

**APPLICATION FOR AMENDMENT OF  
AUTHORISATION  
IN TERMS OF THE  
NATIONAL ENVIRONMENTAL  
MANAGEMENT ACT, 1998  
(ACT 107 OF 1998)**

**DRAFT IMPACT REPORT**

**PROJECT:**

**ROSSLYN HUB:**



**Environmental Consultant:**

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## 1. INTRODUCTION AND PURPOSE OF THE REPORT

Big Cedar Trading 22 (Pty) Ltd received an Environmental Authorisation (EA) on 18 July 2007 from the Department of Agriculture, Conservation and Environment now known as Department of Agriculture and Rural Development (GDARD) (Reference Number: GAUT 002/05-06/0652) for the development of a township at Rosslyn. See Annexure A – Environmental Authorisation.

The EA was amended on 11 February 2016 from Big Cedar Trading 22 (Pty) Ltd to Cosmopolitan Projects Tshwane (Pty) Ltd, See Annexure B – Amended Environmental Authorisation. Rosslyn Hub Development Company (Pty) Ltd is part of Cosmopolitan Projects Tshwane (Pty) Ltd who is the client (applicant).

The project is located on Portion 1 of the farm Klipfontein 268 JR (to be known as Rosslyn Extensions 40, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58 and 67), located in the City of Tshwane Metropolitan Municipality, Gauteng Province. See Annexure C – Locality Map.

The developer, Rosslyn Hub Development Company (Pty) Ltd, wants to develop a filling station and motor showrooms with motor retail on Erven 3282 & 3283 Rosslyn Extension 52 which is zoned Special, See Annexure D – Site Layout Plan.

The developer did originally not apply for a filling station when the Environmental Impact Assessment (EIA) study was submitted in 2007.

An application to amend the authorisation will be submitted to GDARD to make provision for the development of a filling station. The proposed filling station will consist of a combined storage capacity of 78 cubic meters.

A Geotechnical Study was done on Erven 3282 & 3283 Rosslyn Extension 52 to assist with the identifying and assessing all potential environmental impacts related to the change in the development specifications. See Annexure E – Geotechnical Study Report.

A Feasibility and Impact Study was also done for the proposed filling station. See Annexure F – Feasibility and Impact Study.

Rosslyn Hub Development Company (Pty) Ltd appointed Tekplan Environmental as an independent Environmental Assessment Practitioner to apply for the amendment of the EA at GDARD.

## 2. NEED AND DESIRABILITY OF THE PROPOSED PROJECT

A Feasibility and Impact Study was done for the proposed filling station, See Annexure F.

It was observed that there is an annual increase of traffic on the road R566 of 2%. It is assumed that this rate will be applicable for the operational life cycle of the proposed filling station.

The site is feasible from a fuel sales viewpoint, based on the expected fuel- and convenience store sales.

The impact on any of the existing sites will not be enough to impact on the feasibility of any of the individual sites. General traffic growth in the area will ensure short term losses will be regained within 3 to 4 years. The most affected site will be the closest existing competitor site: Total Ernest Oppenheimer Road.

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### 3. AUTHORITIES, LEGAL CONTEXT AND ADMINISTRATIVE REQUIREMENTS

#### 3.1 REGULATORY AUTHORITIES

##### 3.1.1 National Authorities

At national level, the main regulatory authorities and agencies are:

- *Department of Energy (DoE)*: The DoE is competent and responsible for policies related to filling stations. Owners of filling stations must apply for the necessary retail licences at DoE in terms of the Petroleum Products Act, 1977 (Act No. 120 of 1977);
- *Department of Environment, Forestry and Fisheries Affairs (DEFF)*: The DEFF is competent and responsible for all environmental policies and is the controlling authority in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and EIA Regulations, 2014, as amended;
- *South African Heritage Resources Agency (SAHRA)*: SAHRA is responsible for the protection and the survey, in association with provincial authorities of listed or proclaimed sites, such as urban conservation areas, nature reserves and proclaimed scenic routes in terms of the National Heritages Resources Act (Act no. 25 of 1999);
- *South African National Roads Agency Limited (SANRAL)*: SANRAL is responsible for all National road routes.
- *Department of Water and Sanitation (DWS)*: The DWS's overall responsibility for and authority over the nation's water resources and their use, including the equitable allocation of water for beneficial use, the redistribution of water and international water matters.

##### 3.1.2 Provincial Authorities

At provincial level, the main regulatory authority is the Gauteng Department of Agriculture and Rural Development (GDARD); this Department is responsible for environmental policies and is the Provincial authority in terms of NEMA and the EIA Regulations. The Department is also the competent authority for the proposed project.

##### 3.1.3 Local Authorities

At a local level, the local and municipal authorities are the principal regulatory authorities responsible for planning, land use and the environment. In the Gauteng Province, Municipalities and District Municipalities are involved in various aspects of planning and the environment related to filling stations.

Under the terms of the Municipal System Act (Act no. 32 of 2000), all municipalities must go through an Integrated Development Planning (IDP) process in order to devise a five-year strategic development plan.

#### 3.2 LEGISLATION, REGULATIONS AND GUIDELINES

A review of the relevant legislation involved in the proposed development is detailed in table 1 below.

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**Table 1: Review of relevant legislation**

National Legislation	Sections applicable to the proposed project
Constitution of the Republic of South Africa (Act no. 108 of 1996)	<ul style="list-style-type: none"> <li>• Bill of Rights (S2)</li> <li>• Rights to freedom of movement and residence (S22)</li> <li>• Environmental Rights (S24)</li> <li>• Property Rights (S25)</li> <li>• Access to information (S32)</li> <li>• Right to just administrative action (S33)</li> </ul>
Conservation of Agricultural Resources Act (Act no. 43 of 1983)	<ul style="list-style-type: none"> <li>• Prohibition of the spreading of weeds (S5)</li> <li>• Classification of categories of weeds &amp; invader plants and restrictions in terms of where these species may occur (Regulation 15 of GN R0148)</li> <li>• Requirement and methods to implement control measures for alien and invasive plant species (Regulation 15E of GN R0148)</li> </ul>
Environment Conservation Act (Act no. 73 of 1989)	<ul style="list-style-type: none"> <li>• National Noise Control Regulations (GN R154 dated 10 January 1992)</li> </ul>
National Water Act (Act no. 36 of 1998)	<ul style="list-style-type: none"> <li>• Entrustment of the National Government to the protection of water resources (S3)</li> <li>• Entitlement to use water (S4) - Schedule 1 provides the purposes which entitle a person to use water (reasonable domestic use, domestic gardening, animal watering, fire-fighting and recreational use)</li> <li>• Duty of Care to prevent and remedy effects of water pollution (S19)</li> <li>• Procedures to be followed in the event of an emergency incident which may impact on water resources (S20)</li> <li>• Definition of water use (S21)</li> <li>• Requirements for registration of water use (S26 &amp; S34)</li> <li>• Definition of offences in terms of the Act (S151)</li> </ul>
National Forests Act (Act no. 84 of 1998)	<ul style="list-style-type: none"> <li>• Protected trees</li> </ul>
National Environmental Management Act (Act no. 107 of 1998)	<ul style="list-style-type: none"> <li>• Definition of National environmental principles (S2): strategic environmental management goals and objectives of government applicable within SA to actions of organs of state, which may significantly affect the environment</li> <li>• NEMA EIA Regulations, 2014, as amended.</li> <li>• Requirement for potential impact on the environment of listed activities to be considered, investigated, assessed and reported on to the competent authority</li> <li>• Duty of Care (S28): requirement that all reasonable measures are taken to prevent pollution or degradation from occurring, continuing and recurring, or, where this is not possible, to minimise and rectify pollution or degradation of the environment</li> <li>• Procedures to be followed in the event of an emergency incident which may impact on the environment (S30)</li> </ul>
National Heritage Resources Act (Act no. 25 of 1999)	<ul style="list-style-type: none"> <li>• SAHRA, in consultation with the Minister and the MEC of every province must establish a system of grading places and objects which form part of the national estate (S7)</li> <li>• Provision for the protection of all archaeological objects, paleontological sites and material and meteorites entrusted to the provincial heritage resources authority (S35)</li> </ul>

	<ul style="list-style-type: none"> <li>• Provision for the conservation and care of cemeteries and graves by SAHRA, where this is not responsibility of another authority (S36)</li> <li>• List of activities which require notification from developer to the responsible heritage resources authority, with details regarding location, nature, extent of proposed development (S38)</li> <li>• Requirement for the compilation of a Conservation Management Plan and permit from SAHRA for presentation of archaeological sites for promotion of tourism (S44)</li> </ul>
National Environmental Management: Biodiversity Act (Act no. 10 of 2004)	<ul style="list-style-type: none"> <li>• Provision for the Member of the Executive Council for Environmental Affairs/Minister to publish a list of threatened ecosystems and in need of protection (S52)</li> <li>• Provision for the Member of the Executive Council for Environmental Affairs/Minister to identify any process or activity which may threaten a listed ecosystem (S53) Provision for the Member of the Executive Council for Environmental Affairs/Minister to publish a list of: critical endangered species, endangered species, vulnerable species and protected species (S56(1) - see Government Gazette 29657</li> <li>• Three government notices have been published up to the present date: GN R150 (Commencement of Threatened and Protected Species Regulations, 2007), GN R151 (Lists of critically endangered, vulnerable and protected species) and GN R152 (Threatened Protected Species Regulations)</li> </ul>
National Environmental Management: Air Quality Act (Act no. 39 of 2004)	<ul style="list-style-type: none"> <li>• Provision for measures in respect of dust control (S32)</li> <li>• Provision for measures to control noise (S34)</li> </ul>
National Environmental Management: Waste Management Act (Act no. 59 of 2008)	<ul style="list-style-type: none"> <li>• Waste management measures</li> <li>• Regulations and schedules</li> <li>• Listed activities which require a waste licence</li> </ul>
Gauteng Nature Conservation Bill, 2014	<ul style="list-style-type: none"> <li>• Indigenous flora protected under this act</li> <li>• No hunting to take place without a permit</li> </ul>
Occupational Health and Safety Act (Act No. 85 of 1993)	<ul style="list-style-type: none"> <li>• Health and safety of all involved before and after construction must be protected.</li> </ul>
<b>Guideline Documents</b>	<b>Sections applicable to the proposed project</b>
South African National Standard (SANS) 10328, Methods for environmental noise impact assessments in terms of NEMA no. 107 of 1998	<ul style="list-style-type: none"> <li>• Impact of noise emanating from a proposed development may have on occupants of surrounding land by determining the rating level</li> <li>• Noise limits are based on the acceptable rating levels of ambient noise contained in SANS 10103</li> </ul>
Draft Guidelines for Granting of Exemption Permits for the Conveyance of Abnormal Loads and for other Events on Public Roads	<ul style="list-style-type: none"> <li>• The Guidelines outline rules and conditions related to transport of abnormal loads and vehicles on public roads and detailed procedures to be followed for the grant of exemption permits</li> </ul>

### 3.3 LISTED ACTIVITIES IN TERMS OF NEMA

The original application for Environmental Authorisation was done in terms of Regulations R1182 and R1183 (as amended) promulgated under Sections 21, 22, 26 and 28 of the Environment Conservation Act (Act 73 of 1989).

The EA amendment applied for here, will trigger the following listed activities as included in Listing Notices 1, 2 and 3 of the EIA Regulations, 2014, as amended. The “listed activities”

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Listing Notices 1, 2 and 3 of GN R 327, 325 and 324 of the EIA Regulations of 2014, as amended are included in Table 2.

**Table 2: Listed Activities in terms of EIA Regulations 2014 as amended, which will be triggered**

Relevant notice	Activity No.	Activity Description
R.324, 7 April 2017	10	<p><i>The development and related operation 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.</i></p> <p><b>c. Gauteng:</b></p> <p><b>iv. Sites identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng Conservation Plan or in bioregional plans.</b></p> <p>Amendment application: The client wants to construct a filling station on the proposed property. The following storage tanks with a combined storage capacity of 78 cubic meters will be installed:</p> <ul style="list-style-type: none"> <li>• 2x 23 000 litre tanks for petrol</li> <li>• 1x 23 000 litre tank for diesel</li> <li>• 1x 9 000 litre tank for diesel</li> </ul>
R.324, 7 April 2017	12	<p><i>The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</i></p> <p><b>c. Gauteng:</b></p> <p><b>ii. Within Critical Biodiversity Areas or Ecological Support Areas identified in the Gauteng Conservation Plan or bioregional plans.</b></p> <p>Approximately 20 000m<sup>2</sup> will be cleared for the proposed filling station and motor showrooms.</p>

#### 4. PROJEC DESCRIPTION AND DETAILS OF THE AMENDMENTS BEING APPLIED FOR

##### 4.1 AMENDMENTS BEING APPLIED FOR

The application for the amendment of the afore-mentioned EA is for the addition of a filling station. The combined storage capacity will be 78 000 litre. The current EA does not make provision for the construction of a filling station.

The Environmental Management Program (EMPr) and the site layout plan will be amended. An additional EMPr will be attached with the original approved EMPr, which will be relevant for the proposed filling station.

##### 4.2 PROJECT LAYOUT

GDARD has approved the following development on Portion 1 of the farm Klipfontein 268 JR (to be known as Rosslyn Extensions 40, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58 and 67), located in the City of Tshwane Metropolitan Municipality, Gauteng Province on 18 July 2007.

The proposed activity that was authorised is for change of land use from “Agriculture” to “Mixed Development” i.e. establish a mixed township comprising of:

- Residential 1 with approximately 682 erven;

- 2 erven 4 storey residential 3 at a density approximately 466 units (80 units per hectare);
  - Special for shops, offices, service industry and places of refreshments;
  - 2 erven reserved for school;
  - Industrial 1;
  - Public and private open space systems;
  - Special for parking;
  - Special for clubhouse;
- which falls within the ambit of sub regulation 2 (c) of Government Notice R1182 (as amended) promulgated under sections 21, 26 and 28 of the Act.

The proposed filling station and motor showrooms will be constructed on the two erven zoned for Special.

An amended site lay out plan is included in Annexure D.

## 5. STATUS QUO OF THE RECEIVING ENVIRONMENT

The receiving environment has been described using a combination of specialist inputs, on-site observations, a review of existing literature and utilizing Geographic Information Systems (GIS) planning tools.

### 5.1 PROPERTY DESCRIPTION AND CURRENT LAND USE

The project is located on Portion 1 of the farm Klipfontein 268 JR (to be known as Rosslyn Extensions 40, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58 and 67), located in the City of Tshwane Metropolitan Municipality, Gauteng Province. See Locality Map C.

The proposed development site falls within the industrial area of Rosslyn Extension 14, north west of Pretoria. The R566 borders the site to the south and Kitshoff Street borders the site to the east. Helium Road is to the north of the site.

Site coordinates: S25° 37' 23,8" E28° 04' 06,2"

The site is vacant and the area is covered with trees and grass.

### 5.2 ENVIRONMENTAL FEATURES

#### 5.2.1 Climate

The area experiences a mild climate, characterised by warm, moist summers and cool dry winters. Temperatures vary between -6°C and 40°C, with an average of 19°C. the summer rainfall is erratic and extremely variably, ranging from 450mm to 750mm.

#### 5.2.2 Topography and Drainage

According to the regional topographical information, the proposed site is situated at an altitude of approximately 1 240m above mean sea level. The site itself is relatively flat with a gradual dip in a southerly direction, estimated at 2% and 3%. No natural drainage or topographical extremes were encountered on the site. The surrounding areas dips in a westerly direction towards a perennial tributary of the Sand River.

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### 5.2.3 Soils and Geology

The geology of the study area is underlain by the Bushveld Igneous Complex according to the regional geological information. More specifically, the Basal Unit of the Complex is inferred. According to the regional information the Basal Unit at this location consists of norite, quartz norite, quartz gabbro and/or pyroxenitic norite. Norite is a plutonic, intrusive, basic, igneous rock with a mineral assemblage consisting predominantly of plagioclase and pyroxene. In the region of the project area, norite generally occurs as coarse grained, light grey to dark grey and often speckled white, very hard rock. The individual mineral grains can easily be discerned with the naked eye.

Though no unweathered bedrock was encountered in any trial pits, residual materials showed the tendency to grade into highly weathered bedrock. The residual materials complied with that of residual norite and hence it is expected that the underlying bedrock will constitute the same. No fault lines are indicated in close proximity to the study area.

### 5.2.4 Groundwater

**Perched Water:** No perched or seepage water was encountered in any of the trial pits. In addition, no clear indicators of ferruginisation were noted in the profile. Given the topographic position of the site, a limited catchment area is available for potential perched water. With all of this taking into account, it is unlikely that seasonal perched water will prove problematic within conventional founding depths.

**Permanent Water:** The probability of drilling successfully for water in the area is between 40% and 60% and if water is encountered, the chances are between 20% and 30% that the yield of such a borehole will exceed 2l/s. Groundwater that is present in the area is usually encountered at depths between 10m and 20m occurring in fracture zones in the bedrock.

### 5.2.5 Water Courses

The closest water course lies some 850m due west of the proposed development area. The water course consists of a perennial tributary of the Sand River which runs from south to north. The gradient in the vicinity of the site dips very gently to the west and towards the water course; however, there are no direct surface tributaries or features connecting the site to the water course.

### 5.2.6 Conclusions – Geotechnical Site Investigation

The following main conclusions were made, based on the geotechnical site investigation:

- **Geology:** The property investigated appears to be largely underlain by noritic bedrock of the Basal Unit of the Bushveld Igneous Complex. Residual soils and highly weathered bedrock confirmed the geology.
- **Soil Profiles:** The soil profiles encountered on site are fairly uniform and consisted of colluvium overlying a magnetite pebble marker and at least two distinctive horizons of residual norite.
- **Groundwater:** No perched groundwater or seepage was encountered in any of the trial pits. Perched water is not expected to prove problematic within conventional founding depths.
- **Founding Conditions:** The geotechnical zoning is classified as H2.

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- **Conditions of Excavations:** Conditions of moderate to hard/difficulties soil excavation characterise this site. Trial holes reached depths between 2400mm and 300mm, but gradual refusal of excavation was only encountered once.
- **Corrosivity:** In situ soils proved to be very corrosive on account of soil acidity and conductivity.
- **Environmental Considerations:** The risk of contaminating surface water sources or water courses is limited and low soil permeability limits the risk of sub-surface contaminant spreading, provided fuel storage tanks are monitored for leaks.
- **Dolomite Stability:** The area is non-dolomitic.

### 5.2.7 Ecology (Fauna & Flora)

The study area falls within a region classified as Clay Thorn Bushveld (Low and Rebelo, 1996). The vegetation is dominated by various *Vachellia* and *Senegalia* species: *V. tortilis*, *V. nilotica*, *V. karroo*, *V. tenuispina*, *V. gerrardii* and *S. nigrescens*. Other woody species often encountered include *Ziziphus mucronate*, *Dichrostachys cinerea* and *Grewia flava*. The principal grass species, in a dense sward, are *Ischaemum afrum*, *Setaria galpinii*, *Setaria incrassate* and *Panicum coloratum*. Overgrazing and deterioration of the grass sward causes a serious increase in cover of the woody species, with an associated dominance of *Bothriochloa insculpta*, *Aristida bipartita*, *Brachiaria eruciformis* and *Sorghum versicolor*.

The key environmental parameter of this vegetation type is the extremely clayed soils, which have a role in limiting the distribution of the thornveld.

**Amphibians:** The site provides habitat for terrestrial and aquatic amphibian species. Thus, of the 24 species of frog known to occur in Gauteng, 11 species may inhabit the site. No Red Data amphibians are expected to occur on site.

**Avifauna:** The study area provides an ideal habitat for bird species that have an affinity to grasslands and bushveld. No Red Data bird species are expected to occur on site.

**Mammals:** Due to the fact that the study area is situated within close proximity of a large urban area, the likelihood of encountering large mammal species is very low. Various species of Insectivora (e.g. shrews) and Rodentia (e.g. mice) may occur on site.

Photos of the proposed development site for the filling station is attached in Annexure G.

## 6. PUBLIC PARTICIPATION PROCESS

The process for an application for amendments to be applied for in terms of Part 2 is described in Regulations 31 and 32 of the EIA Regulations, 2014, as amended and include the following:

1. The compilation of an Impact Report, which should reflect the following:
  - an assessment of all impacts related to the proposed change;
  - advantages and disadvantages associated with the proposed change; and
  - measures to ensure avoidance, management and mitigation of impacts associated with such proposed change; and
  - any changes to the EMP.

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2. The draft impact report subjected to a public participation process, comprising of the following:

- All potential and identified Interested and Affected Parties were informed of the availability of the report. The report will be available for a 30-day commenting period.
- The draft report will be submitted to the GDARD for comments.
- The availability of the draft report was advertised in a locally published newspaper (The Daily Sun on 1 April 2021). See Annexure H.
- Poster notifications were put up on-site. See Annexure I.
- Flyers were handed out to the residents bordering Portion 1 of the farm Klipfontein 268 JR. See Annexure J.
- All potential and identified Interested and Affected Parties were informed of the availability of the report. See Annexure K.
- The Draft Impact Report will be submitted to various stakeholders to comment on. They will have 30 days to comment on the draft report.
- All comments and responses will be included in the final report, to the submitted to the GDARD.

## 6.1 RESULT OF THE PUBLIC PARTICIPATION PROCESS

Ms. M. Mahlatji registered as an Interested and Affected Party. See Annexure L. The draft impact report will be sent to Ms. Mahlatji to comment on.

Results of the public participation process will be included in the final impact report to be submitted to the GDARD.

## 7. IMPACTS THAT MAY RESULT FROM THE PLANNING AND CONSTRUCTION PHASE

### 7.1 METHODOLOGY UTILISED IN THE RATING OF SIGNIFICANCE OF IMPACTS

#### 7.1.1. Introduction

The impact assessment aims at identifying potential environmental impacts (both positive and negative impacts) and evaluating these impacts in terms of its significance. This assessment is provided in the form of a systematic analysis framework to evaluate the nature, intensity and significance of the various impacts are considered both without and with mitigation and management measures.

Certain actions will take place during the planning & construction and operational phases of the proposed development, which relate to the environment. These actions have potential to impact on adjacent land uses and the natural environment.

In view of this a preliminary list of potential environmental impacts (issues) were identified – these issues can be summarized as follows:

- a) Potential for the proposed development to impact on the biological environment (i.e. fauna & flora) - especially red data species, biological communities, bio-diversity, etc.,
- b) Potential for the proposed development to impact on the current utilisation of the

- application property,
- c) Availability of engineering infrastructure to support the sustainability of the proposed development (electricity and roads),
- d) Potential for the proposed development to impact upon current adjacent land uses (i.e. **during construction** e.g. nuisances, erosion, pollution, etc.),
- e) Potential for the proposed development to impact upon current adjacent land uses (i.e. **after establishment** e.g. social conflicts, pollution, visual quality of the landscape, waste generation, etc.),
- f) Potential for the proposed development to impact on heritage resources,
- g) Potential for the proposed development to impact on the physical environment (air e.g. dust, water e.g. increased storm water, land e.g. soil compaction),
- h) Potential for the proposed development to impact on "quality of life" and character of the surrounding area,
- i) Potential for the proposed development to impact on natural resources,
- j) Social dimensions of the proposed development (e.g. crime, security management, etc.).

Detailed studies on potentially significant impacts will be investigated for each aspect.

### 7.1.2. Impact Assessment Criteria

The assessment of the potential impacts of the envisaged development is undertaken in accordance with the broad criteria required by the integrated environmental management procedure and includes the following:

#### a. Nature of Impact

A brief description of the type of impact the proposed development will have on the affected environment.

#### b. Intensity

This criteria evaluates intensity of the impact and are rated as follows:

##### i. Minor

The activity will only have a minor impact on the affected environment in such a way that the natural processes or functions are not affected.

##### ii. Low

The activity will have a low impact on the affected environment.

##### iii. Medium

The activity will have a medium impact on the affected environment, but function and process continue, albeit in a modified way.

##### iv. High

The activity will have a high impact on the affected environment which may be

disturbed to the extent where it temporarily or permanently ceases.

v. Very high

The activity will have a very high impact on the affected environment which may be disturbed to the extent where it temporarily or permanently ceases.

c. Determination of significance:

Significance is determined through a synthesis of the various impact characteristics and represents the combined effect of the extent, duration, intensity and probability of the impacts.

i. No significance

The impact is not substantial and does not require any mitigatory action.

ii. Low

The impact is of little importance, but may require limited mitigation.

iii. Medium

The impact is of importance and therefore considered to have a negative impact. Mitigation is required to reduce the negative impacts to acceptable levels.

iv. High

The impact is of great importance. Failure to mitigate, with the objective of reducing the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation and management is essential.

## 7.2 DESCRIPTION AND COMPARISON OF THE POTENTIAL IMPACTS

Description and comparison of the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the construction phase for the various alternatives of the proposed development. This includes an assessment of the significance of all impacts.

An environmental impact analysis must always include some statement, definition and delineation of specific environmental 'problems'. Some judgements necessarily have to be made during the steps of predicting, analysing, and judging, environmental impacts - therefore this impact assessment has taken into account the following parameters during evaluation of the potential impacts that might result from the proposed development:

- the geographical area/extent of the impact (e.g. local, immediate, regional or national),
- status & intensity (positive (beneficial) or negative (detrimental)),

- significance (an impact of low significance will have only a limited effect on the environment, whereas an impact of high significance will have a major impact on the environment.),
- the probability of an impact (for example "definite", "highly probable", "probable" or "improbable"), and
- the duration of an impact.

In order to undertake the identification of the key issues (significant potential impacts) that might result from the proposed development the writer will rely on the following:

- inputs from Interested & Affected Parties (I&AP's), and
- inputs from specialists.

In this document the writer will allude to alternatives. The purpose of this is to ensure that the developer considers other approaches to the project (that could assist in preventing significant environmental damage). If unforeseen difficulties arise, for example during the operation of the project, re-examination of these alternatives may help to provide rapid and cost-effective solutions.

Each impact was assessed according to the project stages, viz;

- site preparation/construction, and
- operation.

An impact of "low significance" will have only a limited effect on the environment, whereas an impact of "high significance" will have a major impact on the environment.

A "positive impact" is one which enhances the existing environment, whereas a "negative impact", is one which degrades the environment. Where impacts are of high or low significance, the degree of probability has been evaluated and includes the terms "definite", "probable", "possible" or "improbable".

The assessment of the effects of an impact hereunder assumes that mitigation measures have been implemented. If this is not done a range of negative impacts will have a greater effect and positive impacts would not be enhanced.

The duration of an impact is assumed to be short term (less than one year); medium term (one to three years) and long term (beyond three years). Sensitive or vulnerable environments or features as well as secondary and cumulative impacts were also taken into account during evaluation of impacts.



## 7.2.1 Planning and Design Phase

Table 3: Impact Assessment Criteria

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented:
Floral Disturbances	Medium - Low	<ul style="list-style-type: none"> <li>• Before any vegetation is removed, a suitably qualified person (i.e. on Environmental Control Officer request of a vegetation specialist) shall inspect the study area for any plant/grass/tree species that could be transplanted to other similar/suitable areas.</li> <li>• All invader or exotic plant species must be removed from the site and disposed of at a landfill site.</li> <li>• Only indigenous floral species may be used during landscaping and rehabilitation.</li> </ul>	Low	Medium - Low
Faunal Disturbances	Medium - Low	<ul style="list-style-type: none"> <li>• Snaring and hunting of fauna by construction workers on or adjacent to the site are strictly prohibited and the Local Municipality shall prosecute offenders. It should also be a condition of employment that any employees/ workers caught poaching will be dismissed.</li> <li>• Workers must be trained on how to deal with fauna species as intentional killing will not be tolerated.</li> <li>• Where possible, work should be restricted to one area at a time, as this will give the smaller birds, mammals and reptiles a chance to weather the disturbance in an undisturbed zone close to their natural territories.</li> </ul>	Low	Low
Visual Impact	Medium - Low	<ul style="list-style-type: none"> <li>• Due to the fact that the surrounding areas are mostly built up with industrial buildings will the visual impact not be so</li> </ul>	Low	Low

		<p>significant.</p> <ul style="list-style-type: none"> <li>• Retain as many existing trees as possible to screen construction works. Construction activities should be kept clustered on site at all times.</li> <li>• The contractor shall ensure that the visual impact of the construction activities is minimised.</li> </ul>		
Temporary employment creation	High (Positive)	<ul style="list-style-type: none"> <li>• Where appropriate, labour intensive construction methods should be used. Where possible training of labour should take place to improve benefits to individuals well beyond this project. Use of emerging contractors should take place where possible.</li> </ul>	High (Positive)	High (Positive)

### 7.2.2 Constructional Phase

During the construction phase (i.e. during the installation of the engineering services, there will be severe impacts on the bio-physical environment). Special care should be given to protected trees.

Ideally flora such as medicinal plants and firewood should be removed by local traditional healers / residents prior to construction if possible. Large trees should be retained where possible. Unnecessary removing of vegetation from areas which will not be utilised, should be avoided at all costs.

Contractors should remove all waste generated by themselves during the construction period and it should be disposed of at a suitable solid waste disposal site – “illegal dumping into the surrounding bush” should not take place.

Concerns are likely to range around the impacts caused by:

- destruction of habitat/biodiversity,
- noise and air pollution, and
- the security of adjacent properties (e.g. children).

Table 4: Impact Assessment Criteria

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented:
Floral Disturbances	Medium - Low	<ul style="list-style-type: none"> <li>• Before any vegetation is removed, a suitably qualified person (i.e. on Environmental Control Officer request of a vegetation specialist) shall inspect the study area for any plant/ grass/tree species that could be transplanted to other similar/suitable areas.</li> <li>• All invader or exotic plant species must be removed from the site and disposed of at a landfill site.</li> <li>• Only indigenous floral species may be used during landscaping and rehabilitation.</li> <li>• Existing indigenous trees should be retained where possible. Excessive loss of vegetation should be avoided. Vehicular access should be restricted to essential areas only. Grass occurring on and near construction sites should be retained where possible, to assist in retarding erosion. During excavations, the area that is disturbed should be kept as small as possible, so as to minimise disturbances to the environment.</li> </ul>	Low	Medium - Low
Faunal Disturbances	Medium - Low	<ul style="list-style-type: none"> <li>• Snaring and hunting of fauna by construction workers on or adjacent to the site are strictly prohibited and the Local Municipality shall prosecute offenders. It should also be a condition of employment that any employees/ workers caught poaching will be dismissed.</li> <li>• Workers must be trained on how to deal with fauna species as intentional killing will not be tolerated.</li> <li>• Where possible, work should be restricted to one area at a</li> </ul>	Low	Low

		time, as this will give the smaller birds, mammals and reptiles a chance to weather the disturbance in an undisturbed zone close to their natural territories.		
Visual Impact	Medium - Low	<ul style="list-style-type: none"> <li>•Due to the fact that the surrounding areas are mostly built up with industrial buildings will the visual impact not be so significant.</li> <li>•Retain as many existing trees as possible to screen construction works. Construction activities should be kept clustered on site at all times.</li> <li>•The contractor shall ensure that the visual impact of the construction activities is minimised.</li> </ul>	Low	Low
Pollution	Low	<ul style="list-style-type: none"> <li>•The liberation of dust into the surrounding environment shall be effectively controlled by water spraying.</li> <li>•Machinery or equipment used on the site must not constitute a pollution hazard in respect of air pollution via excessive exhaust fumes. This shall be inspected regularly by the contractor and rectified immediately.</li> <li>•No open fires will be allowed to be made on site.</li> </ul>	Low	Low
Waste management	Medium - Low	<ul style="list-style-type: none"> <li>•Waste bins must be made available on site.</li> <li>•No burning of waste will be permitted.</li> <li>•Waste must be disposed of at the local dumping site.</li> </ul>	Low	Medium - Low
Construction traffic and access	Medium - Low	<ul style="list-style-type: none"> <li>•Damping down of unsurfaced roads should take place. Trucks should avoid travelling unnecessarily through private land.</li> </ul>	Low	Low
Construction impacts on soils	Medium - Low	<ul style="list-style-type: none"> <li>•Selective stripping of topsoil, subsoil and overburden should take place. Stockpiling of removed earth (separately) should take place and be returned for backfilling in the correct soil horizon order. In all construction areas (e.g. material laydown areas), topsoil and subsoils should be protected</li> </ul>	Low	Low

		from contamination/pollution (e.g. by fuel etc.). Stockpiling of removed earth should not occur in drainage lines or impede surface water runoff.		
Pollution of groundwater	Medium - Low	<ul style="list-style-type: none"> <li>Controlled use and or storage of all fuels and chemicals during construction is advised. Due to very limited amounts of the aforementioned substances being used during construction, leaching thereof into the underground water is highly unlikely. Adequate fuel containment facilities should however be used. Adequate sanitary facilities and ablutions must be provided for construction workers.</li> </ul>	Low	Low
Soil erosion due to vegetation clearance	Low	<ul style="list-style-type: none"> <li>When soil is cleared of vegetation, management techniques to prevent water erosion should be employed (e.g. reduction of water velocity and the diversion of surface water runoff downslope).</li> </ul>	Low	Low
Mixing of concrete	Low	<ul style="list-style-type: none"> <li>Concrete must be mixed on a plastic layer or ready mix must be used during construction.</li> </ul>	Low	Low
Safety on Site	Low	<ul style="list-style-type: none"> <li>The implementation of an Occupational Health and Safety management system should be required of all contractors. Safety measures and work procedures/instructions should be communicated to all construction workers. First aid facilities shall be on hand at all times. Medical screening of employees shall take place.</li> <li>The contractor shall implement adequate and mandatory safety precautions relating to all aspects of the operation. Warning and advisory signage should also be implemented (also with regards to vehicular movement along public roads).</li> </ul>	Low	Low
Unsocial activities at construction site (e.g. crime)	Low	<ul style="list-style-type: none"> <li>Appointed contractors should be required to implement security measures at construction camps/material laydown areas. Security gate control measures should be implemented in order that only labourers and authorised</li> </ul>	Low	Low

		persons obtain access to the construction camps/material laydown areas.		
Impact of construction noise on adjacent residential areas	Medium - Low	<ul style="list-style-type: none"> <li>•Keep residents of surrounding properties informed if any unusually noisy activities are planned. Noise impacts are reduced over distance at a rate of 1db (decibel) per 13 metres. Working hours should be limited to between 06h00 and 17h00 (Mondays to Saturdays only).</li> </ul>	Low	Low
Uncovering of heritage or archaeological sites/resources/graves	Low	<ul style="list-style-type: none"> <li>•In the case of an archaeological/heritage resources “find”, all excavation work should be halted and a heritage resources practitioner should be consulted (or alternatively the nearest SAHRA office). If found, graves shall be relocated in accordance with the stipulations of the South African Heritage Resources Act and its relevant regulations pertaining to graves.</li> </ul>	Low	Low
Proliferation of alien plant species during and after construction	Low	<ul style="list-style-type: none"> <li>•Regulation 15 of the Act on the Conservation of Agricultural Resources (as amended), Act No. 43 of 1983, determines that the establishment of declared weeds and invasive plants during and after development should be prohibited. It is recommended that alien species be removed and destroyed, preferably burned, before commencement of any construction activities.</li> </ul>	Low	Low
Temporary employment creation	High (Positive)	<ul style="list-style-type: none"> <li>•Local employment and procurement should receive priority when embarking upon planning and construction activities. Contractors should be required to make use of local labour and suppliers where possible.</li> <li>•Where appropriate, labour intensive construction methods should be used. Where possible training of labour should take place to improve benefits to individuals well beyond this project. Use of emerging contractors should take place where possible.</li> </ul>	High (Positive)	High (Positive)

### 7.2.3 Operational Phase

The most significant (potential) environmental impacts during operation of the proposed cultivated lands relate to effects resulting from:

- Resulting noise,
- Pollution of groundwater due to storage tanks that may leak, and
- Visual impact & impact on sense of place.

Table 5: Impact Assessment Criteria

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented:
Visual quality of the landscape	Medium - Low	<ul style="list-style-type: none"> <li>•The potential of the proposed development to impact negatively on the character of the area is anticipated to be minimal, due to the already developed nature of the surrounding areas.</li> <li>•The development of a public garage will serve to lessen the overall negative impact on the environment should the buildings be designed so that it blends in with the prevailing architectural character of the area.</li> </ul>	Low	Low
Waste management	Medium - Low	<ul style="list-style-type: none"> <li>• Waste bins must be made available on site.</li> <li>• No burning of waste will be permitted.</li> <li>• Waste must be disposed of at the local dumping site.</li> </ul>	Low	Low
Leakage from underground fuel tanks	Medium - Low	<ul style="list-style-type: none"> <li>•All containment structures for polluted water should be lined to prevent seepage and pollution of groundwater.</li> <li>•Daily reconciliation of the volumes of petroleum products should be done to ensure early detection of a possible leak.</li> <li>•Leakage detectors and odour detectors should be installed.</li> </ul>	Low	Medium - Low

		Checking for product losses should take place regularly. Any losses should be reported to the relevant oil company and relevant authorities within 14 days and the necessary remedial action taken.		
Proliferation of alien plant species during and after construction	Low	<ul style="list-style-type: none"> <li>Regulation 15 of the Act on the Conservation of Agricultural Resources (as amended), Act No. 43 of 1983, determines that the establishment of declared weeds and invasive plants during and after development should be prohibited. It is recommended that alien species be removed and destroyed, preferably burned, before commencement of any construction activities.</li> </ul>	Low	Low
Employment creation	High (Positive)	<ul style="list-style-type: none"> <li>Change of land use from (relatively) natural veldt to a suburban environment will occur. The proposed development will create additional jobs for the local people.</li> </ul>	High (Positive)	High (Positive)



## 7.2.4 SUMMARY OF POSITIVE AND NEGATIVE IMPACTS AND RISKS OF THE PROPOSED ACTIVITY AND IDENTIFIED ALTERNATIVES

### a) Positive Impacts

Socio economic upliftment in the area. The development will improve Vodacom reception in the area.

### b) Negative Impacts

The development can have negative impacts on the environment during the construction phase. The negative impacts of the development can however be mitigated effectively by application of the mitigation measures in this report and in the EMPr.

It can be concluded that there will be environmental impacts as a result of the proposed Vodacom mast. However, all the impacts can be mitigated to an acceptable extent. Most of the impacts can be avoided and potential impacted areas will be demarcated as no-go or limited areas, therefore limiting the possible negative environmental impacts.

## 8. ADVANTAGES AND DISADVANTAGES ASSOCIATED WITH PROPOSED CHANGES

The site is feasible from a fuel sales viewpoint, based on the expected fuel- and convenience store sales.

The impact on any of the existing sites will not be enough to impact on the feasibility of any of the individual sites. General traffic growth in the area will ensure short term losses will be regained within 3 to 4 years. The most affected site will be the closest existing competitor site: Total Ernest Oppenheimer Road.

New jobs will be created in the Rosslyn area, which will have a positive impact on the community.

The residents of the new housing development in the Rosslyn area will benefit positively due to the fact that there will be then a filling station nearby.

Another advantage of the change as stated above is that it does not lead to an increase in the development footprint.

All requirements and specifications as included in the current EA will be met and implemented including all mitigation measures to be implemented in order to minimize and avoid any negative environmental impacts that may occur as a result of the development of the filling station.

No new jobs will be created should the filling station not be constructed.

## 9. CONCLUSIONS AND RECOMMENDATIONS

This Draft Impact Report describes the amendments which are being applied for, which constitutes a Part 2 Amendment Application in terms of Regulation 31 of the EIA Regulations, 2014, as amended, for the development of a filling station.

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The purpose of this report is to provide the relevant authorities and interested and affected parties with sufficient information regarding the potential impacts of the changes to the development, which was previously authorized.

Amendments to the amended EA, now being applied for include:

*the addition of a filling station for the storage and handling of dangerous goods, within the already authorised footprint of the Rosslyn housing project.*

The layout plan has been amended to accommodate the proposed filling station.

The potentially significant negative impacts that have been identified should be mitigated through the implementation of the mitigation measures highlighted in this report. It is suggested that the proposed mitigation measures, will effectively lower the impacts to acceptable levels.

It is the professional opinion of Tekplan Environmental that the proposed changes to the development specifications do not present any fatal flaws in terms of negative impacts to the environment and therefore will not have any significant detrimental impacts to render the project unfeasible.

The authorised EMPr for the original Rosslyn Housing Project is attached in Annexure M and the EMPr for the proposed filling station is attached in Annexure N.

## **10. UNDERTAKING UNDER OATH OR AFFIRMATION BY THE EAP**

I, Anton von Well, appointed EAP for the amending of current EA for the project located on Portion 1 of the farm Klipfontein 268 JR (to be known as Rosslyn Extensions 40, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58 and 67), located in the City of Tshwane Metropolitan Municipality, Gauteng Province, hereby confirm:

- Correctness of the information provided in this report
- All comments and inputs and responses from stakeholders and I&APs are included here.
- All inputs and recommendations from the specialist reports where relevant, are included.



Anton von Well  
Registered EAP  
EAPASA Ref. 2019/934

28 April 2021  
Date