
the local area and especially the district.	current baseline profile through the creation of employment opportunities. Increased household spending and upstream industry activity will result in indirect employment. Employment will in turn result in better income earnings and an improved local and regional income profile. The exact level to which local opportunities will be created must investigated further.			
Commercial crop farming appears to be the main activity in the area.	The proposed project will probably impact on farming activities if site 2 or 3 is chosen by denying access to current rented farmland. This will in turn reduce local agricultural production and farmer income from agricultural activities. In respect to this impact there are indications that site 5 may be a preferred site.	2	2	Negative
A hospitality/accommodation establishment and a trading business are located in the area in close proximity to at least one site.	The proposed project may result in increases in revenue for businesses in close proximity that supply essential services, such as accommodation, catering and basic consumer products. Negative impacts are expected to be minimal as the establishments are already located in an area of industrial development close to the Delmas coal mine. It is thus unlikely	1	1	Positive

ECONOMICAL PROCESSES

Summary of Baseline Profile	Change Process and Expected Impacts	Impact Category		Status
		Pre-Construction, Construction & Decommissioning	Operation & Maintenance	
	that these businesses' customer patronage is based on a pristine environment – however, this will have to be confirmed during the impact assessment phase.			

Table 3.8: Preliminary Assessment: Economic Impact on Farming Activities

ECONOMICAL CHANGE PROCESS: CHANGE IN AGRICULTURAL LAND USE			
Category 2 Impact	The proposed project will probably impact on farming activities if site 2 or 3 is chosen by denying access to current rented farmland. This will in turn reduce local agricultural production and farmer income from agricultural activities.		
	Site 2	Site 3	Site 5
Extent	Site	Site	Site
Duration	Long term	Long term	Long term
Magnitude	Medium	High	Low
Probability	Probable	Highly probable	Improbable
Status	Negative	Negative	Negative
Explanatory notes:			
<p>This assessment is based on the observation of maize farming on a portion of both Site 2 and 3 and grazing cattle observed south of Site 3 which may also be found on the other sites. The impact on Site 2 is likely to be reduced as the proponent indicated during interviews that the project infrastructure will be located south of the existing power line, which greatly minimises impacted farmland.</p> <p>There may still be grazing rights allocated to site 5 and these will be investigated further during the EIA phase.</p> <p>The total value of crops planted (both historically and in the last year) and a realistic loss of income for the renter (based on the lease contract) will be modelled during the EIA phase.</p> <p>In order to gather necessary information interviews with lessees is considered crucial.</p>			

2.10.2 Information Requirements

To fully assess the potential impacts as a result of economical change processes, more information is needed on the following aspects:

- The total size of affected farm/property portions leased or owned and used for cultivation, in order to determine the size of the possible agricultural production loss;
- The types of activities that are pursued on any given (affected) property;
- The income derived from these activities;
- Capital investments that have been made on (affected) properties with the aim to generate income;
- The number of people that are employed by affected farmers or other businesses;
- The employment opportunities that will be created, both formal and informal in nature and the likely local percentage of this;
- Likely local supply opportunities which may increase the level of local beneficiation; and
- Total construction value of the project and likely annual revenues during operation.

2.11 Baseline Institutional and Legal Processes

Institutional and Legal processes refer to the role and efficiency of the local authority and other service providers in the area in terms of their capacity to deliver a quality and uninterrupted service to the local area.

2.11.1 Municipal Services

Table 3.8 below provides an overview of the municipal services of the Delmas area in relation to the Nkangala District and the Mpumalanga Province as a whole. No data could be obtained for the overall municipal service delivery in South Africa.

Table 3.8: Overview of Municipal Service Delivery

	South Africa	Mpumalanga	2001		2007	
			Nkangala	Delmas	Nkangala	Delmas
Energy Cooking	-	Electricity (55.7%)	Electricity (48.8%)	Coal (49.1%)	Electricity (59.6%)	Electricity (54.1%)
Energy Heating	-	Electricity (45.0%)	Electricity (47.9%)	Coal (54.6%)	Electricity (49.3%)	Coal (47.4%)
Energy Lighting	-	Electricity (82.2%)	Electricity (79.3%)	Electricity (64.9%)	Electricity (81.5%)	Electricity (80.1%)
Refuse	-	Own disposal (49.6%)	Own disposal (43.9%)	Removed once a week (62.5%)	Own disposal (48.1%)	Removed once a week (75.1%)
Sanitation	-	RDP standard or above (55.5%)	RDP standard or above (50.6%)	RDP standard or above (69.1%)	RDP standard or above (54.9%)	RDP standard or above (78.0%)
Water	-	RDP standard or above (91.1%)	RDP standard or above (76.7%)	RDP standard or above (66.4%)	RDP standard or above (75.9%)	RDP standard or above (74.1%)

Although the overall number of households in the Delmas area who make use of electricity for lighting has increased between 2001 and 2007, large segments of the population still make use of coal for cooking and heating purposes. At least three quarters of households within Delmas have their refuse removed once a week, which is much higher than the standard for the district where the majority of households make use of their own (informal) waste disposal sites, which means that waste is not properly stored or treated, which in turn leads to unhealthy living conditions. At least a quarter of households in Delmas access to water and sanitation services are below RDP standard.¹⁶

¹⁶ RDP standard in terms of water supply implies piped water to a dwelling or within 200m of a dwelling, whereas sanitation services in line with RDP standard is defined as toilet facilities connected to a waterborne sewerage system or at least a ventilated pit latrine.

According to the Delmas IDP (2009/10), water in the area is mostly supplied from boreholes. Numerous developments in the area, including residential and industrial developments, have placed an enormous demand on the water supply, so much so that the demand for water now exceeds the supply (the demand is estimated at 18 MI/day, while the boreholes are only able to supply 16 MI/day). Currently the Rand Water supply is used to augment the water supply to Delmas, but this in turn had a negative effect on the water supply in certain areas, e.g. Eloff Agricultural Holdings.

Two sewer plants serve the Delmas area, one within Delmas itself with a capacity of 5 MI/day and the other in Botleng with a capacity of 4 MI/day. Both these plants are over capacity, with the Delmas plant receiving up to 8 MI/day and the Botleng plant receiving approximately 6 MI/day. This has the effect that waste water is not treated properly and that discharge from these plants into rivers and streams are not on par with the standards required in the National Water Act (Act 36 of 1998). The IDP ascribes the overload of the sewerage system to the numerous new residential and industrial developments in the area.

2.11.2 Crime

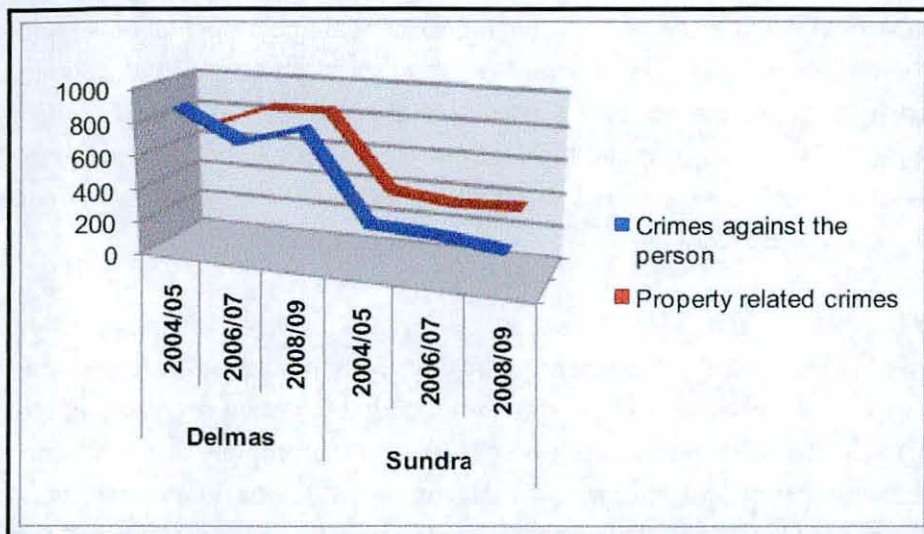
The Delmas Local Municipal area is serviced by 2 police stations, one in Delmas and one in Sundra. According to the South African Police Service's website, the ratio of police officers in the Mpumalanga province as at February 2010 was 1 police officer for every 406 citizens. On a population size of 50,452 theoretically this means that there should be approximately 124 police officers deployed throughout the area.

According to statistics supplied by the Crime Information Management Services of the South African Police Service¹⁷, there was a steady decline in the crime rate of the area (measured against the Delmas and Sundra police stations' number of crimes reported for the years 2004/05, 2006/07 and 2008/09). For the purposes of this scoping study only crimes against the person (murder, sexual crimes, attempted murder, assault with grievance bodily harm, common assault, armed robbery and common robbery) and property-related crimes (burglary and theft) were considered.

Figure 3.8 below provides an overview of the baseline profile on crime in the project area. Although it appears as if crime is on the decline in both areas, in general Delmas had almost double the crime rate than neighbouring Sundra. During the period under review a total of 2,390 crimes against the person were reported in Delmas, whereas only 754 cases were reported in Sundra. As far as property related crimes are concerned, a total of 2,375 cases were reported in Delmas and 1,071 cases in Sundra.

¹⁷ http://www.saps.gov.za/statistics/reports/crimestats/2009/crime_stats.htm

Figure 3.8: Crime profile of the study area



There is perception that crime increases in an area the moment that construction workers arrive on site. Because of this perception, occurrences of crime during the time of the project are likely to be ascribed to the construction workers. This has a mental health impact, such as fear. However, it should be noted that in most instances it is not the actual construction worker who engage in criminal activities but more likely job seekers who loiter at the site in search of employment.

2.11.3 Infrastructure and Services

According to the Delmas IDP (2009/10), the area is serviced by one hospital, three primary health care clinics and three mobile clinics, of which only one is operational. In addition there are six private general practitioner practices and one private clinic. There are a total of 14 non-governmental organisations operating within the public health sector, but it appears as if most of these NGOs operate within the realm of HIV/AIDS care.

The Delmas Local Municipality has a Disaster Management Department whose responsibility it is to plan, prevent, respond, mitigate and rehabilitate any risks associated with significant events in the area. As part of their planning, the department has a Disaster Management Plan that is reviewed on a biannual basis. Some of the major shortcomings as identified in the IDP are a shortage in emergency response vehicles, limited emergency care products, and a shortage of trained and experienced staff. Overall the IDP has identified the following problem areas associated with the municipal area's infrastructure and services:

- A lack of proper facilities such as mobile clinics, most notably in far-lying areas;
- A shortage of properly trained medical staff, especially doctors and nurses;
- An unreliable supply of medicine;
- A lack of education and ignorance on residents' parts in terms of illnesses such as HIV/AIDS;

- A general sense of poverty increases the likelihood that people engage in risky sexual behaviour such as commercial sex work and entering into short-term sexual relationships to gain financially from such a relationship;
- Insufficient entertainment facilities forces people to entertain themselves which often ends in alcohol abuse, crime and unprotected sexual practices;
- Despite the statistics released by the South African Police Service that indicate that crime rates are on the decrease in the area, the IDP states that criminal activities is still a huge concern, especially in the case of crimes against the person (most notably rape and other sexual offences);
- Despite the presence of so many NGOs in the area, these organisations often do not have all the required resources to assist vulnerable groups and infected individuals;
- A shortage of health care facilities, most notably in far-lying rural areas; and
- The stigmatisation of certain diseases, especially HIV, which prevents people to disclose their status, inadvertently increasing the risk of spreading the disease.

So What?

- The baseline institutional and empowerment profile gives an indication of the municipal services available, the local municipalities' ability to provide for additional connections if required (e.g. removing waste from site), and the capability of the area to provide in health and other emergency services.
- This information enables the project proponent and its appointed contractors to plan ahead by ensuring that they include keys aspects such as emergency management plans in their planning process and costing.

2.12 Institutional and Empowerment Change Process

Institutional and Legal Change Processes assesses the way in which a development of this nature could change the face of service delivery in the affected area and how this change in turn could affect the quality of life of local residents.

2.12.1 Potential Impacts

Table 3.9 below provides an overview of the expected Institutional and Legal Change Processes likely to occur as well as the expected impacts that might occur as a result of the change processes taking place. These potential impacts will be assessed in detail during the Impact Assessment phase.

Table 3.9: Overview of Expected Institutional and Legal Change Processes and Potential Impacts

INSTITUTIONAL & LEGAL PROCESSES				
Summary of Baseline Profile	Change Process and Expected Impacts	Impact Category		Status
		Pre-Construction, Construction & Decommissioning	Operation & Maintenance	
The existing baseline municipal profile suggests that municipal services are inadequate in the area with many households that do not have access to basic services such as electricity, municipal refuse removal, or sanitation and water services on par with RDP standards. In particular the IDP states that water and sanitation services are a concern.	Additional demand on municipal services, such as water, sewerage and roads could impact on health and safety if such services are not available.	1	1	Negative
The baseline municipal profile further suggests that all households do not have equal access to municipal services – usually it is the outlying areas and informal settlements that mostly lack these services.	It is foreseen that the proposed development could enhance the equal access of households to at least some basic services such as electricity as a result of the broadening of the local network. The availability of additional services in turn can lead to economic growth.	1	1	Positive
An informal settlement was observed approximately 1km to the west of the proposed sites (closets to sites 2 and 5).	An influx of unemployed job seekers can lead to the expansion of the informal settlement. This can impact on health (as services are not provided or further taxed) and safety (an increase in crime is possible as people do not find employment and become frustrated with their living conditions).	1	1	Negative

INSTITUTIONAL & LEGAL PROCESSES

Summary of Baseline Profile	Change Process and Expected Impacts	Impact Category		Status
		Pre-Construction, Construction & Decommissioning	Operation & Maintenance	
The area appears to be lacking proper infrastructure and services. This is evident in the fact that the entire area is serviced by only one hospital, two police stations and an inadequate fire station.	The influx of job seekers might lead to an increase in opportunistic crime. The health and emergency services in the area might not be able to cope with accidents and emergencies, which will have obvious health impacts.	1	1	Negative

2.12.2 Information Requirements

To fully assess the potential impacts as a result of Institutional and Legal Change Processes, more information is needed on the following aspects:

- The risk for attitude formation against the project (social mobilisation);
- The affected municipalities' ability to sustain additional connections to the local municipal network in the event that these services are acquired from the municipalities at the construction site (and in the event that a residential construction village is utilised); and
- Whether a construction village will be used, and if so, the most likely location for such a construction village, how many workers would be housed within the construction village, and the housing conditions.

2.13 Baseline Socio-Cultural Processes

Socio-cultural processes relate to the way in which humans behave, interact and relate to each other and their environment, as well as the belief and value systems which guide these interactions.

Mpumalanga has been inhabited since earliest times, with Middle Stone Age implements being found in the province dating back some 100,000 BC. It is also believed that red ochre was mined in the area around 46,000 BC. Nguni tribes in the area forged friendships with other clans and through marriage, new clans were formed. In those early years the provincial area was characterised by warrior clans who was only concerned for their own safety and that of their cattle.

A period of strife in the early 19th century (referred to as the *Difaqane* or *The Crushing*) led to the total destruction or displacement of many of these tribes and had a profound impact on the development of the social culture of the province. Ensuing conflicts between the Boer, the British, the Ndebele and the Pedi lasted for many years, and in time was followed by the Anglo-Boer war (1899-1902), which also left its mark on the province.

Little information could be obtained on the history of Delmas itself. What is known is that locals refer to the area as Botleng, meaning "beautiful". The area is an important agricultural and milling centre. The town of Delmas was laid out on a small farm, Witklip, in 1907, from which it also obtained the name Delmas (*de le mas*), which means "of the small farm" in French. The town is mostly surrounded by farmland that produces maize, wheat, potatoes and chickens.

At the time of the study, not enough information was available to determine the level of cultural and place attachment that residents have to the area. Also, no information could be obtained on the history of the other settlements, like Botleng, in the area.

So What?

- The history of an area serves as an indication on local residents' place attachment in terms of their collective past and the value they attach to certain areas or symbols;
- People with similar cultural backgrounds tend to gather and live together in demarcated geographical areas. Outsiders can affect the cultural dynamics of such groups; and
- Sense of place goes hand in hand with place attachment, which is the sense of connectedness a person/community feels towards certain places. Place attachment may be evident at different geographic levels, i.e. site specific (e.g. a house, burial site, or tree where religious gatherings take place), area specific (e.g. a residential area), and/or physiographic specific (e.g. an attachment to the look and feel of an area). The concept of sense of place therefore attempts to integrate the character of a particular setting with the personal emotions, memories and cultural activities associated with such a setting.

2.14 Socio-Cultural Change Processes

As socio-cultural processes recount the way in which humans behave, interact, and relate to each other and their environment, socio-cultural change processes in turn looks at the way in which the proposed developments can alter the interactions and relationships within the local community.

2.14.1 Potential Impacts

Table 3.10 below provides an overview of the expected socio-cultural change processes as well as the expected impacts that might occur as a result of the change processes taking place. These potential impacts will be assessed in detail during the Impact Assessment phase.

Table 3.10: Overview of Expected Socio-Cultural Change Processes and Potential Impacts

SOCIO-CULTURAL PROCESSES				
Summary of Baseline Profile	Change Process and Expected Impacts	Impact Category		Status
		Pre-Construction, Construction & Decommissioning	Operation & Maintenance	
At the time of the study information was not available on the cultural dynamics of the local area.	It is possible that construction workers and job seekers have a different cultural background and dissimilar social practices than local residents, which can lead to the development of conflict situations that impact on community cohesion and social well-being.	1	1	Negative
At the time of the study the level of place attachment that local residents have the area was not known.	The construction and operation of the power station and associated infrastructure might affect people's relationship with their environment (their sense of place) as the presence of such infrastructure changes the landscape from unspoilt to 'spoilt'.	2 ¹⁸	n/a	Negative
The family structure and how families from the area function and the roles ascribed to each family member was not known.	Although it is not foreseen that the development per se will alter family cohesiveness and the traditional role played by families, the introduction of strangers to the area might have this affect. This can happen when social integration is hindered (through conflict) and also because migratory workers have a certain	1	1	Negative

¹⁸ Not assessed as the level of place attachment that influences sense of place was not known at the time of the study.

SOCIO-CULTURAL PROCESSES				
Summary of Baseline Profile	Change Process and Expected Impacts	Impact Category		Status
		Pre-Construction, Construction & Decommissioning	Operation & Maintenance	
	<p>legacy when it comes to establishing relationships that can increase the risk of spreading HIV and other contagious infections. Apart from the obvious health implications, HIV infection in particular also has an economic impact.</p>			

2.14.2 Information Requirements

To fully assess the potential impacts as a result of socio-cultural change processes, more information is needed on the following aspects:

- The history of the area and of the area's local residents;
- What residents value in the local area (i.e. why have they settled in the area);
- The cultural dynamics of the existing settlements and their ability to accommodate and/or integrate workers from outside their community;
- The daily activities of surrounding residents and their cultural attachment to the area; and
- Information on areas that hold a specific significance for local residents.

4. CONCLUSIONS AND RECOMMENDATIONS

This report fulfilled the objectives of the Scoping Phase, which was to identify issues and concerns of a social nature to enable a more focussed study in the Impact Assessment Phase.

At this stage, no issues emerged that can be considered as fatal flaws from a social perspective. Although there are currently no fatal flaws, the following issues are highlighted:

- At least two of the three alternative sites proposed is currently being used for agricultural purposes (mostly crop farming, but also to some extent for grazing). Agriculture plays an important economic role in the local area, although it is not the most dominant economic sector of employment.
- A number of development activity corridors and economic activity nodes are planned in the area. These corridors and nodes are mostly concentrated around major linear spatial features. Planned residential developments mostly concentrate on in-fill developments of existing residential areas, none of which are in close proximity to the proposed project sites.
- The Delmas IDP (2009/10) states that, to date, the tourism potential of the Delmas area has not been fully developed and that tourism development is one of the 'untapped areas' in Delmas. This might mean a considerable effort in future to develop the tourism market in the area, an effort which might be affected by the presence of a coal-fired power station (although this is highly dependent on the tourism niche market that will be catered for).
- The presence of the construction team and the prospect of employment might reverse the outflow of people, i.e. an influx of unemployed work seekers is expected. It is difficult to predict what the impact would be as a result of this, as it is coupled to the number of people who return to the area. However, as is the case with the more controlled influx of people due to formalised employment, the influx of unemployed work seekers can lead to economic, health, safety and well-being impacts. It can further lead to the expansion of informal settlements, which can amplify the expected impacts.
- The current world-wide emphasis that is being placed on 'cleaner' energy sources might lead to significant public opinion and increase the likelihood of social mobilisation against the project as the project proposes the more 'traditional' form of energy generation through the use of coal.
- The baseline municipal profile suggests that municipal and other services and infrastructure is inadequate. Any additional pressure on these services can have far reaching effects, e.g. the inconsistency of health and emergency services can result in help not being available when needed.
- According to the Delmas IDP (2009/10), water in the area is mostly supplied from boreholes. Numerous developments in the area, including residential and industrial

developments, have placed an enormous demand on the water supply, so much so that the demand for water now exceeds the supply (the demand is estimated at 18 Ml/day, while the boreholes are only able to supply 16 Ml/day).

- Although it is not foreseen that the development per se will alter family cohesiveness and the traditional role played by families, the introduction of strangers to the area might have this affect. This can happen when social integration is hindered (through conflict) and also because migratory workers have a certain legacy when it comes to establishing relationships that can increase the risk of spreading HIV and other contagious infections. Apart from the obvious health implications, HIV infection in particular also has an economic impact.

Initial indications are that the local negative economic impact will not be extensive due to the limited activity occurring on the properties and due to current ownership arrangements. Economic benefits will most likely be regional and national in nature due to the location of the project close to Gauteng.

Most of the expected change processes and potential impacts that was identified during the course of the study will result in category 1 impacts, i.e. these impacts are expected to occur irrespective of the site selected in the end. Where category 2 impacts have been identified, the difference between the various alternatives is marginal, i.e. indirect social impacts will be experienced irrespective of which site is selected in the end. However, it at this stages it appears as if site 5 might yield the least amount of direct social impacts and therefore this site has been nominated as a preliminary preferred site from a social and economic perspective.

Based on the findings of the scoping phase, it is recommended that a full SIA be undertaken during the next phase to test the assumptions made in this scoping report in respect of issues such as the expected land use change, temporary influx of people to the area and the likelihood of the project impacting on sense of place. The proposed studies to be undertaken as part of the SIA during the impact assessment phase is outlined in the following section.

The success of the economic study will depend on the accuracy and completeness of 4 sets of data (detailed below). It is therefore recommended that the economic team is contacted if there is any delay or trouble in sourcing the information. The data sets are:

- The construction value and employment opportunities during construction in person years;
- The likely annual revenues and annual employment opportunities during operation;
- The likely bill of goods for the construction phase and the main suppliers for the project; and
- Local supply opportunities investigated.

5. PLAN OF STUDY FOR THE IMPACT ASSESSMENT PHASE

This section aims to address the following objective:

- Formulate recommendations regarding studies that are more detailed for the Impact Assessment Phase, and describe how these studies will be executed.

Information Requirements	Proposed Methodology
GEOGRAPHICAL CHANGE PROCESSES	
<ol style="list-style-type: none"> 1. The agricultural potential of the 3 sites; 2. Detail on landownership and/or lease agreements on the 3 alternative sites; 3. The size and number of expected construction and operational vehicles as well as which route(s) will be used to gain access to the various construction sites; 4. Detail on planned developments within a 5km radius of the site alternatives; and 5. The tourism profile of the local area. 	<ol style="list-style-type: none"> 1. Obtain information from the agricultural potential specialist study for inclusion in the assessment. 2. Obtain landowner detail from the public participation consultant. Consult with these landowners via the public participation focus group meetings. 3. Obtain information from Kuyasa on the size and number of construction and operational vehicles and the frequency with which these vehicles will pass through the area. 4. Consult with the local municipality via the public participation focus group meetings to determine where future developments will take place. 5. Conduct interviews with identified tourism offerings in the area.
DEMOGRAPHICAL CHANGE PROCESSES	
<ol style="list-style-type: none"> 1. The composition of the construction workforces in terms of size, skills levels, and origin; 2. The composition of the operational workforce and their activities; 3. The number of local employment opportunities that could influence the number of people entering the area; and 4. A baseline profile of the households within a 5km radius from the various sites. 	<ol style="list-style-type: none"> 1. Obtain information on the construction workforce in terms of size, skills level and origin from Kuyasa. 2. Obtain information from Kuyasa on the planned size of the operational workforce and their activities. 3. Obtain information from Kuyasa on the potential for local employment. 4. Consult with affected landowners and local residents via public participation focus group meetings that will be held as part of the EIA process.

Information Requirements	Proposed Methodology
ECONOMICAL CHANGE PROCESSES	
<ol style="list-style-type: none"> 1. The total size of affected farm/property portions leased or owned and used for cultivation, in order to determine the size of the possible agricultural production loss; 2. The types of activities that are pursued on any given (affected) property; 3. The income derived from these activities; 4. Capital investments that have been made on (affected) properties with the aim to generate income; 5. The number of people that are employed by affected farmers or other businesses; 6. The employment opportunities that will be created, both formal and informal in nature and the likely local percentage of this; 7. Likely local supply opportunities which may increase the level of local beneficiation; and 8. Total construction value of the project and likely annual revenues during operation. 	<ol style="list-style-type: none"> 1-5. Consult with affected landowners via the public participation focus group meetings. 6. Obtain information from Eskom on the potential for local employment. 7. Conduct a desktop study to determine the likely local supply opportunities and consult with the project proponent on the likelihood using such services. 8. Obtain information from Kuyasa on the estimated construction value of the project and likely annual revenues during operation.
INSTITUTIONAL AND LEGAL CHANGE PROCESSES	
<ol style="list-style-type: none"> 1. The risk for attitude formation against the project (social mobilisation); 2. The affected municipalities' ability to sustain additional connections to the local municipal network in the event that these services are acquired from the municipalities at the construction site (and in the event that a residential construction village is utilised); and 3. Whether a construction village will be used, and if so, the most likely location for such a construction village, how many workers would be housed within the construction village, and the housing conditions. 	<ol style="list-style-type: none"> 1. Assess the issues and response register. Consult with interest groups via the public participation focus group meetings. 2. Consult with the local municipality via the public participation focus group meetings. 3. Obtain information from Kuyasa to determine the likelihood for the use of a residential construction village and how the location for such a village is determined.
SOCIO-CULTURAL CHANGE PROCESSES	

Information Requirements	Proposed Methodology
<ol style="list-style-type: none"> 1. The history of the area and of the area's local residents; 2. What residents value in the local area (i.e. why have they settled in the area); 3. The cultural dynamics of the existing settlements and their ability to accommodate and/or integrate workers from outside their community; 4. The daily activities of surrounding residents and their cultural attachment to the area; and 5. Information on areas that hold a specific significance for local residents. 	<ol style="list-style-type: none"> 1. Undertake a desktop study to expand the information on the history of the local area. 2. Consult with local residents via the public participation focus group meetings. 3-5. Assess information obtained from focus group meetings.

6. SOURCES CONSULTED

6.1 Municipal Documentation

- Delmas Local Municipality Integrated Development Plan 2009/10.

6.2 Project Documentation

- Project generated maps.
- Project Background Information Document (unpublished first draft).

6.3 Other Documentation

- Slootweg R, Vanclay F, van Schooten M. Function evaluation as a framework for the integration of social and environmental impact assessment. Impact Assess Project Appraisal 2001; 19(1):19–28.
- Statistics South Africa. Community Survey 2007: Key Municipal Data. Report No: 03-01-22 (2007).
- Vanclay, F. 2002. Environmental Impact Assessment Review 22:183–211.

6.4 Websites

- Municipal Demarcation Board (<http://www.demarcation.org.za>) - accessed May 2010.
- Community Survey Interactive Data (http://www.statssa.gov.za/community_new/content.asp?link=interactivedata.asp) – accessed May 2010.
- South African Police Service (www.saps.gov.za) – accessed May 2010.
- Mpumalanga Tourism and Parks Agency (www.mpumalanga.com) – accessed May 2010.
- Wikipedia (www.wikipedia.org/wiki/Land_use.html)
- www.soil.ncsu.edu/publications/BMPs/glossary.html

KIPOWER (PTY) LTD

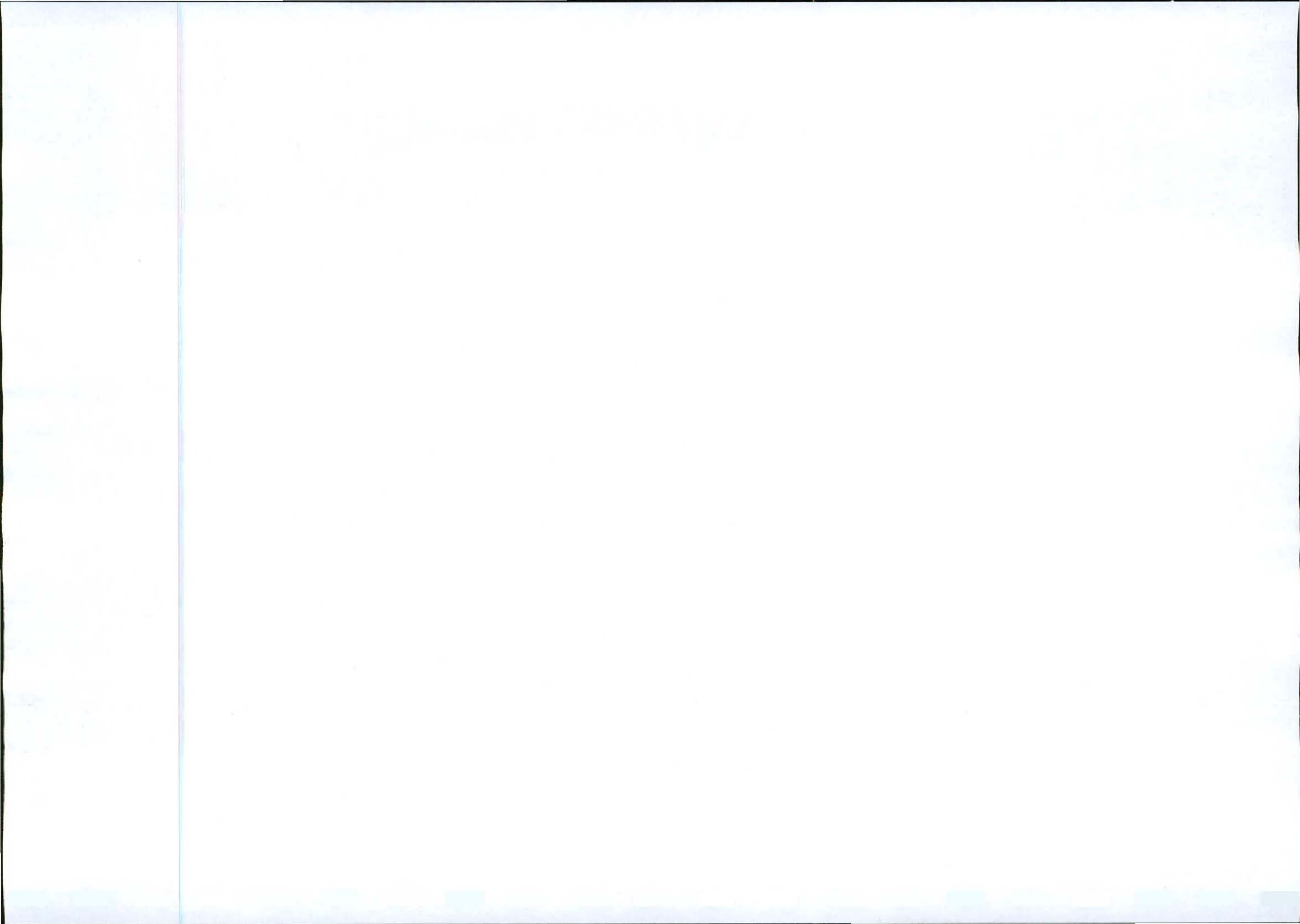
ENVIRONMENTAL IMPACT ASSESSMENT FOR THE CONSTRUCTION OF A 600MW
INDEPENDENT POWER PLANT AND ASSOCIATED INFRASTRUCTURE FOR KIPOWER
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DRAFT SCOPING REPORT

Report: JW058/10/C182- Rev A

Appendix D

PUBLIC PARTICIPATION DOCUMENTS

1. Advertisements
2. Site notices
3. Land owner notification and announcement BID and letters
4. IAP register
5. Correspondence to IAPs and landowners
6. Landowner meeting attendance register
7. Comments and response report
8. Comments received from IAPs



Adverts for the announcement phase were placed in the following newspapers:

PUBLICATION	INSERTION DATE
Springs Advertiser	20 July 2011
Streeknuus	20 July 2011
Beeld	21 July 2011

APPLICATIONS FOR VARIOUS ENVIRONMENTAL AUTHORISATIONS

CONSTRUCTION OF A 600 MW INDEPENDENT POWER PLANT AND ASSOCIATED INFRASTRUCTURE FOR KIPower (PTY) LTD NEAR DELMAS IN MPUMALANGA

(DEA Ref No: 12/12/20/2333, NEAS Ref No: DEA/EIA/0003364/2011)

Notice is hereby given of KIPower (Pty) Ltd's intent to carry out the above project that requires authorisation in terms of the following Acts:

- National Environmental Management Act (Act No 107 of 1998) and the new EIA Regulations (Government Notice R.543 - 546) published in June 2010.
- Waste Management License in terms of the National Environmental Management: Waste Act (Act 59 of 2008) and relevant regulations and notices.
- Water Use License in terms of the National Water Act (Act 36 of 1998) and relevant regulations and notices.
- Emissions License in terms of the National Environmental Management: Air Quality Act (Act No 39 of 2004) and relevant regulations and notices.
- Provincial and municipal authorisations for rezoning of land, building permits and occupational health and safety regulations and by-laws.

PUBLIC COMMENT ENCOURAGED

You are requested to register as an Interested and/or Affected Party (I&AP) and are invited to participate by providing comments and raising any issues of concern that you may have.

Please note that all future notices regarding the authorisation processes will be made to registered I&APs directly. To register as an I&AP, and to receive a copy of the Background Information Document introducing the project scope and authorisation processes, please contact:

André Joubert
Zitholele Consulting (Pty) Ltd
P O Box 6002, Halfway House, 1685
Tel: (011) 207 2077/ 2075
Fax: 086 676 9950
email: andrej@zitholele.co.za

Streek News : 22 July 2011

APPLICATIONS FOR VARIOUS ENVIRONMENTAL AUTHORISATIONS

CONSTRUCTION OF A 600 MW INDEPENDENT POWER PLANT AND ASSOCIATED INFRASTRUCTURE FOR KIPower (PTY) LTD NEAR DELMAS IN MPUMALANGA

(DEA Ref No: 12/12/20/2333; NEAS Ref No: DEA/EIA.0000364/2011)

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P O Box 6002, Halfway House, 1685
Tel: (011) 207 2077/ 2075
Fax: 086 676 9950
email: andrej@zitholele.co.za

THE SPRINGS ADVERTISER, 20 July 2011

Adverts for the scoping phase were placed in the following newspapers:

PUBLICATION	INSERTION DATE
Springs Advertiser	21 March 2012
Streeknuus	21 March 2012

ENVIRONMENTAL PROCESSES
DEA Ref No.: 12/12/20/2333
NEAS Ref No.: DEA/EIA/0000364/2011

**Proposed 600 MW independent power
plant and associated infrastructure
for KiPower near Delmas**

PUBLIC REVIEW OF DRAFT SCOPING REPORT

The Draft Scoping Report will be available for public review
from **22 March to 11 May 2012**. The Report can be
reviewed at the following public places or on the internet at
www.zitholele.co.za/kipower:

Contact	Location	Contact Tel
Lydia Mehlape	Delmas Public Library, Delmas	Tel: 013 665 2425
Reception	Delmas Coal	Tel: 013 665 7000
Chrisan Nienaber	Jones & Wagener, 59 Bevan Road, Bryanston	Tel: 011 519 0220
André Joubert	Zitholele Consulting, Matuka Close, Halfway Gardens	Tel: 011 207 2077

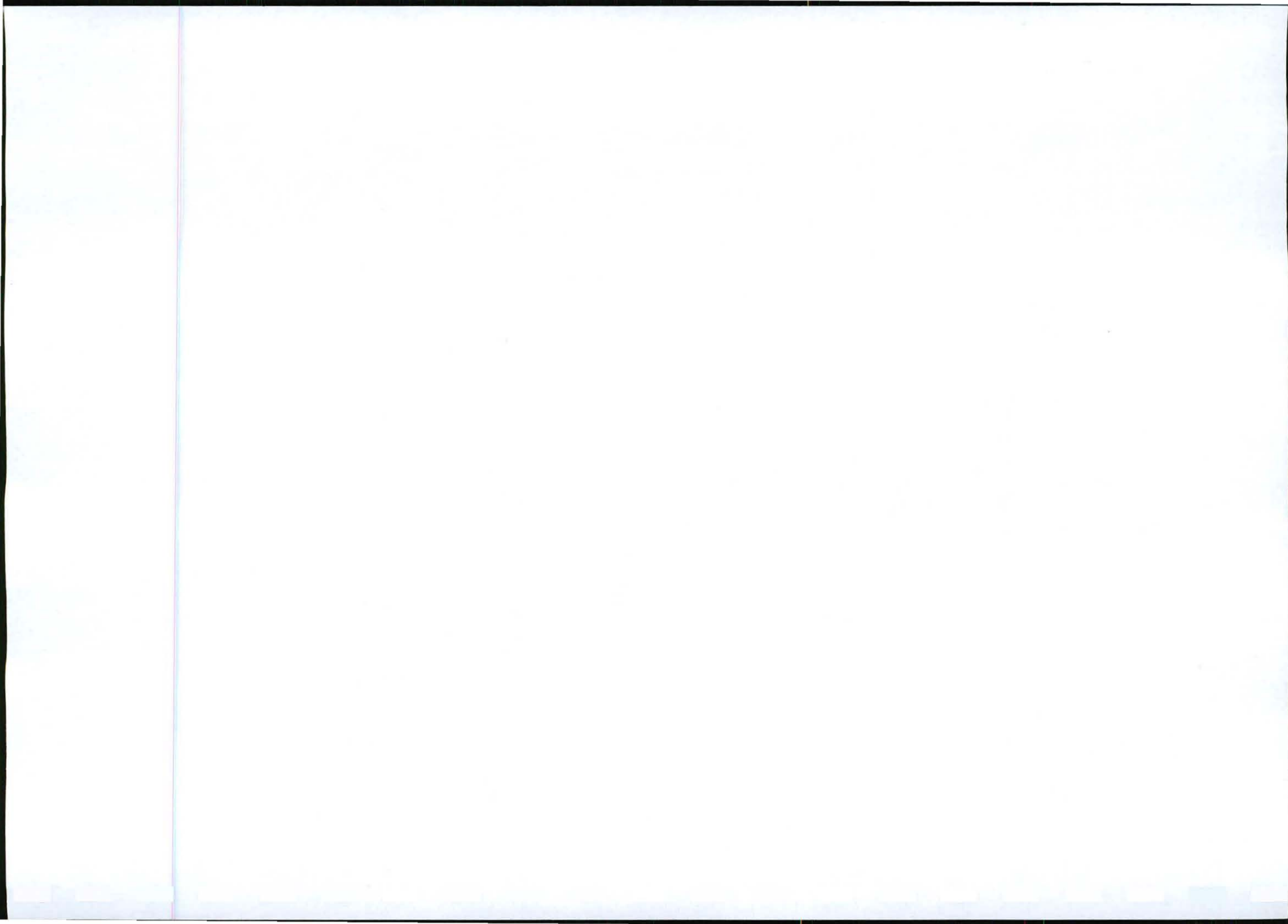
PUBLIC MEETING and OPEN HOUSE

You are invited to attend an Open House from **16:00 to 18:00** or a public meeting from **18:00 to 19:30 on 19 April 2012** to review and discuss the Draft Scoping Report.

**FOR A COPY OF THE DRAFT SCOPING REPORT
AND/OR TO REGISTER FOR THE MEETING, PLEASE
CONTACT:**

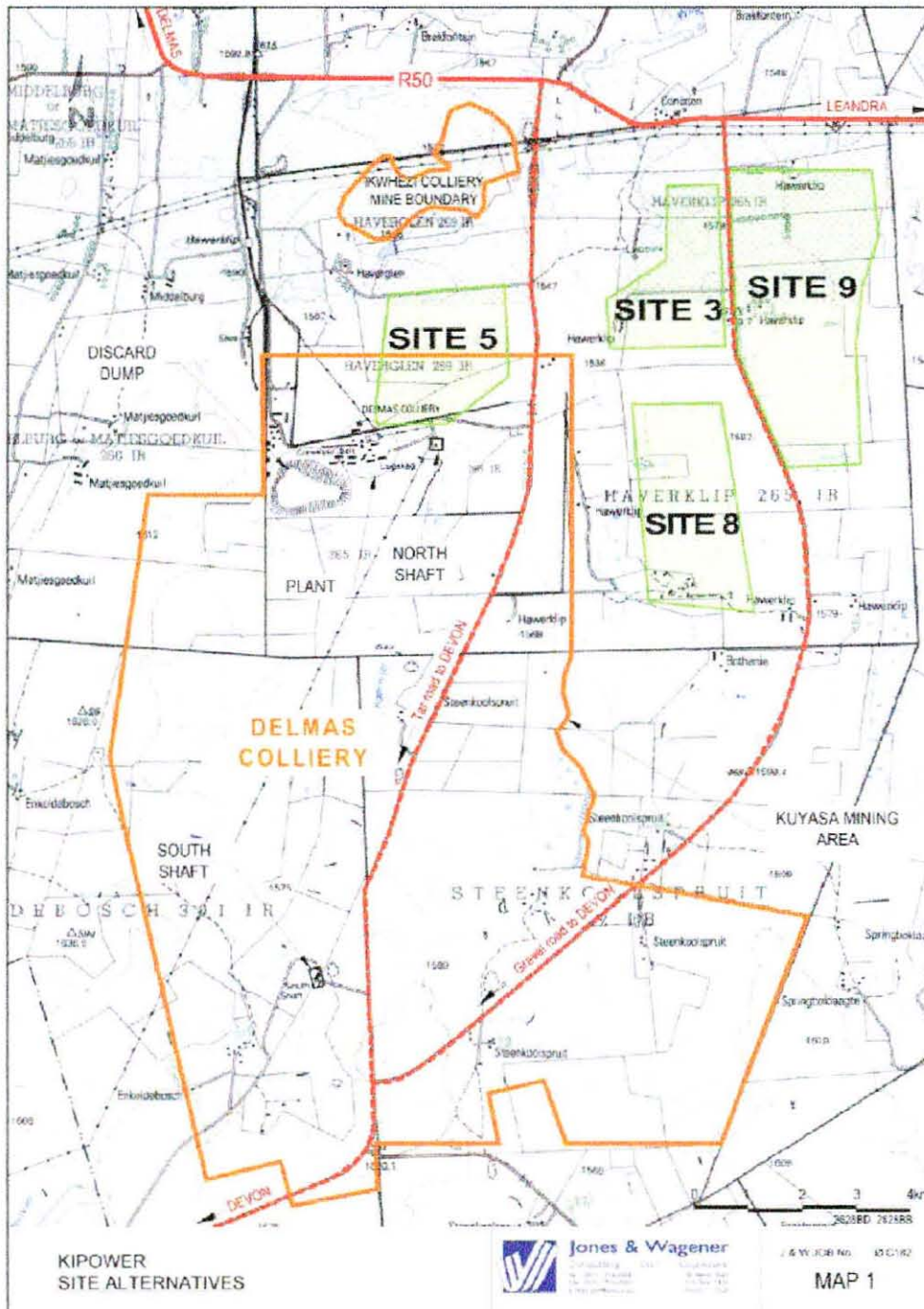
André Joubert / Pat Mnqokoyi
Zitholele Consulting, P O Box 6002,
Halfway House, 1685
Tel: (011) 207 2077/2074, Fax: 086-676-9950
Email: andrej@zitholele.co.za or patiswam@zitholele.co.za





NOTICE OF APPLICATIONS FOR VARIOUS ENVIRONMENTAL AUTHORISATIONS FOR THE CONSTRUCTION OF A 600 MW INDEPENDENT POWER PLANT AND ASSOCIATED INFRASTRUCTURE FOR KIPOWER (PTY) LTD NEAR DELMAS IN MPUMALANGA

(DEA Ref No.: 12/12/20/2333; NEAS Ref No.: DEA/EIA/0000364/2011)



Notice is hereby given of KiPower Pty (Ltd)'s intent to carry out the above project that requires authorisation in terms of the following Acts:

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- Emissions License in terms of the National Environmental Management: Air Quality Act (Act No. 39 of 2004) and relevant regulations and notices.
- Provincial and municipal authorisations for rezoning of land, building permits and occupational health and safety regulations and by-laws.

Jones & Wagener has been appointed as the independent Environmental Assessment Practitioner responsible for the EIA and other environmental processes.

Please note that all future notices regarding the authorisation processes will be made to registered Interested and Affected Parties directly.



PUBLIC COMMENT ENCOURAGED




Interested and Affected Parties (I&APs) are invited to participate by providing comments and raising any issues of concern they may have




To register as an I&AP, and to receive a copy of the Background Information Document, please contact:
 André Joubert of Zitholele Consulting, P O Box 6002, Halfway House, 1685
 Tel: (011) 207 2077 Fax: 086-676-9950
 Email: andrej@zitholele.co.za








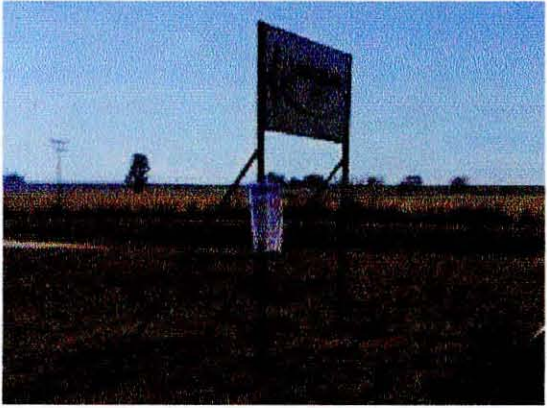
**ENVIRONMENTAL IMPACT ASSESSMENT FOR CONSTRUCTION OF A 600 MW
INDEPENDENT POWER PLANT AND ASSOCIATED INFRASTRUCTURE FOR
KIPOWER (PTY) LTD NEAR DELMAS IN MPUMALANGA**

Table 1: Indicates the location of site notices placed on 20 July 2011

Item	Description of the location of notice	Picture/photo
1	Turn off to Brakfontein from R50	
2	Turn off to Steenkoolspruit from R50	
3	Turn off to Devon on the gravel road	

Item	Description of the location of notice	Picture/photo
4	Turn off to Eendrag	
5	Kuyasa Mining Delmas Colliery – South Shaft	
6	Just before the bridge over the Wilge River	

Item	Description of the location of notice	Picture/photo
7	On the R50 between Delmas and Leandra	
8	Turn off to Agri Silos	
9	On the way to Hawerklip Silos	
10	On the way to Matjiesgoedkuil	

Item	Description of the location of notice	Picture/photo
11	On farmer fence of the R50, to the west of Kuyasa Mining.	 A photograph showing a white notice pinned to a fence in a rural field. The notice is a rectangular piece of paper with some illegible text. The fence is made of wooden posts and wire. In the background, there are trees and a clear blue sky.
12	On the R50	 A photograph showing a notice pinned to a fence on a road. The notice is a rectangular piece of paper with some illegible text. The fence is made of wooden posts and wire. In the background, there are trees and a clear blue sky.

ENVIRONMENTAL IMPACT ASSESSMENT FOR THE CONSTRUCTION OF A 600 MW INDEPENDENT POWER PLANT AND ASSOCIATED INFRASTRUCTURE FOR KIPOWER (PTY) LTD NEAR DELMAS IN MPUMALANGA

Site visit on 21 July 2011 to hand out background information documents

