

EXECUTIVE SUMMARY

INTRODUCTION

Strategic Environmental Focus (Pty) Ltd (SEF), as independent consultants, was appointed by Powerhouse Consortium (Pty) Ltd, West Rand Regional Professional Team (RPT) on behalf of the Randfontein Local Municipality in association with the Gauteng Department of Housing (GDoH) to undertake the appropriate environmental process for the proposed development of township Middelvlei situated on various land portions of the farm Middelvlei 255-IQ near Randfontein, Gauteng. The process that was followed complies with Sections 21 and 26 of the Environment Conservation Act, 1989 (Act No.73 of 1989). The purpose of this study was to assess the impact of the proposed development on the surrounding environment.

GENERAL PROJECT DESCRIPTION

Randfontein Local Municipality (RLM) where the study area falls is located within the areas of jurisdiction of the West Rand District Municipality (WRDM). It is bordered by the Merafong, Mogale City and Westonaria Local Municipalities as well as the City of Johannesburg Metropolitan Municipality (refer to Figure 1). This municipality has a huge housing backlog, which is estimated at the average of 15 000 units. In an attempt to address the housing backlog, the Randfontein Local Municipality (RLM) in association with the Gauteng Department of Housing (GDoH) has identified the potential for the provision of essential services at Middelvlei Farm 255-IQ. The aim is to develop affordable housing development to alleviate the shortage of formal housing in the Randfontein area. The Municipality has identified the Zenzele informal settlement, as the key beneficiary community for this proposed development. Other existing informal settlements within the Randfontein area will also be catered for. Relocation of the existing informal settlements is of priority as some of these communities are currently situated on dangerously unstable dolomite.

The proposed township will consist of approximately 5 172 stands, of which 5 000 at an average size of 250 m² will be used solely for residential and the remaining will be for other supportive land uses such as schools, crèches, and public open space. The total size of the proposed development is approximately 334,43 hectares.

The underlying philosophy advocated in this respect is one of a comprehensive and sustainable residential environment satisfying the housing and other needs of the local community. In addition, RLM as the responsible municipality in this region is mandated to provide services to its community in order to meet social needs.

RISKS AND KEY ISSUES

Risks and key issues were identified and addressed in consultation with the Interested and Affected Parties, through an internal process based on similar developments, an environmental impact assessment and a site visit.

The risks and key issues identified include:

- Contamination of ground and surface water;
- Impacts on air quality;
- Increased surface water runoff;
- Increased erosion;
- Floral destruction;
- Faunal displacement and destruction;
- Visual intrusion;
- Traffic impacts;
- Security risks;
- Increased ambient noise levels; and
- Light pollution.

Each issue was assessed and mitigatory measures proposed such that impacts were minimised or negated.

IMPACT EVALUATION

Each issue identified was evaluated in terms of the most important parameters applicable to environmental management. These include the nature, extent, duration, intensity, probability and significance of the possible impact on the environment.

Negative impacts include:

- *Contamination of groundwater* as a result of the deposition of contaminants during the construction phase and the possibility of sewage leaks during operational phase. Mitigation measures reduce the significance to "low".
- *Contamination of surface water* as a result of siltation caused by increased erosion, during the construction phase and improper discharge of waste or contaminated water into the storm water management system during the operational phase. Implementation of mitigation measures reduces the significance rating to "low".
- *Contamination of surface water* as a result of the deposition of contaminants into the watercourse. The successful implementation of the recommended mitigation measures is predicted to reduce the significance to "low".

- *Increased erosion and surface water runoff* as a result of vegetation clearance, the creation of preferred drainage lines and the disturbance of soil structure during the construction phase. Implementation of mitigation measures reduces the significance rating to “low”.
- *Noise impact* from operation of construction vehicles, and construction activities. Mitigation measures including a restriction on the times within which construction activities may take place will reduce the significance to “low”.
- *Faunal destruction and displacement* as a result of construction activities. The effective implementation of the proposed mitigation measures should reduce the significance to “low”.
- *Traffic Impacts* as a result of construction vehicles accessing the site. As a number of vehicles will be delivering construction materials on the study area and the anticipated increase of traffic on the road network during operational, it is expected that this impact will have “medium” significance. Upgrades of the existing road network can reduce this impact to low significance.
- *Aesthetic impacts* as a result of construction activities especially to adjacent properties to the study area. But the impact is considered to be of medium significance.
- *Loss of high potential agricultural land* as a result of establishing the proposed development. This impact is considered to be of medium to low.

Positive impacts include:

- *Job provision to the local people and contractors* as a result of the construction activities.
- *Alleviate and address the shortage of affordable housing developments in the Randfontein area.*
- *Improve living conditions to the people who are currently residing at informal settlements.*
- *Enable the municipality to achieve the intended goal of integrating different race groups within its jurisdiction through establishing a residential development that cater for different types of income levels.*
- *Upgrade and improve existing municipal infrastructures (i.e. water, sewerage, storm water, roads network, etc.).*

RECOMMENDED MANAGEMENT ACTIONS

A variety of mitigation measures have been identified that will serve to mitigate the scale, intensity, duration or significance of the impacts. These include guidelines to be applied during the construction and operational phases of the project.

CONCLUSIONS

No aspect of the physical or biological environment having special conservation, scientific or educational value must be damaged or destroyed during the construction and operational phases of the proposed development. These goals can be achieved if the mitigatory measures outlined in this document are applied to ameliorate negative impacts.

By implementing the mitigation measures to negate any negative impacts and also to preserve land with high agricultural potential, SEF considers Option 2 (i.e. Figure 8B, site layout plan), the development option, as the most suitable.