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## FINAL SCOPING REPORT

**Proposed Fort West Phase 2 Development on Potion 2 of the farm Fort 646 JR;  
Potion 3 of the farm Fort 646 JR and ;  
Remaining Extent of the Farm Fort 646 JR**



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## Project Background

The Department of Housings “Breaking New Ground” (BNG) policy, implemented in 2004 aimed to radically change the *status quo* of housing provision in South Africa. Social Housing needs in South Africa is to be met by Low Cost Housing Developments, such as the proposed mixed use development at Fort West. The government’s objectives of providing housing for all are an ongoing commitment and development requirement for the poor to middle income families. Low income housing developments must be formulated holistically, by providing sufficient social amenities such as schools, crèche’s, community clinics, proper water & sanitary requirements, etc. The proposed Fort West development will be a self sustainable government housing “Urban Village”

The Department of Local Government and Housing propose to continue with Phase 2 of the current Fort West Mixed use Development. The proposed site for the For West Housing Development is located next to vacant land adjacent to residential development and is a continuation of Phase 1 Fort West Development.

The Scoping Report was accepted for Phase 1 of the development from Gauteng Department of Agriculture and Rural Development (GDARD) reference number **Gaut 002110-111E0103**

**Gaut : 002/11 12 E0165** is the GDARD reference number for Phase 2 of the proposed development Please refer to **Appendix E**

The development proposed is aimed to address the need for formal housing within the municipal area. In order to provide housing closer to areas of job opportunities, this development is off an essential need to address the demanding problem of informal housing.

The current site is unoccupied and standing vacant, however there is a small settlement, the Davidsonville Settlement, situated on the ridge. This site has been subject to various anthropogenic influences due to the surrounding land use and there is currently an existing medium cost residential development to the South of this site and therefore the planned Phase 2 of Fort West Development will be in line with the surrounding land use.



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Fig 1 Property and Location Map



## 1. INTRODUCTION

The Department of Local Government and Housing appointed Scip Engineering Group Pty Ltd (Scip) as the project managers for the proposed Phase 2 Fort West Development.

The project manager / applicant — **Scip** - has commissioned a independent Environmental Assessment Practitioner (EAP) ACE Environmental Solutions (“ACE”) to undertake an Environmental Impact Assessment (EIA) process for the proposed Fort West Phase 2 Development. This falls within the City of Tshwane (CoT) District Municipality, Tshwane, Gauteng Province and is situated North of the Lotus Gardens and North of the old N4 Highway.

ACE is to conduct an EIA in terms of the National Environmental Management Act (NEMA) (Act 107 of 1998), sections 24 and 24D of NEMA, as read with the EIA regulations of GNR 543.

Environmental studies are required to address the potential impacts associated with the proposed project, and to provide an assessment of the project in terms of the biophysical, social and economic environments. It is this assessment, which aids both the environmental authorities GDARD and the applicant *in* making decisions regarding the future of the project.

An important phase of an EIA is *Scoping*. This is the phase during which issues and concerns are identified in order to focus the specialist studies and to provide a framework within which the EIA assessment is to be undertaken. In keeping with environmental legislation, it is the responsibility of the EAP to ensure that the public is provided the opportunity to participate meaningfully in the environmental investigation process. This includes identification of issues and review of reports. Accordingly, interested and affected parties (I&APs) are invited to review this Draft Scoping Report to verify that their contributions are captured and correctly understood. Issues raised by I&APs have been used, together with issues identified by the professional team, to define the terms of reference for the Specialist Studies to be undertaken in the detailed Impact Assessment Phase.

The public will also have the opportunity to review the Draft Environmental Impact Assessment Report and any Specialist Studies Reports. The comments received during the Draft Scoping review period will be incorporated into the Final Scoping Report, and submitted to the GDARD who will consider the scope to be covered by the Specialist Studies, after which these studies will proceed as part of the detailed Impact Assessment Phase and feed into the Environmental Management Plan (EMP).



## Purpose of this Final Scoping Report

The main aim of the *Scoping Phase* of the project is to identify and define the issues that need to be addressed in the Impact Assessment Phase. Input from the technical team, the authorities, the community and their representatives, specialists and registered Interested and Affected Parties (I&APs) are considered and integrated in defining these key issues.

This Final Scoping Report will serve as a background information document to all I&AP's. Interested and Affected Parties were requested to please submit their comments on the draft report in writing to ACE no later than **24 January 2012**.

The Scoping Report is a synthesis of findings identified during the scoping process and includes:

- Desktop analysis of municipal planning frameworks;
- Desktop analysis of available physical and biophysical information relevant to the study area;
- Site inspections conducted by ACE;
- Information assimilated during the public participation process, and
- Consideration of information collected during the Phase 1 Scoping Process

From this information it is possible to identify expected issues and impacts (positive and negative) that require further investigation by specialists. The specialists' reports form *the basis of the second phase of the process*, the Environmental Impact Assessment Report which critically evaluates the proposed development from an environmental (both biophysical and socio-economic) point of view and suggests ways in which negative impacts can be mitigated and positive impacts can be enhanced.

### Notification of key stakeholders and I&AP's

The Scoping Phase is the phase during which Interested and Affected Parties (I&APs) are informed of the proposed development and actively engaged in the process. I&APs are engaged in discussion and given opportunity to comment to ensure that as much information as possible is gathered and concerns are addressed as far as is reasonably possible at this stage of the process.

Key stakeholders are identified and notified of the proposed project and the ways in which they can be involved. These stakeholders include :

- Local and regional authorities
- Ward councillors
- Community Representatives
- Non-governmental Organisations (NGOs) and Community Based Organisations (CBOs)
- Landowners adjacent to and within 100m of the proposed development boundary
- Public consultation is a legal requirement and takes place at all stages of the EIA process.





The scoping report has been produced in accordance with the requirements as stipulated in Section 28 of the EIA regulations (GNR 543), which clearly outlines the content of a scoping report, and Sections 54 - 57 which outline the activities necessary for a successful Public Participation Process (PPP).

This Draft Scoping Report was made available for public review for a period of 40 days, from 29 November 2011 to 24 January 2012. A Copy of this report has been made available at the Atteridgeville Community Libraries. The Draft Scoping Report can be emailed to IAP's on request. After review of the Draft/Final Scoping Report, additional comments will be included into the report, and finalised. The Final Scoping Report will be submitted to the approving authority (GDARD) for review and decision making. Issues raised help to form the basis of specialist studies to be conducted in the EIA phase.

The Scoping Report guiding framework:

(1) (a) Details of –

- (i) The EAP who prepared the report, and
- (ii) The expertise of the EAP to carry out scoping procedures.

(b) A description of the proposed activity and of any feasible and reasonable alternatives that have been identified;

(c) A description of the property on which the activity is to be undertaken and the location of the activity on the property, or if it is –

- (i) A linear activity, a description of the route of the activity, or
- (ii) An ocean-based activity, the coordinates where the activity is to be undertaken.

(d) A description of the environment that may be affected by the activity and the manner in which the physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity;

(e) An identification of all legislation and guidelines that have been considered in the preparation of the scoping report;

(f) A description of environmental issues and potential impacts, including cumulative impacts, that have been identified;

(g) Information on the methodology that will be adopted in assessing the potential impacts that have been identified, including any specialist studies or specialised processes that will be undertaken;

(h) Details of the public participation process conducted in terms of regulation 28(a), including:

- (i) The steps that were taken to notify potentially interested and affected parties of the application;
- (ii) Proof that notice boards, advertisements and notices notifying potentially interested and affected parties of the application have been displayed, placed or given,

(iii) A list of all persons or organisations that were identified and registered in terms of regulation 57 as interested and affected parties in relation to the application, and

(iv) A summary of the issues raised by interested and affected parties, the date of receipt of and the response of the EAP to those issues.



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*(i) A plan of study for environmental impact assessment which sets out the proposed approach to the environmental impact assessment of the application, which must include –*

- (i) A description of the tasks that will be undertaken as part of the environmental impact assessment process, including any specialist reports or specialised processes, and the manner in which such tasks will be undertaken;*
- (ii) An indication of the stages at which the competent authority will be consulted;*
- (iii) A description of the proposed method of assessing the environmental issues and alternatives, including the option of not proceeding with the activity, and*
- (iv) Particulars of the public participation process that will be conducted during the environmental impact assessment process.*

*(j) Any specific information required by the competent authority.*

*(2) In addition, a scoping report must take into account any guidelines applicable to the kind of activity which is the subject of the application.*

## **1.2 Final Scoping Report**

This Final Scoping Report (FSR) signifies the end of the Scoping Study undertaken for the proposed Palm Ridge Development. This report presents the findings of the Scoping Study. Comments received on the Draft Scoping Report (DSR), which was made available for comment. These comments have been collated into a second Comments and Responses Report. The compilation of this FSR has been duly informed by comments received on the DSR and responses provided by the EIA and project teams. This FSR will be submitted to the GDARD for acceptance before commencing with the next phase of the Environmental Impact Assessment (EIA), which comprises Specialist Studies and the Integration and Evaluation stage.

## **1.3 Comment on the FSR**

Public involvement in this Scoping Study has been an important component of this Scoping Study. Should the project move into the next phase of the EIA there would be further opportunity for public consultation. Copies of the full report have been lodged in the Atteridgeville Public Library for a 21-day public review period after which the FSR is submitted to GDARD.

Any comments on the FSR should be forwarded directly to GDARD and copied to ACE at the address, telephone/fax numbers or e-mail address shown below by no later than the **16 February 2012**.

## **1.4 Details of the Environmental Assessment Practitioner**

Ace Environmental Solutions is a consulting company providing specialist environmental consulting services to public and private sector clients. ACE provides a comprehensive range of multidisciplinary consultancy services and tailors individual support packages for project planning, design, management, integration and supervision, including environmental assessment and management.



Collectively the Consultant can demonstrate relevant Local as well as international experience, including operational experience in the Gulf, Key attributes of the Consultant include relevant environmental management EIA and audit expertise and in the key areas of land management.

ACE has the capacity to plan and implement the full range of environmental studies. This includes: environmental impact assessments for mining, oil and gas, industrial, marine, and urban development projects; environmental management and monitoring programs; sewage and wastewater treatment; environmental audits; packaging, transport and disposal of intractable and hazardous wastes; assessments and remediation of contaminated sites; land use capability assessments. In addition, the company has extensive experience with the development of public policy, legislation and in managing community relations surrounding environmental issues.

ACE as the nominated environmental consultant firm, will assume direct responsibility for the satisfactory delivery of the environmental outcomes of the project. All elements of the implementation will be undertaken by Ace Environmental Solutions staff experience, building on the consultant's sensitivity to the issues underlying cultural and social needs in the project area, together with the ability to design and closely manage an output based project will minimise the risks associated with this project.

**Gerhardus Uys** will perform the function of Principle Consultant and the Project Manager. Gerhardus Uys holds a Science degree in Environmental Management with 10 years comprehensive experience in Environmental Management both in South Africa and Middle East. Experience included, implementation of standards like ISO 14001 to help organizations minimize how their operations negatively affect the environment (cause adverse changes to air, water, or land), to ensure compliance with applicable laws, regulations, and other environmentally oriented requirements, to continually improve on the above. Project fields include various Industrial projects, Oil and Gas industries, Opencast Diamond Mining, Sensitive Coastal Areas, Land Rehabilitation, and Tourism Development projects

**Monique Uys** will perform the function of assistant project Manager and Environmental consultant. Monique holds a BA Degree with specialisation in Environmental Management. Monique has 10 years Business Management with 4 years Environmental Management Experience included, in helping organizations minimize how their operations negatively affect the environment (cause adverse changes to air, water, or land), to ensure compliance with applicable laws, regulations, and other environmentally oriented requirements, to continually improve on the above. Monique is responsible for Projects Coordinator and Business Development, Continuous monthly environmental monitoring and report writing. Client's liaison regarding all aspects of environmental management plans and ISO 14001 implementation.



## 2. DESCRIPTION OF THE PROPOSED ACTIVITY

The Department of Local Government and Housing are propose to continue with Phase 2 of the Fort West Mixed Use Development

Specific reference is made to land uses as this determines a sustainable community in a harmonious environment.

The land uses envisaged for the proposed Fort West Phase 2 Development Area will include, inter alia:

- Single Residential uses with an erf size of approximately 350m<sup>2</sup>.
- High Density Residential Uses with a density of between 80 and 120 units per hectare.
- Community Facilities that will include a police station, post office, sport stadium and clinic.
- Offices that will also include medical suites, estate agents and a veterinary.
- Public Open Space. This will include the open space provided next to the ridge, the stream, the sport stadium and then provision will also be made for community parks.
- Institutional. One primary school and secondary school will be provided. Provision will also be made for at least 4 crèches and 4 Places of Public Worship.
- Retail facilities which will accommodate public transport.

### Property description

The subject properties are located within the western sector of the Tshwane Metropolitan Municipality. See **Figure 1**

The Farm Fort 646 JR consists of four (4) farm portions which are registered in the name of the Republic of South Africa. The four (4) farm portions are as follows:

- Remaining Extent of the Farm Broek Scheur 318 JR
- Portion 16 of the Farm Pretoria Town and Townlands 351 JR
- Portion 31 of the Farm Pretoria Town and Townlands 351 JR
- Portion 226 of the Farm Pretoria Town and Townlands 351 JR

The size of the Farm Fort 646 JR is approximately 389, 4278 (three hundred eighty nine comma four two seven eight) hectares in extent. The above farm was later subdivided again and Phase 2 of the proposed Fort West development will consists of the following Potions:

Potion 2 of the farm Fort 646 JR  
Potion 3 of the farm Fort 646 JR  
RemainingExtentoftheFarmFort646JR



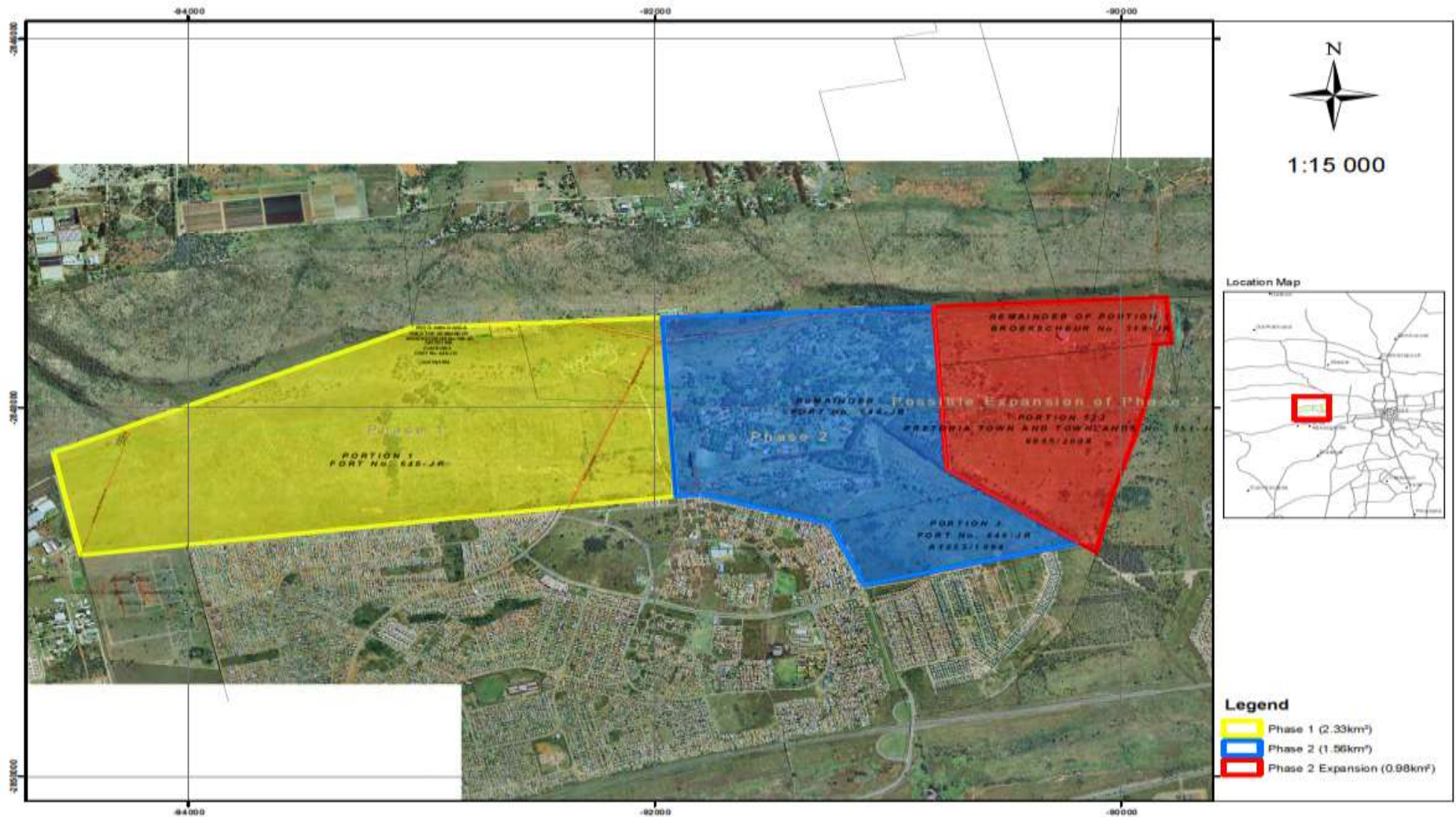


Figure 1



## 2.2 Planning Frameworks

The provincial policies and guidelines listed here are applicable to the proposed development and the requirements and obligations therein have been considered throughout the EIA process:

### 2.2.1 Conservation Plan (C-Plan)

The Gauteng Department of Agriculture Conservation and Environment, 2011: Gauteng Biodiversity Gap Analysis Project: Gauteng Conservation Plan Version 3.3, Johannesburg, GDACE, aims to identify and map the distribution of areas that are of importance to biodiversity in Gauteng.

### 2.2.2 GDACE Ridges Policy

The Gauteng Department of Agriculture, Conservation and Environment has produced a guideline on ridges in Gauteng. The purpose of the guideline is to set out the Department's policy on the conservation, development and use of ridges in the province with a view to ensuring that members of the public are able to make informed decisions regarding proposals for development on ridges and the use of ridges; officials make consistent decisions in respect of planning and environmental applications that involve negative impacts on ridges; and the Department's responsibility in respect of the protection of the environment is carried out in an efficient and considered manner.

The guideline indicates that ridges that fall within the following definition are included within the scope of the guideline:

.." A ridge includes hills, koppies, mountains, kloofs and gorges and/or a landscape type or topographic feature that is characterized by two or more of the following features — (i) a crest, (ii) plateau, (iii) cliff or (iv) footslope. In addition, ridges are characterized by slopes of 5° or more when modeled in a Geographic Information System digital elevation model that is based on 20m contour intervals at a scale of 1:50 000.

The functions and benefits provided by ridges range from purely ecological to recreational. The quartzite ridges of Gauteng are extremely limited in distribution. They are characterized by a unique plant species composition that is found nowhere else in South Africa or the world. Many Red List / threatened species of plants and animals inhabit ridges. Due to their threatened status, Red List species require priority conservation efforts in order to ensure their future survival. The conservation of ridges in Gauteng will contribute significantly to the future persistence of these species. The protection of ridges in their natural condition will greatly improve the bio-geographical capability of the Gauteng urban open space network (Poynton & Roberts, 1985) as ridges can be viewed as naturally existing corridors that can functionally interconnect isolated natural areas (Adams & Dove, 1989) and require minimal or no management (Loney & Hobbs, 1991). Ecological processes associated with ridges, such as wildlife dispersal, evolutionary processes, hydrological processes and pollination, are important for the maintenance and generation of biodiversity and provide important ecosystem services to society.



### 2.2.3 Tshwane Integrated Environmental Policy (TIEP)

The TIEP describes the environmental vision of the CTMM as follows:

An internationally acclaimed African city of excellence caring for its environment, demonstrating commitment and responsibility through innovation and collaboration.

TIEP's principles essentially the policy aims to make environmental issues and environmental sustainability an essential part of:

- all decision-making processes;
- the development of strategies and programmes for implementation in Tshwane;
- the development and planning of land use; and
- the management of resources and activities.
- The TIEP aims to impact in a practical manner on various municipal operations and procedures.

From the above, it is clear that the vision of the Environmental Management Division, supported by the Tshwane Integrated Environmental Policy (TIEP), adds an environmental concern to the City Vision and CDS.

### 2.2.4 Gauteng Spatial Development Framework

The Gauteng Spatial Development Framework identified five (5) critical factors for development in the province (and by implication in Tshwane), namely:

- Contained **urban growth**
- Resource based **economic development** (resulting in the identification of the economic core)
- Re-direction of **urban growth** (stabilise/limit growth in economically non-viable areas, achieve growth on the land within the economic growth sphere)
- **Protection of rural areas** and **enhancement of tourism** and agricultural related activities
- **Increased access and mobility.**

The development proposal for the Fort West mixed land use township, complies with a number of the outlined critical factors. The proposed Fort West mixed land Use Township is aimed at providing housing opportunities to at least 8000 families in an affordable manner, within the urban edge, within a well designed mixed use township. The development framework will be designed to meet the needs of the community for housing, convenience, education, social and healthcare amenities. The diverse land uses will further compliment the surrounding land uses.



### 2.2.5 Tshwane City Strategy

The Tshwane City Strategy is a bold initiative by the City of Tshwane Metropolitan Municipality (CTMM) to influence the development path of the City over the next 20 years. The City Strategy introduces important implicit policy and emphasis shifts. One of the fundamentals of the City Strategy is the restructuring of the urban environment in such a way that people's lives are improved through better and more equal access to economic and social opportunities. Just as with the National Spatial Development Perspective, this implies a focused approach to development around areas with opportunity, not only for economic development, but also for residential development.

Some of the issues related to densification that are clearly highlighted by the City Strategy are:

- Create places of opportunity that will support wide range of densification in places that benefit from access to concentrated public investment in services and infrastructure
- Create economic opportunities at important interchanges and nodes receiving clusters of social facilities and allow higher density residential development to grow around these places.
- Present alternatives to people whereby the advantages that different places can offer are optimised.

The development proposal for the Fort West mixed land use township, complies with a number of the outlined critical factors. The proposed Fort West mixed land Use Township is aimed at providing housing opportunities to at least 8000 families in an affordable manner, within the urban edge, within a well designed mixed use township. The development framework will be designed to meet the needs of the community for housing, convenience, education, social and healthcare amenities. The diverse land uses will further compliment the surrounding land uses.

### 2.2.6 Sustainable Development Criteria for Built Environment Projects requiring Environmental Impact Assessments in Gauteng, 2009

This document has been developed by the Gauteng Department of Agriculture and Rural Development to ensure that sustainable development is integrated in to planning and design of built environment projects requiring Environmental Impact Assessments (EIAs) in Gauteng.

The document defines sustainable development and outlines the implications of this for the built environment. It also provides objectives and criteria for sustainable built environments that can be used by developers of built environment project that require EIAs.

The environmental context, legislation and potential future measures to reduce carbon measures make it clear that the built environment must change to support sustainable development and has a very significant role to play. In order to develop practical measures that should be integrated into the built environment it is useful to set out built environment or development objectives that, together, would





support sustainable development. These objectives are set out below and form the starting point for the sections in this document which provide more detailed criteria.

**Land Use and Integrated Development:** Development should be integrated with existing and planned infrastructure and land uses to ensure efficient systems and balanced land use.

**Biodiversity:** Development should be located where damage to natural environments and ecosystems is minimised. It should ensure that existing natural environments are conserved and take opportunities to strengthen this.

**Agriculture and Landscaping:** Development should be located where they will not lead to a loss of agricultural land. Landscaping and agriculture should be developed and managed to minimise negative impacts and local food production should be supported.

**Water, Sewage and Storm Water Runoff:** Development should minimise the consumption of municipal potable water and production of waste into municipal sewage systems. Increased storm water runoff and water pollution should be avoided.

**Materials and Construction:** Development should minimise the negative environmental impacts of construction and the consumption of resources. Positive social and economic impacts of construction and resource use should be maximised.

**Energy, Mechanical and Electrical Systems:** Development should minimise the use of non-renewable energy and maximise use of renewable energy sources.

**Waste and Pollution:** Development should minimise the amount of waste diverted to land fill. Pollution should also be avoided.

**Local Economic Development:** Development should support diverse productive local economies that create work and sustainable enterprises.

**Transport:** Development should reduce the reliance on cars and ensure that low energy environmentally friendly forms of transport are encouraged.

**Health and Well Being:** Development should support the health and well being of people on site and in neighbouring communities.

**Education:** Development should support education and ongoing learning of people on site and in neighbouring communities.

**Housing:** Development should support Inclusionary Housing and ensure that people who work on site do not have to travel long distances to access affordable housing.



**Inclusion and Social Cohesion:** Development should support social cohesion and benefit the full diversity of the population.

**Management and Monitoring:** Sustainable development targets that reflect the South African context should be set for the development and operation of the development. Management and monitoring should be carried out to ensure that these are achieved.

The proposed Fort West mixed land use Township is well located to the Tshwane CBD and surrounds. Vacant land will be utilized for predominantly residential development — mostly catering for entry level and middle income bonded housing. Mixed income and social integration across race and income levels is possible for this development. Bulk infrastructure in form of water, sewerage and electricity is readily available. The development proposal offers a vast range of community facilities and services to the surrounding areas.

## **2.2.7 Tshwane Open Space Framework**

Open Space as defined by the Tshwane Open Space Framework (TOSF), adds ecological, social, economic and place making value to any development, and the integration and appropriate response of development to Open Space must at all times be facilitated.

Any development within or adjacent to the TOSF network, must be compatible to the functioning, quality, safety requirements and aesthetics of the Open Space in terms of land use, scale, spatial interaction, appearance and landscaping. Developments must actively contribute to the protection and enhancement of the current and envisioned open space network, without harming the integrity of the open space in any way.

According to the TOSF, open space within a developed area, is referred to as an Urban Environment. This open space becomes Private Open Space, for the exclusive use of the specific community, and is owned and maintained by the representative entity of the development. According to the TOSF, possible open space to be considered for proposed Fort West mixed land use development, includes Green (Irreplaceable site, Protected Area, High Ecological Sensitivity) and Blue (Dams, Wetlands and rivers) *Ecological Nodes*, and Green

(Ridge systems) and Blue (Watercourses, floodlines) *Ways*. These open space typologies are all considered to be of metropolitan significance and influence.

According to GDACE, Green and Blue Nodes are essential in meeting targets set for the conservation of biodiversity in Gauteng. The Tshwane Open Space Framework provides a holistic Framework within

which the sustainable spatial development of the City can be guided and directed. The principles of the TOSF will be implemented in the planning phases of the proposed Commercial and Light Industrial



Township. These principles serve to facilitate the merger of development along side areas of conservation importance.

As the policy of the City of Tshwane requires that open space is provided in new proposed townships, measures will be taken to incorporate functional "Open Space" areas throughout the Fort West development.

## **2.3 Bulk Services Provision**

The following information is extracted from the feasibility study.

### **2.3.1 Existing Infrastructure**

Davidsonville was the only infrastructure (housing) identified on the portion of Farm FORT 646 JR. Davidsonville is situated on the northern side of the property, on the southern ridge of the Waterberg.

The 19 families living in the old housing wards accommodation are serviced with water, sewer, gravel roads and electricity. The mentioned services are preliminary identified as only adequate for these families. The residents did indicate during a site visit that they are experiencing problems with the sewage blocking and water pressure dropping on regular basis.

### **2.3.2 Transportation and Bus Routes**

No comment on the impact of the development on Transportation and Bus routes is available at this stage. A traffic impact study will be compiled for the planned development. The impact on existing road infrastructure and especially on transportation and bus routes will be identified in the traffic impact study.

A draft Intergrated Spatial Development Framework for Atteridgeville and Lotus Gardens report compiled in January 2008 indicated that there are railway network and public transport network in the surrounding suburbs of the proposed development. The rail network is between the Pretoria Station and the Atteridgeville station. The public transport consists of taxi and bus routes.

## **2.4 Road Network**

The existing roads on the portion of Farm FORT 646 JR (property in question) consist of:

- A gravel road leading from Henna Street in Lotus Gardens to Davidsonville.
- Single gravel carpaths and normal footpaths were also identified on the property.
- A gravel road leading to the Lotus Garden reservoir exists on the north side against the rocky ridge of mountain.
- The surrounding suburbs have a series of premix (tarred) surface roads and gravel roads.



- The eastern access from Elandspoort is a premix road which is the main access road to the hospital ward/grounds.

According to the Tshwane Metropolitan Municipality roads masterplan, a future road, class (U) 3 District distributor is planned on the southern boundary of the property. This road will have a 32 m road reserve.

## 2.5 Storm Water Management

A storm water management plan will be developed as soon as the master plan for the proposed development has been finalized.

## 2.6 Water Supply

The proposed development falls within the Lotus Garden HL reservoir zone. Notice must be taken that the whole farm FORT 646 JR falls on two reservoir zones, Lotus Garden and Pretoria West HL reservoir zones. Lotus Garden reservoir has a capacity of 9500 kg, with 213 hr of capacity left according to Tshwane. There are two main water lines running through the property feeding Lotus Gardens. The two mains are a 355 mm diameter uPVC and 400 mm diameter steel pipeline. A servitude is registered for these pipeline routes.

Tshwane Metropolitan Municipality master planning for the area is based on a development density of 20 units per ha. The preliminary water demand for the proposed development, based on *Principles and Standards for the Design and Construction of Water and Sanitation Systems in the City Of Tshwane Metropolitan Municipality (Revision July 2004)*, defines the following parameter guidelines,

<b>Land usage Description</b>	<b>Size</b>	<b>Design parameter</b>	<b>Demand (AADD)</b>
Low cost housing, Density of 40 units per ha	2808 units	0.7 kVerfiday	1966 k8/day
<b>Total estimated water demand (AADD)</b>			<b>1966 ke/day</b>
<b>Flow per second</b>			<b>22.75 e/s</b>
<b>PWF</b>	<b>Peak Weekly Factor</b>		<b>1.40</b>
<b>PDF</b>	<b>Peak Daily Factor</b>		<b>1.80</b>
<b>PHF</b>	<b>Peak Hourly Factor</b>		<b>3.40</b>
<b>Peak demand</b>	<b>Peak Hourly Consumption</b>		<b>77.35 e/s</b>

## 2.7 Sanitation

The bulk sewer line for the whole area runs along Church Street which is located several km's south of farm FORT 646 JR. This is a gravity feedline that runs to the Daspoort Sewage Treatment works. A preliminary indication from Tshwane is that a section of the 800 mm diameter bulk line must be upgraded. On the southern portion of the farm FORT 646 JR a 160 mm diameter sewer line runs through the property and flows into a 200 mm pipeline. However, a preliminary check using a grade of 1:100 and 75 % full flow indicates that the pipe size must be increased to a 250 mm diameter pipeline.

## 2.8 Electricity

There is no surplus electrical capacity available in the area. The existing 11kV ring systems in the Lotus Gardens areas supplied from the 132/11kV Zebra substation is running at peak and cannot be expanded according to Tshwane Electrical. The 11kV overhead supply from the other side of the Waterberg to the old hospital staff quarters is also inadequate.

In view of the fact that no township layout detail is available as yet, the anticipated demand is at this stage, based on typical standard RDP residential developments at an ADMD as defined by Tshwane of 3.5kVA per stand, which computes as follows:

2808 stands at an ADMD of 3.50kVA per stand = 9,828 kVA = 10MVA



The appropriate load density and calculation parameters will be finalised with Tshwane once the final township development details have been received.

## 2.9 Site & Surrounding Land Uses

The Farm Fort 646 JR is surrounded by medium cost, formalised residential areas of Elandsfontein, Lotus Gardens, Elandspoort, Danville and Davisonville. The old Fort West Leprosy Hospital is located to the east of the site. The Witwatersberg Ridge system defines the northern boundary of the site. The development area is situated 13km west of the Pretoria Inner City.

The site is currently vacant. Owing to current surrounding land uses, the site has been subjected to various anthropogenic influences over an extended period of time. The Fort West development will be in line with, and complimentary to, surrounding land uses.

## 2.10 Investigation of Alternatives

The consideration of alternatives for the use of a site or the undertaking of an activity is a pre-requisite in terms of the NEMA. Alternatives, in relation to a proposed activity, refer to different means of meeting the general purposes and requirements of the activity, which may include alternatives to:

- the property on which or location where it is proposed to undertake the activity;
- the type of activity to be undertaken;
- the design or layout of the activity;
- the technology to be used in the activity; and
- the operational aspects of the activity.

In terms of the NEMA EIA Regulations, one of the criteria to be taken into account by the competent authority when considering an application is *"any feasible and reasonable alternatives to the activity which is the subject of the application and any feasible and reasonable modifications or changes to the activity that may minimise harm to the environment"*. Alternatives are defined in the Regulations as *"different means of meeting the general purpose and requirements of the activity"*. It is therefore necessary to provide a description of the need and desirability of the proposed activity and any identified alternatives to the proposed activity that are feasible and reasonable, including the advantages and disadvantages that the proposed activity or alternatives will have on the environment and on the community that may be affected by the activity.

## 2.11 Alternatives considered for the Fort West Mixed Land Use Development

Scip has been appointed by the Gauteng Department of Local Government and Housing Tshwane / Metsweding region, to facilitate the Fort West mixed housing and land use development. The following alternatives for the Fort West development will be evaluated in detail in the EIA report.

- Location alternatives: Location alternatives refer to alternative properties as well as alternative sites on the same property.
- Activity alternatives: Activity alternatives refer to other means of achieving the same ends or the consideration of other activities, for example the establishment of residential development only, rather than the proposed mixed land use.
- Design or layout alternatives: Design: e.g. different architectural and or engineering designs.
- Site Layout: consideration of different spatial configurations of an activity on a particular site (e.g. locating a noisy plant away from residences).
- Technology to be used in the activity / Process alternatives: Consideration of such alternatives is to include the option of achieving the same goal by using a different method or process (e.g. 1 000 megawatt of energy could be generated using a coal-fired power station or wind turbines).
- Demand alternatives: Arise when a demand for a certain product or service can be met by some alternative means (e.g. the demand for electricity could be met by supplying more energy / using energy more efficiently by managing demand).
- Input alternatives: Input alternatives are applicable to applications that may use different raw materials or energy sources in their process (e.g. industry may consider using either high sulphur coal or natural gas as a source of fuel).
- Routing alternatives: Consideration of alternative routes generally applies to linear developments such as power lines, transport and pipeline routes.
- Scale alternatives: Activities that can be broken down into smaller units and can be undertaken on different scales (e.g. for a housing development there could be the option of 10, 15 or 20 housing units rather than blocks of flats and offices on business uses). Each of these alternatives may have different impacts.



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- No development / no-go option (none of the listed activities applicable): The no development / construction alternative must be considered in keeping with the legal requirements Section 24 (4) of NEMA). The current zoning is for an agricultural use of the property and this is assumed as the basis for consideration of alternatives.



### 3. DESCRIPTION OF THE ENVIRONMENT THAT MAY BE AFFECTED

*In terms of the EIA Regulations (2010), a Scoping Report must contain: 28. (1) A scoping report must contain all the information that is necessary for a proper understanding of the nature of issues identified during scoping, and must include — (e) a description of the environment that may be affected by the activity and the manner in which the activity may be affected by the environment.*

This chapter provides a description of the receiving environment within the study area. Three components to the environment are recognised:

- Physical Environment;
- Biological Environment; and
- Socio-Economic Environment.

This section of the document provides a brief description of the existing biophysical and built / social environments. It draws on information from site visits, the study team and members' experiences, background literature as well as 1: 50 000 maps and photographs. In doing so, it presents a background against which the positive and negative impacts of the proposed options can be assessed. The existing social environment includes information regarding land-use and landownership, culture and historical aspects, etc.

#### 3.2 Regional climate and temperature:

Regionally, the site lies within the dry subtropical climate in the mid latitude of the world climate classification. The area receives most of its rainfall in summer with a total rainfall of between 600 to 700 mm per year. Temperatures vary between 7°C and 35°C during summer and –5°C and 24°C during the winter months.

The Proposed Fort West development falls within the Crocodile (West) Marico Water Management Area (WMA). The climatic conditions across this WMA are temperate and semi-arid in the east to dry in the west. Rainfall is strongly seasonal, with most rainfall occurring as thunderstorms during the summer period of October to April.

**Table 3.1**

Month	Temperature (° C)				Precipitation		
	Highest Recorded	Average Daily Maximum	Average Daily Minimum	Lowest Recorded	Average Monthly (mm)	Average Number of days with $\geq 1$ mm	Highest 24 Hour Rainfall (mm)
January	36	29	18	8	136	14	160
February	36	28	17	11	75	11	95
March	35	27	16	6	82	10	84
April	33	24	12	3	51	7	72
May	29	22	8	-1	13	3	40
June	25	19	5	-6	7	1	32
July	26	20	5	-4	3	1	18
August	31	22	8	-1	6	2	15
September	34	26	12	2	22	3	43
October	36	27	14	4	71	9	108
November	36	27	16	7	98	12	67
December	35	28	17	7	110	15	50

### 3.3 Sensitive landscapes

There are 8 reserves in City of Tshwane Municipality covering 10379.3ha (4.8% of municipality)  
 The proposed Fort West Phase 2 Development falls within existing urban development area and none of the below mentioned sites fall within a 5km radius



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### 3.3.1 Land-based protected areas (formal)

Name	Category	Size
Cradle of Humankind World Heritage Site	World Heritage Site	201.1ha (0.09% of municipality)
Faerie Glen Municipal Nature Reserve	Municipal Nature Reserve	126.6ha (0.06% of municipality)
Groenkloof National Park	National Park	581.7ha (0.27% of municipality)
Magaliesberg Protected Natural Environment	Protected Natural Environment	3576.4ha (1.64% of municipality)
Moreleta Kloof Municipal Nature Reserve	Municipal Nature Reserve	93.7ha (0.04% of municipality)
Rietvlei Dam Municipal Nature Reserve	Municipal Nature Reserve	3817.5ha (1.76% of municipality)
Struben Dam Bird Sanctuary	Bird Sanctuary	1.4ha (0% of municipality)
Tswaing Meteorite Crater Reserve	Meteorite Crater Reserve	1980.9ha (0.91% of municipality)

**Table 3.2: Land-based protected areas (formal)**



### 3.3.2 Ramsar sites

There are no Ramsar sites in City of Tshwane Municipality.

### 3.3.3 Biomes

There are 2 biomes in City of Tshwane Municipality:

Grassland	54048.5ha (24.85% of municipality)
Savanna	163408.3ha (75.15% of municipality)

### 3.3.4 Vegetation Types

There are 12 vegetation types in City of Tshwane Municipality:

<b>Andesite Mountain Bushveld</b>	<b>4331.5ha (1.99% of municipality)</b>
Carletonville Dolomite Grassland	33428.3ha (15.37% of municipality)
Central Sandy Bushveld	60921.7ha (28.02% of municipality)
Egoli Granite Grassland	14666.8ha (6.74% of municipality)
Gauteng Shale Mountain Bushveld	7756.1ha (3.57% of municipality)
<b>Gold Reef Mountain Bushveld</b>	<b>9467.2ha (4.35% of municipality)</b>
Marikana Thornveld	57581.3ha (26.48% of municipality)
Moot Plains Bushveld	9338.9ha (4.29% of municipality)
Norite Koppies Bushveld	4011.5ha (1.84% of municipality)
Rand Highveld Grassland	6103.9ha (2.81% of municipality)
Springbokvlakte Thornveld	9840.9ha (4.53% of municipality)
Subtropical Salt Pans	8.8ha (0% of municipality)

The application site falls predominantly within the Andesite Mountain Bushveld vegetation type. A small portion of the site falls within the SVcb 9 Gold Reef Mountain Bushveld vegetation type. The conservation targets of these vegetation types fall between 24 — 26%, and hence, the vegetation on site is unlikely to be of conservation importance.



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### 3.3.5 Threatened Terrestrial Ecosystems

There are 4 critically endangered ecosystems in the City of Tshwane Municipality

#### Critically Endangered

Bronberg Mountain Bushveld	185.9ha (0.09% of municipality)
Magaliesberg Pretoria Mountain Bushveld	2302.1ha (1.06% of municipality)
Rietvleiriver Highveld Grassland	3951ha (1.82% of municipality)
Witwatersberg Pretoria Mountain Bushveld	10384.4ha (4.78% of municipality)

There are 2 endangered ecosystems in the City of Tshwane Municipality

Egoli Granite Grassland	9169.1ha (4.22% of municipality)
Witwatersberg Skeerpoort Mountain Bushveld	175.4ha (0.08% of municipality)

There are 3 vulnerable ecosystems in City of Tshwane Municipality

Marikana Thornveld - SVcb 6	13363.9ha (6.15% of municipality)
Rand Highveld Grassland - Gm 11	701.9ha (0.32% of municipality)
Springbokvlakte Thornveld - SVcb 15	3643.6ha (1.68% of municipality)

### 3.4 Regional socio-economic structure

CoT is made up of 76 community wards, which are divided into five administrative regions (CoT IDP, 2009). The five regions are:

- Southern Region (Centurion, Olievenhoutbosch area)
- North West Region ( Akasia, Soshanguve area)
- Eastern Region (Garsfontein, Mamelo
- North East Region (Hammanskraal area)
- **Central Region (Inner-City, Atteridgeville area)**

CoT is characterised by a rapidly growing population. The projected annual growth of the population between 1996 and 2001 Community Survey (CS), the population CoT's Household Survey 2008 indicates a growth of 3.4% The situation is exacerbated by immigration, resulting in an increase of informal settlements and an estimated 26.8% of all households residing in informal housing.

Demographics of a study area are important to ensure that new developments will complement the existing land uses.



Pretoria West is one of the oldest areas of the Capital. Pretoria West and is characterised by some of the most historic buildings in Pretoria. The Fort West area forms part of the *Atteridgeville and Lotus Gardens ISDF*. The *Atteridgeville - Lotus Gardens* population is in the order of approximately 172 000 people. According to the 2001 census, 88,9% of this population is black, 8.8% are white, 1.8% are Indian, and 0.5% are coloured. The dominant language in the region is Sepedi.

Most of the people living in the surrounding neighbourhoods live in formal housing, with the exception of the Atteridgeville informal settlement. Kwaggasrand and Wespark have a small percentage of high rise flats and apartments. Regarding the gender composition of the study area, the 2001 census results revealed that the percentage of males (50.7%) is larger than the females (49.3%). The age group of people in the Lotus Gardens area is between 0 and 19 years of age. Given this young age category, it is clear that educational and health care facilities (family planning) must be provided in the area, as part of any new development.

### 3.5 Economic activities

The following is a brief summary of the most salient economic features of the City of Tshwane

- Tshwane economy grew at a higher rate than the national economy and even many prominent international economies. The city maintained an annual growth rate of 1.4 percent in 2003, compared to the national average of 1.9 percent.
- In 2003, the Economically Active Population (EAP) of Tshwane amounted to 48 percent of the total population. (the EAP includes working people and those who are actively looking for work.) this is higher than the national average of 38,3 percent, but lower than Gauteng's average of 52,7 percent. The EAP increased between 1996 and 2003.
- Tshwane ranks high in terms of human development, having a per capita income above the national average and higher expenditure per household, although the majority of households still fall within a lower income groups.
- The number of people living in poverty increased (27 % in 2003, compared with 24,3 average percent in 1996). The national figure also reflects an increase, namely almost seven percentage points. The real per capita value added in Tshwane is far above that of the national economy, but is just below that of the Gauteng economy. In Tshwane, it increased from R25 000 to R28 000.
- With the primary sector virtually insignificant, the secondary sector contributes approximately 19 percent to the economy of Tshwane, compared with national average of 23 percent. In the case of the services sector, it's share in the Tshwane economy has increased to 81 percent.



#### 4. LEGISLATION AND GUIDELINES THAT HAVE BEEN CONSIDERED

##### Environmental Rights

*The Constitution of the Republic of South Africa Act, No. 108 of 1996  
Section 24 states that:*

*Everyone has the right to an environment that is not harmful to their health or well-being  
Everyone has the right to have the environment protected for the benefit of present and future generations.*

##### Environmental Management Guiding Principles

*National Environmental Management Act, No. 107 of 1998*

Comments or findings pertaining to the principles are not included specifically though all sections in this report but have been applied with these principles in mind. The National Environmental Management principles, listed at Section 2 of the National Environmental Management Act 107 of 1998 (NEMA), which provide for the social, environmental and economic sustainability of activities, apply “to the actions of all organs of state that may significantly affect the environment”.

*Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental and cultural and social interests equitably (Section 2(2)).*

*Pollution and degradation of the environment must be avoided, or, where they cannot be altogether avoided, are minimised and remedied (Section 2(4)(ii)).*

*The use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource (Section 2(4)(v)).*

*A risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions (Section 2(4)(vii)).*

*The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured (Section 2(4)(f)).*



*Decisions must take into account the interests, needs and values of all interested and affected parties, and this includes recognising all forms of knowledge, including traditional and ordinary knowledge (Section 2(4)(g)).*

*The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment (Section 2(4)(i)).*

### *Duty of Care and Remediation of Environmental Damage*

The duty of care principle is overtly regulated in sections 28 (1) and (3) of the National Environmental Management Act of 1998, and the National Water Act, Section 1:

*(1) Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment.*

*(3) The measures required in terms of subsection (1) may include measures to-*

- Investigate, assess and evaluate the impact on the environment;
- Inform and educate employees about the environmental risks of their work and the manner in which their tasks must be performed in order to avoid causing significant pollution or degradation of the environment;
- Cease, modify or control any act, activity or process causing the pollution or degradation; – Contain or prevent the movement of pollutants or the cause of degradation;
- Eliminate any source of the pollution or degradation;
- Remedy the effects of the pollution or degradation, or
- Remedy the effects of any disturbance to the bed and banks of a watercourse.

Although Section 28 is applicable to all areas of pollution and environmental impact, only those items which have not specifically been addressed in subsequent sections and items of particular importance to Section 28 are included here. However, this section must be borne in mind when assessing any environmental impact described in subsequent sections.

### *Access to Environmental Information*

*Promotion of Access to Information Act of 2000 Section 70 and NEMA Section 31*

Anyone has the right to request information of an environmental nature from the Client and cannot be refused on grounds that are not compliant with the legal requirements.





## Water and wastewater management

### Pollution of Water Resources

*National Water Act, No. 36 of 1998: Section 19*

Measures must be undertaken by the Developer/Proponent to:

- Cease, modify or control any act or process causing pollution;
- To contain or prevent the movement of pollutants, and
- To remedy the effects of pollution.

### Water Wastage

*National Water Act of 1998, Section 22(2)(d)*

Water wastage is prohibited under this section. The developer/proponent must therefore be able take account for all the water received and be able to demonstrate the optimal use of water.

### Waste management

#### Governing Principles for Waste Management

*Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste, 2nd Edition (DWAF, 1998)*

The following principles, many of which are considered internationally as being essential for the management of Hazardous Waste, are acknowledged in the Minimum Requirements and will also be acknowledged in future regulations.

**‘Duty of Care Principle’** – whereby the **generator** of the waste is ultimately responsible for ensuring that the waste is handled, stored, transported and disposed of according to the legislation and in an environmentally sound and responsible manner.

**‘Polluter Pays Principle’** – the person or organisation causing pollution is liable for any costs involved in remediation or rehabilitating its effects. The generator of the waste is thus liable unless able to prove that the transferral of management of the waste was a responsible action.

**‘Precautionary Principle’** – All waste is assumed to be both highly hazardous and toxic until proven otherwise

### Waste Collection and Storage

Section 20(1) of the Environmental Conservation Act, 1989 (Act No. 73 of 1989) states that no disposal site may be established or operated without a permit issued by the Department of Water Affairs.

**“Disposal site”** means a site used for the accumulation of waste with the purpose of disposing or treatment of such waste, and as such covers any permanent (> 90 days) on-site waste accumulation areas on Client’s premises.



## Biodiversity

### Weeds and Invader Plants

*The Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983)*

Specifies certain plants that declared weeds and invader plants that must be controlled or eradicated. These species are divided into three categories, and the control measures applicable to the respective categories are as follows:

#### Category 1:

*Invader plants which have been declared weeds and which may not be allowed to occur on land or in inland water surfaces (other than in biological control reserves).*

#### Category 2:

*Invader plants that may only occur in areas that have been specifically demarcated for this purpose.*

#### Category 3:

*Invader plants that may continue to grow where they already exist. However, no propagating, new planting or trade is allowed and such plants may not occur within 30 metres of the 1:50 year flood line of a river, stream, spring, natural channel in which water flows regularly or intermittently, lake, dam or wetland.*

## International Law

*Convention on Biological Diversity (CBD), June 1993, Ratified 2 November 1995*

The aim of the CBD is to effect international co-operation in the conservation of biological diversity and to promote sustainable use of the living natural resources worldwide. It also aims to bring about the sharing of the benefits arising from the utilisation of natural resources.

## Threatened or Protected Species

*National Environmental Management: Biodiversity Act 10 of 2004 section 57*

A person may not carry out a restricted activity involving a specimen of a listed threatened or protected species without a permit.

### New activities

## Environmental Impact Assessments

An environmental assessment for this development is required in terms of Sections 24 and 24D of the National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998), in terms of which GN R 544, 545, and 546 2010 was promulgated, which lists the activities that require such an assessment. The applicable activities are listed in the table below



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Which Listing Notice is the proposed development listed under?

Relevant Government Notice:	Activity No (s)	Listed activity as per the wording in the relevant listing notice:
GN R544	1	The construction of facilities or infrastructure for the generation of electricity where: i. the electricity output is more than 10 megawatts but less than 20 megawatts; or ii. the output is 10 megawatts or less but the total extent of the facility covers an area in excess of 1 hectare.
GN R544	9	The construction of facilities or infrastructure exceeding 1 000 m in length for the bulk transportation of water, sewage or storm water – (i) with an internal diameter of 0.36 metres or more; or (ii) with a peak throughput of 120 litres per second or more.
GN R544	10	The construction of facilities or infrastructure for the transmission and distribution of electricity - (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts; or (ii) inside urban areas or industrial complexes with a capacity of 275 kilovolts or more.
GN R544	11	The construction of: (i) canals (ii) channels (iii) bridges, (iv) dams (v) wiers (vi) bulk stormwater outlet structures (x) building exceeding 50 square metres in size where such construction occurs within a watercourse or within 32 m of a watercourse, measured at the edge of the watercourse, excluding where such construction will occur behind the development setback line.
GN R544	12	The construction of facilities or infrastructure for the off-stream storage of water, including dams and reservoirs, with a combined capacity of 50000 cubic metres or more
GN R545	15	Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more



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GN R545	18	Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more; except where such physical alteration takes place for: (i) linear development activities; or (ii) agriculture or afforestation where activity 16 in this Schedule will apply.
GN R546	4	construction of a road wider than 4 m with a reserve less than 13,5 m. (b) In Gauteng
GN R546	10	The construction of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres.
GN R546	14	The clearance of an area of 5 hectares or more of vegetation where 75% or more of the vegetation cover constitutes indigenous vegetation...

### *Gauteng Noise Control Regulations*

The Gauteng Noise Control Regulations (GN 5479), Regulation 8, promulgated under the Environment Conservation Act of 1989. Regulation 8: Prohibition of disturbing noise

This clause prohibits the company from producing or causing a disturbing noise.

**“Disturbing noise”** is defined as a noise level that causes the ambient noise level to rise above the designated zone level, or if no zone level has been designated, the typical rating levels for ambient noise in districts, indicated in table 2 of SANS 10103.

**“Zone sound level”** means a derived dBA value determined indirectly by means of a series of measurements, calculations or table readings and designated by a local authority for an area.

Regulation 10: Land Use

In addition, the company may not make changes to existing facilities or existing uses of land or buildings or erect new buildings, if these will house or cause activities that will, after such changes, cause a disturbing noise, unless precautionary measures to prevent such noise have been taken to the satisfaction of the local authority with jurisdiction in the area concerned.

*SANS10103:2004 - extract from Table 2: Acceptable rating levels for noise in districts*



<b>Type of District</b>	<b>EQUIVALENT CONTINUOUS RATING FOR NOISE (DBA) – OUTDOORS</b>	
	<b>Day-time (06h00-22h00)</b>	<b>Night-time (22h00-06h00)</b>
<b>Residential Districts:</b>		
Rural districts;	45	35
Suburban districts with road traffic, and	50	40
Urban districts.	55	45
<b>Non Residential Districts:</b>		
Urban districts with some workshops, with business premises, and with main roads;	60	50
Central business districts, and	65	55
Industrial districts.	70	60

### Contractors and tenants

#### *The Law of Contract*

As a general rule, the Developer/Proponent cannot escape liability to third parties in terms of an agreement between themselves and a contractor. Such an agreement is not binding on third parties. A third party will still be able to hold Developer/Proponent liable. It is possible for Developer/Proponent to join the contractor as a defendant in legal proceedings, alternatively, recover the damages (or part thereof) paid to the third party from the contractor on a contractual basis.

The agreement between Developer/Proponent and the contractor must at least state that the contractor is aware of all the applicable environmental legislation pertaining to his tasks and that the contractor will strictly adhere to this legislation.

#### *Contractors/tenants on site*

This section applies to any contractor working on site or tenant on the property controlled by the Developer/Proponent. This section is included as additional information in ensuring compliance (with regards to all section above) of Client is maintained - compliance remarks is thus not included in this section.



As mentioned in section 3 in this Register, NEMA section 28(1) states that reasonable measures must be taken to prevent pollution or degradation of the environment. Section 28(2) states that the persons on whom subsection (1) imposes an obligation to take reasonable measures include an owner of land

or premises, a person in control of land or premises or a person who has a right to use the land or premises.

Section 154(a) of the National Water Act states the following:

*Offences in relation to employer and employee relationships:*

*Whenever an act or omission by an employee or agent constitutes an offence in terms of this Act, and takes place with the express or implied permission of the employer or principal, as the case may be, the employer or principal, as the case may be, is, in addition to the employee or agent, liable to conviction for that offence.*

Developer/Proponent would be considered as the Employer or Principal, the employee or agent being the tenant or contractor. Developer/Proponent is therefore responsible for ensuring that contractors and tenants are compliant with the legislation where it affects the site. Thus Developer/Proponent may be liable for any illegal discharges, spills or accidents caused by these contractors or tenants (in addition to these contractors or tenants being liable).

Developer/Proponent has not taken reasonable measures to ensure that contractors/stakeholders on site are aware of their responsibility on site and the environmental legal requirements (indicated by the incidents and potential incidents that may have caused environmental degradation associated with the contractors/stakeholders activities).

### Heritage

South African Heritage Resources

*National Heritage Resources Act, Act 125 of 1999*

The SA Heritage Resources Agency (SAHRA) must be notified during the early stages certain planned activities (barriers, bridges, change of site character). Certain permit and reporting requirements apply for heritage sites, structures older than 60 years, archaeological, palaeontological and meteorite findings, burial grounds and graves and public monuments and memorials

### Common law

Common law principles form the basis of current neighbour law and the law of nuisance. It protects an individuals use and enjoyment of property, but limits the use of property so such use does not interfere with the rights of other people (i.e. Neighbours).



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### *Delict, nuisance & neighbour law*

Nuisance and neighbour law are both fall under the law of delict. Nuisance law means to cause a disturbance to another person. This means that the requirements for a successful delict as outlined below apply to neighbour law and the law of nuisance.

The common law rules of delict, nuisance and neighbours can be used to protect your client's environmental rights relating to:

- Noise Pollution;
- Air Pollution, and
- Water Pollution.

### *The law of delict - actions of other people that cause harm to your clients*

The common law of delict allows an individual to claim compensation from someone who does something that causes harm.

### *Requirements for a successful delictual claim*

For such a claim to succeed the person making the claim (the claimant) must prove:

- That the action of the other person was wrong;
- That the person doing the action was negligent, i.e. That the other person was at fault;
- That the claimant suffered a loss which can be given a monetary value;
- That the action of the negligent person caused the monetary loss, and.
- The requirements of wrongfulness and negligence are very important here.

### *Was the action wrong?*

In deciding whether an action was wrong the law tries to determine which actions are seen as wrong by the community as a whole. The action must be wrong because it violates a legal duty to take care (e.g. NEMA, Section 28: 'Duty of Care') or because it results in an unjustified infringement of the legally protected rights of another person. Generally speaking it is wrong to cause harm to another person or their property through negligent conduct.

### *Was the action negligent?*

A person's liability to pay a claim (their guilt) usually depends on whether or not the court finds that they were at fault - i.e. Whether they acted negligently or not. In order to test whether the person doing the action was negligent, the courts apply the test of the "reasonable man". In applying this test the court asks:



- Would the reasonable man, in the position of the person doing the action, have foreseen that the action would cause harm?
- Would the reasonable man have taken steps to avoid the harm?
- The court may find the action of a person caused the damage to the claimant and he or she will have to pay the claimant a sum of money equal to the amount of damage that the claimant suffered to compensate the claimant for his loss, if the court finds:
  - That the reasonable person would have foreseen that the action would cause harm; - That the reasonable person would then have taken steps to avoid the harm, and
  - That the person who actually did the action did not take steps to avoid the harm.

### *The law of nuisance*

The law of nuisance is divided into three categories:

- Public nuisance - where someone's action causes an inconvenience to the general public;
- Private nuisance - where an action by one person interferes with another person in the ordinary use of his or her property, and
- Statutory nuisance - where a legislative authority declares an action or process to be a nuisance.

### *The law of private nuisance*

The law of private nuisance recognises the right of an owner of land to enjoy their land in physical comfort, convenience and well-being without unreasonable interference from others. Due to the fact that we have to make some allowances for the actions of the people with whom we share our society, each landowner must be prepared to put up with some interference with their right to enjoy their land. It is therefore possible for this right to enjoy land to be interfered with by smoke, gas, fumes or noise generated by another person, as long as it is not unreasonably interfered with. If the interference is unreasonable then the landowner can take legal action to protect his right to enjoy his land under the law of private nuisance

In the case of private nuisance the person who is usually liable is the person who owns the land from which the nuisance originates. The following people may be liable:

- The owner or occupier of the land who actually causes the nuisance, and
- The person who did not cause the nuisance in the first place, but who has control of the land or has taken over control of the land.

The person who has taken over the land is only liable if that the nuisance is on-going, he or she became aware of the nuisance, and failed to take reasonable steps to stop or limit the nuisance.





### *The law of neighbours*

It is a general rule of our law that a landowner may not use his or her property in a way that causes harm to another person. This means that a landowner's right to use the property is limited and that there is an obligation on him or her not to act in a way that will infringe the rights of a neighbour. The test of whether the landowner's use of his property fails to comply with this obligation is one of reasonableness and fairness. This principle of reasonableness is relevant to all forms of polluting activities



## 5. ENVIRONMENTAL ISSUES AND POTENTIAL IMPACTS

The aim of this Scoping Study is to identify, record and describe the issues raised by stakeholders and the environmental team, in regard to the proposed Fort West Phase 2 development.

This section of the report serves to describe and discuss the potential environmental impacts associated with the proposed project, and to provide recommendations for further studies required within the EIA phase. The recommendations enable the Specialist Studies to be clearly focused and provide a framework for the Impact Assessment of the proposed project on the environment, and of the environment on the proposed project.

An environmental issue is defined as "a generally expressed environmental concern or "impact" raised in an EIA process by the EAP, key stakeholders, authorities or I&AP's. The purpose of this section is to reflect the *key* environmental issues associated with the proposed project that has been raised through the EIA process.

Key issues were identified according to the following criteria:

- Whether or not the issue raised falls within the scope and the responsibility of the project;
- Whether or not there is sufficient information available to respond to the issues or concerns raised without further specialist investigation; and
- Whether any aspect of the project is inconsistent with the legal, policy or planning framework.

### 5.1 Baseline Environment

The baseline environment (or prevalent environmental status) of the project represents the current prevailing environmental conditions and existing levels of pollution or degradation prior to the proposed development. The baseline information is therefore indicative of the *current environmental status*. Baseline information was gathered through visual inspections of the site and its surroundings, desktop studies as well as Geographical Information Tools.

The baseline description provides an indication of:

- Current environmental conditions;
- Current levels of disturbance / degradation; and
- Environmental and social sensitivity / tolerance to change.

The baseline information serves as a reference point to scientifically measure or professionally judge the future changes to the environment based on impacts associated with the proposed project.



## 5.2. Geotechnical Conditions

Suitable geotechnical and undermining conditions are necessary for residential dwellings. Scip will appoint a specialist to conduct a Geotechnical Survey of the proposed Phase 2 Fort West development. The main objective of the investigation will be to define the ground conditions and provide preliminary Site Classifications including detailed soil profile and groundwater occurrences within the zone of influence of foundation work.

According to the 1:50 000-scale 2528CA *PRETORIA* geological sheet, the investigated area is underlain by:

- Shale, locally ferruginized with chert and quartzite;
- Andesitic lava, locally with interbedded shale, agglomerate and tuff and
- Quartzite.

All of the abovementioned form part of the Daspoort Stage of the Pretoria Group, Transvaal Supergroup. A large diabase dyke/sill, running in an east-west direction is present immediately to the north of the investigated area. No dolomite was found on/or in close proximity of the site.

### ***Possible Impact***

Potential subsidence of residential dwellings

## 5.3 Topography and Ridges

The site is located at approximately 1440 meters above sea level. The northern boundary of the application site is characterised by a class 2 Ridge of the Witwatersberg Ridge system. The site slopes in a southerly direction, with drainage on site occurring from west to east. According to the GDARD Ridges policy, a maximum of 5% of the ridge on the property may be developed. This development may only take place adjacent to current transformed areas on the ridge system. Hence, the majority of the class 2 ridge on site is not developable. A 200m buffer zone is required around the ridge.

The application site is located in the watershed A23D and A21H. Catchment A23D flows to the Apies river which joins the Pienaars River and eventually, the Crocodile River.

A drainage line flows across the site from west to east. Scientific Aquatic Services CC (SAS) undertook an Ecological Assessment of the proposed Phase 1 and Phase 2 Fort West Development, in April 2010. SAS investigated the presence of natural wetland systems associated with this drainage line. No wetland systems were identified on site, however, strict compliance of regulations for development within *floodlines* must be adhered to.



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### ***Possible Impacts***

Site preparation and shaping activities will permanently remove vegetation cover, and transform the majority of the habitat over the development area. The site is greatly impacted on by directly adjacent formal and informal settlement residents traversing across the site, and using the site for make shift sports fields, etc. Trees have been harvested for wood, and mammal species once present on site, have all been trapped and hunted out. Ecologically speaking, the site is seen as disturbed vacant space, located in between areas of formalised and informal development.

The site is characterised by a class 2 ridge system along the northern boundary. This important feature must be accommodated in the township layout.

It is recommended for the EIA phase that a detailed Ecological Assessment of the site be undertaken within the correct growing seasons. A sensitivity map must be produced, which will be used to guide the development's layout

## **5.4 Vegetation**

A high level of disturbance of indigenous flora was found on site. The disturbance has been caused by anthropogenic activities such as illegal dumping. The spread of invasive species is an issue of concern as they result in the destruction of indigenous biomes and a reduction in biodiversity, especially for endemic species.

### ***Possible Impacts***

Invasive species pose a threat to indigenous flora. It is recommended for the EIA phase that a detailed Ecological Assessment of the site be undertaken within the growing seasons. A sensitivity map must be produced, which will be used to guide the development's layout. The EMP will be developed to control possible invasive species.

## **5.5 Fauna**

Increasing threats to indigenous fauna result because of urbanisation and human encroachment into faunal habitats, thus impacting on faunal mobility. Mammal species once present on site, have all been trapped and hunted out. Ecologically speaking, the site is seen as disturbed vacant space, located in between areas of formalised and informal development.

### ***Possible Impacts***

The construction of the proposed development may result in the loss of faunal species and forced migration of these fauna outside of these habitats into surrounding areas. Should species of relevance be observed during the Ecological Survey, this will be covered in detail in the EIA report.



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## 5.6 Ecological Sensitivity

Following the outcome of the Ecological Assessment, a collated ecological sensitivity map will be compiled, and will be used to indicate the location and extent of all sensitive areas on site, that must be protected from transforming land uses.

The Gauteng Conservation Plan Version 3.3 has been used to identify possible ecological sensitive areas as part of the initial survey.

### ***Possible Impacts***

The most significant impacts are the long-term ecological effects that result from anthropogenic disturbance, modification, and conversion of natural habitats. The result is that native plant and animal populations are reduced, confined to small areas, or lost altogether. Survival of species themselves may be in jeopardy. Most species become endangered or threatened because their habitat is modified or eliminated, or they are overharvested. Pressure on natural systems comes from basic survival needs for food and fuel and from the desire of the people and the governments to raise the standard of living, provide housing, and promote industrialization and modern agricultural development. Solutions for the long-term must emphasize finding ways to maintain the ecological integrity and functions of "developed" areas.

Environmentally sensitive areas can enhance the quality of places where people live, work and play. Should the proposed site be considered ecologically sensitive, containing remnant native vegetation, endangered Ecological Plant Communities, threatened species and aquatic environments, given the high profile nature of the development, it should be essential that ecological management for the site be met not only through legislative requirements but also local community expectations.

## 5.7 Heritage

Heritage conservation and management in South Africa is governed by the *National Heritage Resources Act* (Act 25 of 1999) and falls under the overall jurisdiction of the *South African Heritage Resources Agency* (SAHRA) and its provincial offices and counterparts. Section 38 of the NHRA requires a Heritage Impact Assessment (HIA), to be conducted by an independent heritage management consultant.

The proposed Fort West development is located in a "brownfields" environment (relic farm land) where significant heritage features exist. The relic farm land (100 ha western site section) contains ruins of stone structures and a quarry (the latter probably associated with the fort). The 100 ha western section of the development site was earmarked to become a heritage conservation area and was surveyed for this purpose in 1994 and named Fort 646 JR, with Portion 1 consisting of portions of the Remainder of



Portion 64 of Broekscheur 318 JR and Portion 226 of Pretoria Town and Townlands 351 JR, and Portion 2 the fort itself. This conservation area has not yet been proclaimed.

Three (3) regional cemeteries exist in the area. The *Lotus Gardens Cemetery* is located directly adjacent to the south-eastern boundary of the application site. The development proposal for Fort West has at the planning stage, accommodated the extension of this cemetery into the Fort West development area.

The development site is owned by the Republic of South Africa and is managed by the Gauteng Department of Infrastructure (Works). It is a site managed by Gauteng and therefore directly involves the Gauteng Provincial Heritage Resources Authority (PHRAG), which falls under the provincial Department of Arts, Culture, Sport and Recreation.

### ***Possible Impacts***

Urban development can unearth and impact artefacts of heritage, cultural or archaeological significance. The location of informal graves on the site must be managed according to *National Heritage Resources Act* (Act 25 of 1999)

Specialists in the fields of heritage and archaeology will be appointed to conduct the Impact Assessments for the project. These reports will form part of the EIA report, and the findings of the specialists inputs will be incorporated in the EIA report. Because of the location of the project, authorisation will be given, based on the final HIA report with accompanying documentation, by the Gauteng Provincial Heritage Resources Authority (PHRAG). A copy of the final report will also be submitted to the SAHRA Archaeology, Palaeontology and Meteorites Unit (Cape Town) for comments.

## **5.8 Socio Economic Environment**

CoT is made up of 76 community wards, which are divided into five administrative regions (CoT IDP, 2009). The five regions are:

- Southern Region (Centurion, Olivenhoutbosch area)
- North West Region ( Akasia, Soshanguve area)
- Eastern Region (Garsfontein, Mamelo)
- North East Region (Hammanskraal area)
- **Central Region (Inner-City, Atteridgeville area)**

CoT is characterised by a rapidly growing population. The projected annual growth of the population between 1996 and 2001 Community Survey (CS), the population CoT's Household Survey 2008 indicates a growth of 3.4%



The situation is exacerbated by immigration, resulting in an increase of informal settlements and an estimated 26.8% of all households residing in informal housing.

Demographics of a study area are important to ensure that new developments will complement the existing land uses.

Pretoria West is one of the oldest areas of the Capital. Pretoria West is characterised by some of the most historic buildings in Pretoria. The Fort West area forms part of the *Atteridgeville and Lotus Gardens ISDF*. The *Atteridgeville - Lotus Gardens* population is in the order of approximately 172 000 people. According to the 2001 census, 88,9% of this population is black, 8.8% are white, 1.8% are Indian, and 0.5% are coloured. The dominant language in the region is Sepedi.

Most of the people living in the surrounding neighbourhoods live in formal housing, with the exception of the Atteridgeville informal settlement. Kwaggasrand and Wespark have a small percentage of high rise flats and apartments. Regarding the gender composition of the study area, the 2001 census results revealed that the percentage of males (50.7%) is larger than the females (49.3%). The age group of people in the Lotus Gardens area is between 0 and 19 years of age. Given this young age category, it is clear that educational and health care facilities (family planning) must be provided in the area, as part of any new development.

The unemployment rate in the Lotus Gardens area is high, averaging at 37%. Hence, any new development in the area must bring in job opportunities. Modes of transport must accommodate pedestrians to schools and places of work, or taxi ranks.

The most dominant industries / places of employment in the *Atteridgeville and Lotus Gardens area*, is social and personal services (27%), followed by wholesale and retail services (18%), and manufacturing (13%). People in the informal areas are predominantly employed as private household workers and construction workers.





## 6. PUBLIC PARTICIPATION

In terms of the E1A Regulations (2010), a Scoping Report must contain: 28. (1) A scoping report must contain all the information that is necessary for a proper understanding of the nature of issues identified during scoping, and must include — (h) details of the public participation process conducted in terms of regulation 27 (a), including (i) the steps that were taken to notify potentially interested and affected parties of the application; (ii) proof that notice boards, advertisements and notices notifying potentially interested and affected parties of the application have been displayed, placed or given; (iii) a list of all persons or organisations that were identified and registered in terms of regulation 55 as interested and affected parties in relation to the application; and (iv) a summary of the issues raised by interested and affected parties, the date of receipt of and the response of the EAP to those issues; (k) copies of the minutes of any meetings held by the EAP with interested and affected parties and other role players which record the views of the participants; and (l) Any responses by the EAP to those representations and comments and views.

### 6.1 Introduction

Public participation is vitally important in the compilation of a scoping report as well as the planning, design and implementation of the project. Public participation is a process leading to informed decision-making, through joint effort by the:

- Applicant;
- Technical experts;
- Governmental authorities; and
- Interested and Affected Parties (I&APs).

Public participation allows for the public to contribute towards the proposed development, which achieves the following:

- Facilitates negotiated outcomes;
- Creates trust and partnership;
- Minimises negative effects;
- Maximises positive effects;
- Provides an indication of issues, which may:
  - Prevent the project continuing;
  - Cause costly delays later; and
  - Result in enhanced and shared benefits.

The objective of Public Participation is to allow for a communication structure through which sufficient and comprehensible information can be provided to I&AP's and to allow them to respond accordingly.



ACE Environmental Solutions conducted the public participation for the proposed development of Fort West Phase 2 Development. All comments raised from the public participation process have been incorporated into this Final Scoping Report.

## **6.2 Public Participation Facilitation:**

The following process was undertaken to facilitate the public participation for the proposed residential development of Fort West Phase 2 Development, which commenced on 29 November 2011

### **6.2.1 Newspaper Advertisement**

An advertisement, notifying the public of the scoping process and requesting I&AP's to register their comments with ACE Environmental Solutions, was placed in the Tshwane Sun Atteridgeville Refer to **Appendix B**

### **6.2.2 Site Notice**

ACE Environmental Solutions has placed 3 site notices at different visible locations around the selected site of the proposed Fortwest phase 2 development. This enables Ace to inform the surrounding communities and adjacent landowners of the proposed development. Refer to **Appendix C**

### **6.2.3 Direct notification of I&AP's**

Key stakeholders, which included the following sectors, were directly informed of the proposed development by e-mail and fax on 29 November 2011.

- Authorities;
- Service providers;
- Residential Associations; and
- Non-governmental organizations.

Refer to **Appendix D**



#### 6.2.4 Hand – delivered notifications

Adjacent Landowners have been informed of the proposed development by the means of hand delivered letters. These letters were delivered on 29 November 2011 Please refer to **Appendix D**

I&AP's were given 40 days to comment and / or raise issues of concern regarding the proposed development. The comment period expired on 24 January 2012

#### 6.2.5 I&AP correspondence

I&AP comments / concerns were acknowledged and included in an Issues and Response Report, and has been addressed in the Final Scoping Report accordingly.

**The following issues were raised:**

- **Service Providers:** Eskom and Sasol Gas not affected
- **Existing community Members:** No Comments received from any community member of adjacent land owners. Although no official person had registered as an interested and effected party or supplied ACE with comments, it was identified, through informal discussions with the community, that certain issues related to re-housing and land ownership were raised. ACE has advised that a formal meeting be scheduled with the community and the Applicant with the facilitation of the EIA team during the EIA phase.
- **State Departments:** An official notification has been received from DWA. **Please see Appendix E**

No other official comments were received. All comments received has been inserted under **Appendix E** and is to be made available to all I&AP's for a further 21 day period as per the PPP Guidelines of NEMA Act, Act 107 of 1998 for a further commenting period commencing on the 25 of January and ending the 16 of February.

#### 6.2 6 Public Review of Documents

All relevant reports listed below will be made available to all registered I&AP's for a period of 30 days which allows for review and comment.

Dates and venues of the availability of the report will be communicated to registered I &AP's accordingly:

Relevant Reports:

- Draft Scoping Report and Plan of Study for EIA; and
- Final Scoping Report and Plan of Study for EIA
- Draft Environmental Impact Report (EIR) and Environmental Management Plan (EMP)



## 7. 7 PLAN OF STUDY FOR EIA

A Plan of Study for EIA, which sets out the proposed approach to the environmental impact assessment of the application, must include:

- A description of the tasks that will be undertaken as part of the EIA process, including any specialist reports or specialised processes, and the manner in which such tasks will be undertaken;
- An indication of the stages at which the competent authority will be consulted;
- A description of the proposed method of assessing the environmental issues and alternatives, including the option of not proceeding with the activity;
- Particulars of the public participation process that will be conducted during the environmental impact assessment process, and
- Any specific information required by the competent authority.

### 7.1 Description of tasks that will be undertaken

#### *Task 1*

##### **Specialist Studies.**

Specialist studies identified during the Scoping Phase, and any additional studies that may be required by the authorities, are undertaken as the initial phase of the EIA. The relevant specialists are appointed to undertake the various assessments. Specialists gather baseline information relevant to the study being undertaken and assess impacts associated with the development. Specialists also make recommendations to mitigate negative impacts and optimise benefits. The resulting information is synthesised into the Environmental Impact Report (EIR).

#### *Task 2*

##### **Environmental Impact Report (EIR).**

The main purpose of this report is to gather environmental information and evaluate the overall impacts associated with the project, to consider mitigation measures and alternative options, and make recommendations in choosing the best development alternative. The EIR also identifies mitigation measure/management recommendations to minimise negative impacts and enhance benefits. The EIR and associated reports are made available for public and authority review and comment. The availability of the report is advertised in the local newspaper and is situated at an easily accessible location.



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*Task 3*

**Comments Report.**

The comments report compiles comments, issues and concerns raised by I&APs and the authorities during the review period.

*Task 4*

**Environmental Management Programme (EMP).**

The EMP provides guidelines to the proponent and the technical team on how to best implement the mitigation measure/management recommendations outline in the EIR during the construction and operational phase.

*Task 5*

**Public Participation Process.(PPP)**

A Public participation process will be conducted at which time the findings of the in-depth investigations will be presented to the I&AP's to obtain comments and issues raised. Agreement will be reached with the I&AP's that the EIA addresses all issues and concerns.

The following steps are envisaged:

- Notification of all I&AP's registered to date that the EIA process is commencing;
- Notification of all I&AP's informing them of the release of the draft EIR;
- Release of the draft EIR for public review;
- Facilitating a public participation meeting;
- Where necessary, focus group meetings will be held with key stakeholders to present specialist findings and discuss the results of the EIR;
- Notification of I&AP's of the Record of Decision and Appeals procedure and period, and
- Notification of I&AP's of the outcome of the Appeals period.

The Public Participation Process is continued. Opportunities are provided for I&APs to raise issues, concerns and comments regarding the proposed project. At this stage it is possible that some of the project details may have changed in response to the preliminary findings of the Draft Scoping Report. I&AP's and key stakeholders are given the opportunity to review the Draft EIR before it is submitted to the authorities for consideration. Comments on the Draft EIR are included and addressed in the Final EIR.

## 7.2 Aim of the Impact Assessment

Based on the findings of the in-depth studies the environmental impacts will be identified and rated in terms of the:

- Cumulative impacts;
- The nature of the impact;
- The extent and duration of the impact;
- The probability of the impact occurring;
- The degree to which the impact can be reversed;
- The degree to which the impact may cause irreplaceable loss of resources, and
- The degree to which the impact can be mitigated.

The EIA must achieve the following:

- Provide an overall assessment of the social and biophysical environments affected by the proposed project;
- Assess potentially significant impacts associated with the identified power line routes and the substation localities, and provide a comparative assessment of the alternatives identified
- Identify and recommend appropriate mitigation measures for potentially significant environmental impacts
- Nominate a preferred alternative for consideration by the Approving Authorities in the decision making process
- Undertake a fully comprehensive public participation exercise to ensure that I&AP's are afforded the opportunity to participate, and that their issues and concerns are recorded.

## 7.3 Specialist Studies

All specialist studies will be undertaken in compliance with regulation 32 of GNR 543, and will include:

(a) details of —

(i) the person who prepared the report; and

(ii) the expertise of that person to carry out the specialist study or specialised process;

(b) a declaration that the person is independent;

(c) an indication of the scope of, and the purpose for which, the report was prepared;

(d) a description of the methodology adopted in preparing the report or carrying out the specialised process;

(e) a description of any assumptions made and any uncertainties or gaps in knowledge;



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- (f) a description of the findings and potential implications of such findings on the impact of the proposed activity, including identified alternatives, on the environment;*
- (g) recommendations in respect of any mitigation measures that should be considered by the applicant and the competent authority;*
- (h) a description of any consultation process that was undertaken during the course of carrying out the study;*
- (i) a summary and copies of any comments that were received during any consultation process; and any other information requested by the competent authority.*

### 7.3.1 Ecological Impact Assessment

The assessment will follow on from the previous Ecological Assessment conducted for the greater Fort West area by Scientific Aquatic Services CC in April 2010. Ideally SAS will be appointed to update their assessment.

The study will comprise a desktop study of all available relevant literature. A detailed survey of the site will be undertaken to determine the possibility of there being listed threatened or protected ecosystems and species on the proposed project site. If any of these are found, the specialist report will include recommended measures to remove or otherwise protect plant species found on the site that are afforded protection under the National Environmental Management: Biodiversity Act during construction.

Specific outcomes required from the report will include the following:

- Habitat and community classification, including a description of the ecological state of the property.
- Faunal and floral inventories for the study area.
- Determine the presence of any red data species (fauna and flora) and the potential for such species to occur on the property.
- Discuss the spatial significance of the property and provide recommendations if required.
- The identification of any sensitive habitat (wetland, ridge or primary grassland).
- Identification of areas of high biodiversity;
- Identification of the presence of species of special concern, including sensitive, endemic and protected species;
- Habitat associations and conservation status of the identified fauna and flora;
- Review relevant legislation, policies, guidelines and standards.
- An assessment of the potential direct and indirect impacts resulting from the proposed development;
- A detailed description of appropriate mitigation measures that can be adopted to reduce negative impacts for each phase of the project, where required.



### 7.3.2 Heritage Impact Assessment

The Fort West Phase 2 development has got heritage value. An archaeological impact assessment will therefore be conducted, the primary objective of which is to determine the level of archaeological significance. Furthermore, a Heritage Impact Assessment will be undertaken in order to assess the impacts and significance in terms of culture and heritage found on the site, and propose mitigation measures.

The terms of reference for these assessments will include, but not be limited to:

- Conduct a desk-top investigation of the area;
- Conduct a site visit to the proposed development site;
- Identify possible archaeological, cultural and historic sites within the proposed development areas;
- Determine the likelihood of archaeological remains of significance in the proposed site;
- Identify and map (where applicable) the location of any significant archaeological remains;
- Assess the sensitivity and significance of archaeological remains in the site; and
- Identify mitigatory measures to protect and maintain any valuable archaeological sites and remains that may exist within the proposed site.
- Evaluate the potential impacts of construction, operation and maintenance of the proposed development on archaeological, cultural and historical resources; and
- Recommend mitigation measures to ameliorate any negative impacts on areas of archaeological, cultural or historical importance.

The following proposed methodology will be undertaken:

- The investigation will include a survey of the available literature in order to review previous research and to determine the potential of the area;
- Various databases will be consulted. These include the Archaeological Data Recording Centre (ADRC), housed at the National Cultural History Museum, Pretoria and the Environmental Potential Atlas;
- The topo-cadastral and other maps will also be studied. Similarly, aerial photographs, if available, will be studied;
- The study area will be inspected. Special attention will be given to archaeologically sensitive areas, e.g. outcrops (for stone walled sites and rock engravings), hills (for settlements and rock shelters), river banks (for Iron Age settlements), etc.
- All sites, objects and structures that are identified will be documented according to the general minimum standards accepted by the archaeological profession; and
- Coordinates of individual localities will be determined by means of the Global Positioning System (GPS) and plotted on a map.



### **7.3.3 Traffic Impact Assessment**

A detailed assessment of road infrastructure to accommodate the proposed development is required for presentation during the EIA.

### **7.3.4 Storm Water Plan**

Compile a Stormwater Management Plan for the development which ensures the integrity of the flood line is maintained or improved

### **7.3.5 Planning Framework and Bulk Services**

Planning of the proposed development in terms of municipal frameworks has been demonstrated. The availability and provision of bulk services to accommodate the proposed development will be planned to precision. The EIA will contain an engineer's design of roads and services.

### **7.3.6 Environmental Management Plan (EMP)**

A Draft Environmental Management Plan needs to be compiled in order to manage and mitigate the potential environmental impacts associated with the construction and operational phases of the development.

## **7.4 Environmental Impact Assessment Report (EIAR)**

Once the specialist investigations have been completed and the findings and recommendations integrated by the team, an EIAR will be prepared according to Government Notice R543, Section 31 to 33 and will include the following:

- A description of the EAP who prepared the report;
- A detailed description of the proposed activity and alternative routes;
- A description of the environment that may be affected;
- A description of the PPP that was undertaken;
- A description of the need and desirability of the project and details of the alternatives that were investigated;
- Findings and recommendations of specialist studies;
- An indication of the method used to identify significance;
- A comparative assessment of all alternatives;
- An assessment of each potentially significant impact;
- An opinion of whether the activity should be authorised or not, and if it should be authorised, and conditions that should be made in respect of the authorisation;
- An Environmental Impact Statement; and
- A draft EMP.
- The EIR will examine the 'No Go' alternative along with the proposed development, as required in the EIA regulations.



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## 7.5 Impact Assessment Criteria

Nature of impact	
Positive	Impact will have a beneficial effect on the environment
Negative	Impact will have an adverse effect on the environment
Neutral	Positive and negative impact
Extent of impact	
Immediate	Effect will be limited to the extent of disturbance of the activity
Boundary	Effect limited to within the proposed mine boundary area
Surrounding	Effect will occur outside of the proposed mine boundary area, but within 3 km
Local	Effect limited to within 3-5 km of the proposed mine boundary area
Regional	Effect will have an impact on a regional scale
Duration of impact	
Intermittent	Effect will occur periodically throughout the life of the activity
Short	Effect lasts for a period 0 to 5 years
Medium	Effect continues for a period between 5 and 10 years
Long	Effect will continue for more than 10 years but will cease after the operational life of the activity either because of natural processes or by human intervention
Permanent	Where mitigation either by natural process or by human intervention will not occur in such a way or in such a time span that the impact can be considered transient
Probability of occurrence	
Improbable	Effect has a low likelihood of occurring
Probable	Effect has a medium likelihood of occurring
Highly probable	Effect has a high likelihood of occurring
Definite	Will occur regardless of any prevention measures

Significance of predicted impact (i.e. before mitigation)	
Negligible	Where the impact is so small it is barely detectible
Low	Where the impact will have a relatively small effect on the environment and will require minimum or no mitigation
Medium	Where the impact can have an influence on the environment and should be mitigated
High	Where the impact will definitely influence the environment and must be mitigated as far as practicable
Significance of residual impact (i.e. after mitigation)	
Negligible	Where the impact is no longer detectible after mitigation
Low	Where the impact will have a relatively small residual effect on the environment after mitigation, and will diminish over a period of 0 to 5 years due to the re-establishment of natural processes or ongoing active mitigation
Medium	Where the impact would still occur on the environment, but to a lesser extent after mitigation, and will diminish over a period of 5 to 10 years due to the re-establishment of natural processes or ongoing active mitigation
High	Where the impact will definitely influence the environment, even after mitigation, and will diminish over a period longer than 10 years due to the re-establishment of natural processes or ongoing active mitigation

The assessment shall highlight the potential development consequences if no measures are applied to mitigate the impacts. The management objectives, design standards etc, which, if achieved, can eliminate, minimise or enhance potential impacts or benefits, shall, wherever possible, be expressed as measurable targets. National standards or criteria are examples, which can be stated as mitigation objectives. The objectives shall be reported as concise statements.

### 7.5.1 Mitigation Measures

Specialist mitigation measures will be recommended in order to enhance benefits and minimise negative impacts and they should address the following:

#### Mitigation objectives: What level of mitigation must be aimed at?

For each identified impact, the specialist must provide mitigation objectives (tolerance limits) which would result in a measurable reduction in impact. Where limited knowledge or expertise exists on such tolerance limits, the specialist must make an "educated guess" based on his / her professional experience.



## Recommended mitigation measures

For each impact the specialist must recommend practical mitigation actions that can measurably affect the significance rating. The specialist must also identify management actions, which could enhance the condition of the environment. Where no mitigation is considered feasible, this must be stated and reasons provided.

## Effectiveness of mitigation measures

The specialist must provide quantifiable standards (performance criteria) for reviewing or tracking the effectiveness of the proposed mitigation actions, where possible.

## Recommended monitoring and evaluation programme

The specialist is required to recommend an appropriate monitoring and review programme, which can track the efficacy of the mitigation objectives — if required. Each environmental impact is to be assessed before and after mitigation measures have been implemented. The management objectives, design standards etc., which, if achieved, can eliminate, minimise or enhance potential impacts or benefits must, wherever possible, be expressed as measurable targets. National standards or criteria are examples, which can be stated as mitigation objectives.

Once the above objectives have been stated, feasible management actions, which can be applied as mitigation, must be provided. A duplicate column on the impact assessment tables described above should indicate how the application of the proposed mitigation or management actions has reduced the impact. If the proposed mitigation is to be of any consequence, it should result in a measurable reduction in impacts (or, where relevant, a measurable benefit).

ACE shall integrate the findings of the specialist reports into the EIA report. The result of this integration and understanding of the cumulative impacts, will provide the decision making authority (GDARD) with the information required to deliver an informed decision on the application.

### 7.5.2 Stakeholder Engagement

Public and stakeholder involvement in the EIA process is widely recognised as being an *essential* component of the EIA process. The input and contribution added to the process, by public comment and involvement, leads to better and more acceptable decision-making. The involvement of interested parties, adjacent land owners, NGO bodies and rate payers associations, can help to identify whether all impacts have been included and whether all risk groups have been identified.



The engagement process will provide stakeholders with the opportunity to raise their issues and concerns and to interact on a one-on-one basis with the project team. *Phase 2* of the PPP will entail *inter alio* the following

- Update the existing stakeholder database, following the review of the draft scoping report by registered IAP's, and the review of the final scoping report by GDARD;
- Announcement of the EIA phase of the project, which entails the following:
  - Distribution of Letters and BIDs to all registered I&APs via email, fax or post;
  - Hosting Public Meetings (if necessary);
  - Integration of comments into a Comments and Response Report;
  - Interested and Affected Parties (I&AP) Identification during the EIA Phase The existing Interested and affected parties categories includes, *inter alia*:
    - Parastatal's;
    - Provincial Authorities (Gauteng);
    - Local Authorities; (Mogale)
    - Adjacent Landowners;
    - Ward Councillors;
    - DWAF;
    - SAHRA;
    - Non-governmental Organisations (WESSA); and
    - Other

## **I&AP Communication**

Registered I&AP's shall be informed of the approval or rejection of the final scoping report, and will be encouraged to continue their active participation in the EIA process by staying involved in the process, and commenting on the scoping report approval conditions / requirements.

Each issue, concern, question identified through communication with ACE Environmental Solutions, will be included in the Comments Register and appropriately addressed.

## **Public Participation Report**

A Public Participation Report will form part of the EIA report. This report will be the updated version of the PP report already contained in the final scoping report.

### *Comments received from I&AP's*

The comments received from I&AP's will be captured and included in the PP report throughout the EIA process. The PP report will include all comments, concerns, questions and statements recorded by



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ACE, during the duration of the project. The name(s) of the person(s) who raised the issue will appear in the report.

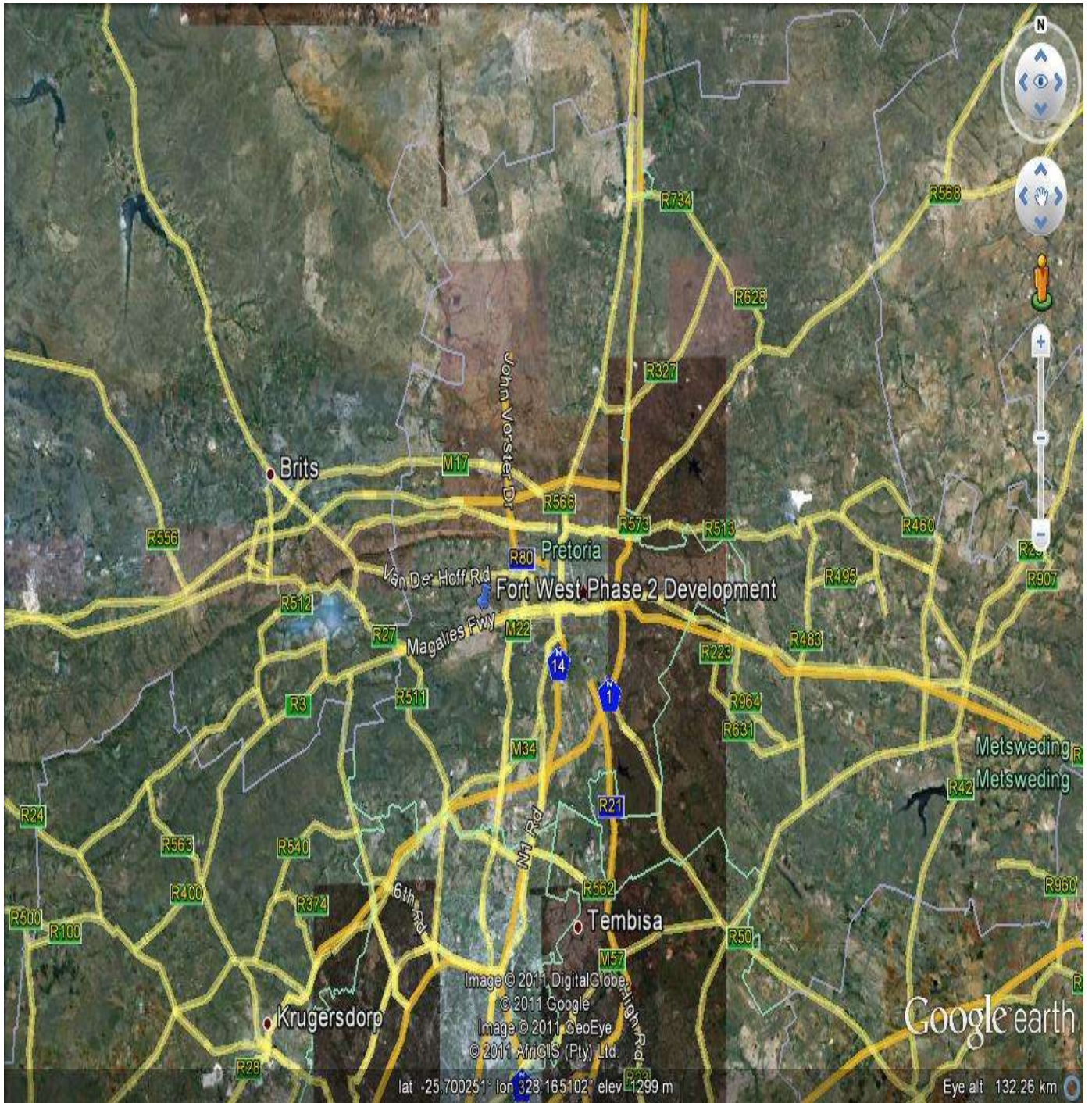
### **Public Review of the Draft EIR**

The draft EIR will be published for public comments at the same locations as the draft scoping report. Hard copies of the report will also be provided to Provincial Authorities, ie DWAF, SAHRA, CTMM. The review period of the Draft EIR will be communicated with the I&AP's.





## Appendix A Locality Map





## Appendix B Newspaper Advertisement





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END NOVEMBER 2011

TSHWANE SUN ATTERIDGEVILLE

PAGE 11

## Tshwane Sun intervenes...and resident gets brand-new house!

by Godfrey Chauke

Mosibudi Matlala, from Ext 7 in Saulsville, will never live in a crumbling house again...

Not now that the council has built her a brand-new RDP house, after she complained that the old house that she was living in was collapsing - as a result of being built on a sewage pipe.

Matlala's brand-new house was presented to her by the Tshwane mayor, Kgosietso 'Sputla' Ramokgopa, and other council officials on November 21.

Matlala had complained to the *Tshwane Sun* in the past that she had been reporting her grievances to the council about her crumbling house...to no avail.

She said it was crumbling and posed a threat to her life; it could have collapsed while she was asleep inside. Matlala claimed that her ward councillor and the council were sending her from pillar to post, instead of building her a new house.

After we exposed the ward councillor concerned - and wrote about the council not taking her matter seriously - the council wasted no time and started making arrangements for a new house to be built in her yard. One has to wonder - if we didn't publish her story, would she still be living inside her old house?

Among those who attended the event when Matlala was presented with her new house were ward 68 councillor, Victor Rambau, MMC for housing Joshua Ngwenyama and other council officials.

Ngwenyama said that, after they saw Matlala's complaint about her house collapsing in the *Tshwane Sun*, they decided to build her a new house ...'because the government is determined to improve the lives of the people'.

"We decided to build her a new house to prove that we are determined to bring service delivery to the people," said Ngwenyama.

The council will obliterate her old house to make sure that she doesn't use it to generate income by renting it out to unsuspecting tenants.

Ramokgopa said he was delighted that the council has finally given Matlala a new house: "It shows that the government is determined to bring service delivery to the people and people have to see the good work that that the government is doing for its people. We are committed to improving the lives of the people," he said.

Matlala told the *Tshwane Sun* that she was ecstatic that she would no longer have to stay in a house that was collapsing, and would not be residing in a safe and new abode.

"My previous house was posing a massive threat to our lives and could have collapsed while I was inside," she said.



Mosibudi Matlala opens the door to her new home as Tshwane mayor, Sputla Ramokgopa, looks on.

Your solution to any environmental challenge.



**RE: Environmental Impact Assessment: Public Participation Process for Fortwest Mixed Land Use Development GDAR Reference No: Gaut: 002/11 12/E0165.**

### Application for Environmental Authorisation to undertake the following activities

Scip Engineering Pty (Ltd), the applicant, has Appointed ACE Environmental Solutions as the competent Environmental Assessment Practitioner to apply for Environmental Authorisations as per the Environmental Impact Assessment Regulations 2010, promulgated in terms of the National Environmental Management Act, 1998 (Act 107 of 1998) (as amended) (GNR544) Listing Notice 1, 9,10,11,12. (GNR545). Listing Notice 15, 18. (GNR546) Listing notice 4,10,14.

### Proposed project/development:

Proposed Mixed Use land use Township Development for Fortwest Development PHASE 2. Land uses envisaged include Residential uses, High Density residential uses, Community Facilities that will include a police station, post office, sport stadium and clinic, Offices that will also include medical suites, estate agents and a veterinary, Public Open Space. This will include the open space provided next to the ridge, the stream, the sport stadium and then provision will also be made for community parks, Institutional. One primary school and secondary school will be provided. Provision will also be made for at least 4 crèches and 4 Places of Public Worship, Retail facilities which will accommodate public transport.

### Location:

The proposed development area is situated on the Farm Fort 646 JR. The size of the Farm Fort 646 JR is approximately 389, 4278 (three hundred eighty nine comma four two seven eight) hectares in extent.

The above farm was later subdivided again and Phase 2 of the proposed Fort West development will consist of the following Portions

Portion 2 of the farm Fort 646 JR  
Portion 3 of the farm Fort 646 JR  
Remaining Extent of the Farm Fort 646 JR

Situated in the western Sector of city of Tshwane GPs co ordinates:

Latitude (S) 25.737141 Longitude (E) 28.080066°

Interested and affected parties (I&APs) are invited to provide written comments. I&APs should refer to the GDARD reference numbers above, and must provide

their comments together with their name, contact details (preferred method of notification, e.g. e-mail address or fax number) and an indication of any direct business, financial, personal or other interest which they have in the application to the contact person indicated below within 30 days from the date of this notice.

Should you have any further queries please call Gerhardus Uys on 0714706772 or fax to 086 565 9264. Alternatively E-mail [j.g@ace-environmental.co.za](mailto:j.g@ace-environmental.co.za) / [monique@ace-environmental.co.za](mailto:monique@ace-environmental.co.za)





## Appendix C Site Notice



Close-up Notice Board



On-site Notice 1



On-site Notice 2



## Appendix D IAP's Notification Letter





## Appendix E

### Comments Received from I&AP's



## Appendix F GDARD application acceptance