SCOPING REPORT

FOR THE PROPOSED DEVELOPMENT OF

RIVERSIDE VIEW EXTENSION 84

PUBLIC REVIEW: 7 February 2020 – 9 March 2020

Proponent:

Steyn City Properties (Pty) Ltd.

STEYN CITY

Report Compiled by:

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04/02/2020	21637-SR-0000	21637-SR-1	Minor amendments; Finalise report

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1 INTRODUCTION

Steyn City Properties (Pty) Ltd. plans to develop Riverside View Ext 84 on portions 124 and 185 of the farm Diepsloot 388 JR. The proposed zoning of the development will be *Special for: Place of Instructions, Residential buildings and Offices, including ancillary uses such as restaurants and shops* and aims to provide a school, offices and residential buildings. Private Open space will also be incorporated into the development which form parts of the Steyn City Parkland Residence which has been designed to be a modern, mixed land use and mixed income development.

Steyn City supplies residential units at various densities and at various residential typologies, sport and recreational facilities including a golf course, equestrian uses, educational facilities, community facilities, supportive retail and office development as well as large tracts of active and passive recreation open space. The entire Steyn City Lifestyle Estate contains a number of higher density villages together with low density uses and open space elements such as the Jukskei River and other environmental sensitive areas. Riverside View Extension 84 will be developed in line with this concept.

Steyn City Properties (Pty) Ltd has appointed **Prism Environmental Management Services** (Prism EMS) as the independent Environmental Assessment Practitioner (EAP) to undertake the required environmental authorisation processes required by a host of environmental legislation. Such process referred to as an ***Environmental Authorisation process*** and the details of which are discussed and described in the contents of this report.

1.1 Application

An application for the Environmental Authorisation has been submitted to the competent authority, the Gauteng Department of Agriculture and Rural Development (GDARD) through their online system. The following reference number has been issued.

- GAUT 002/17-18/E2040

1.2 Report Outline

The format of the Scoping Report has been aligned with the requirements contained in Appendix 2 of the EIA Regulations, 2014 (as amended) promulgated under the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended. The required report contents and how it is structured in this report is indicated in **Table 1-1** below.

Table 1-1: Required contents of the Scoping Report.

Appendix 2 of the EIA Regulations, 2014	Reference in Report
2(1)(a) Details of the: (i) EAP who prepared the report; and (ii) Expertise including CV	 Section 1.3 Appendix 10.1
2(1)(b) Location of the activity including:	

Appendix 2 of the EIA Regulations, 2014	**Reference in Report**
(i) 21-digit SG code of each parcel (ii) Physical address of farm (iii) Co-ordinates of property boundary	Section 1.6
2(1)(c) Plan locating the proposed activity or activities applied for at an appropriate scale, or, it is - (i) a linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken; or (ii) on land where the property has not been defined, the coordinates within which the activity is to be undertaken	Section 1.6 Figure 1-2.
2(1)(d) A description of the scope of the proposed activity, including - (i) all listed and specified activities triggered (ii) A description of the activities to be undertaken including associated structures and infrastructure.	Section 4.2 Section 4.3
2(1)(e) A description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process	Section 2
2(1)(f) A motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location	Section 5
2(1)(g) A full description of the process followed to reach the preferred activity, site and location of the development footprint within the site, including - (i) Details of the Alternatives considered (ii) Details of the Public participation process undertaken in terms of Regulation 41 of the Regulations, including copies of the supporting documents and inputs (iii) A summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them (iv) The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects (v) The impacts and risks which have informed the identification of each alternative, including the nature, significance, consequence, extent, duration and probability of such identified impacts, including the degree to which these	 Section 6 Section 7 Section 7.2.5 & Appendix 10.4.4 Section 3 Section 8.5

Appendix 2 of the EIA Regulations, 2014		Reference in Report
	impacts can be reversed, may cause irreplaceable loss of resources; and can be avoided, managed or mitigated.	
(vi)	The methodology used in identifying and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives	Section 8.3
(vii)	The positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects	Section 8.1
(viii)	The possible mitigation measures that could be applied and level of residual risk.	Section 8.4
(ix)	Outcome of the site selection matrix	Section 6
(x)	If no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such	N/A
(xi)	Concluding statement indicating the preferred alternatives, including preferred location of the activity	Section 6
2(1)(h) A plan of study for undertaking the environmental impact assessment process to be undertaken, including		
(i)	A description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity	
(ii)	A description of the aspects to be assessed as part of the environmental impact assessment process	
(iii)	Aspects to be assessed by specialists	
(iv)	A description of the proposed method of assessing the environmental aspects, including aspects to be assessed by specialists	Section 8 and Section 7
(v)	A description of the proposed method of assessing duration and significance	
(vi)	An indication of the stages at which the competent authority will be consulted	
(vii)	Particulars of the public participation process that will be conducted during the environmental impact assessment process	
(viii)	A description of the tasks that will be undertaken as part of the environmental impact assessment process	

Appendix 2 of the EIA Regulations, 2014	Reference in Report
(ix) Identify suitable measures to avoid, reverse, mitigate or manage identified (x) impacts and to determine the extent of the residual risks that need to be managed and monitored	
2(1)(i) An undertaking under oath or affirmation by the EAP in relation to— (i) The correctness of the information provided in the report; (ii) The inclusion of comments and inputs from stakeholders and interested and affected parties; and (iii) Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested or affected parties.	Section 9
2(1)(j) An undertaking under oath or affirmation by the EAP in relation to the level of agreement between the EAP and interested and affected parties on the plan of study for undertaking the environmental impact assessment	Section 9
2(1)(k) Information specified by the competent authority	Appendix 10.5
2(1)(l) Any other matter	
2(2) Where a government notice *gazetted* by the Minister provides for any protocol or minimum information requirement to be applied to a scoping report, the requirements as indicated in such notice will apply.	Not currently applicable

Please also note that as per the requirements of GN 960 of 5 July 2019, a copy of the report generated from the National web based environmental screening tool as contemplated in Regulation 16(1)(b)(v) of the EIA Regulations, 2014 (as amended) has also been included in Appendix 10.5.

1.3 Environmental Assessment Practitioner

Prism EMS have been appointed to undertake the required Environmental Authorisation process in terms of the required Environmental Impact Assessment. Details and expertise of the Environmental Assessment Practitioner (EAP) who prepared the Scoping Report is provided in Table 1-2 and Curriculum Vitae is appended in Section 10.1.

Table 1-2.: Details of the EAP.

EAP:	Vanessa Stippel
Company:	Prism Environmental Management Services
Qualifications:	MSc. Ecology, Environment and Conservation
Experience:	10 years

Affiliation/ Registration	Professional Member of Southern African Institute of Ecologists and Environmental Scientists Member of IAIAsa (6020) SACNASP: Pr.Sci.Nat. (116221) EAPASA: Registered EAP in terms of Section 24H of NEMA, 1998 (as amended) (2019/175)
Address:	PO Box 1401, Wilgeheuwel, 1736
Tel:	087 985 0951
Fax:	086 601 4800
Email:	vanessa@prismems.co.za

Designation	**Name**	**Qualification**	**Professional Registration**	**Specialist Assessment**
Prism EMS Team				
Contact Details	**Post:** PO Box 1401, Wilgeheuwel, Johannesburg, 1736		**Tel:** 087 985 0951 Fax**:** 086 601 4800 **Email:** prism@prismems.co.za www.prismems.co.za	
Project Director	De Wet Botha	MA. Environmental Management PHED	SACNASP Registered Scientist – Pr.Sci.Nat. (119979) EAPASA: Registered EAP (2019/1209) Member of the International Association for Impact Assessors (IAIAsa) (1653) Member of the Gauteng Wetland Forum Member of the South African Wetland Society	Project Management and Quality Control and Review

1.4 Authorities

The following competent authorities are involved in the decision-making process:

- GDARD with reference to activities under the:
  - EIA Regulations and Listing Notices, 2014 (NEMA)
- The Department of Human Settlements Water and Sanitation (DHSWS) in reference to Section 21 Activities in terms of the National Water Act (NWA) (Act No 36 of 1998). A copy of the Water Use Licence Application (WULA) Technical Report will be included in the EIA Phase.

1.5 Applicant

The applicant is the entity that will assume responsibilities as the holder of the environmental authorisation if granted. Details of the applicant and landowner are contained in Table 1-3.

Table 1-3.: Details of the Applicant and Landowner

Applicant:	Steyn City Properties (Pty) Ltd
Landowner:	Steyn City Properties (Pty) Ltd
Contact Person:	Christo de Wet
Address:	P.O. Box 1623 Honeydew 2040

1.6 Location

The site is collectively situated on Portion 124 and 185 of the farm Diepsloot 388 JR which is situated in Region A of the City of Johannesburg and is located to the north of Fourways and South of Diepsloot. The site is situated to the east of William Nicol Drive (R511) and the to the north of Zeven Street. The corner point coordinates of the site are indicated in Table 1-4.

Table 1-4.: Corner Point Coordinates

Corner	Coordinates
1	25°57'47.54"S; 28° 0'50.29"E
2	25°57'50.35"S; 28° 1'8.71"E
3	25°58'5.27"S; 28° 0'46.66"E
4	25°58'10.09"S; 28° 1'2.94"E

The Surveyor General 21-digit diagram numbers for the affected properties are provided in Table 1-5 below.

Table 1-5.: Surveyor General Diagram Numbers.

Portion	Surveyor General Diagram number
124	T0JR00000000038800124
185	T0JR00000000038800185

Refer to Figure 1-1 below for a visual indication of the site location. Please note that A3 maps are also provided in Appendix 10.3.

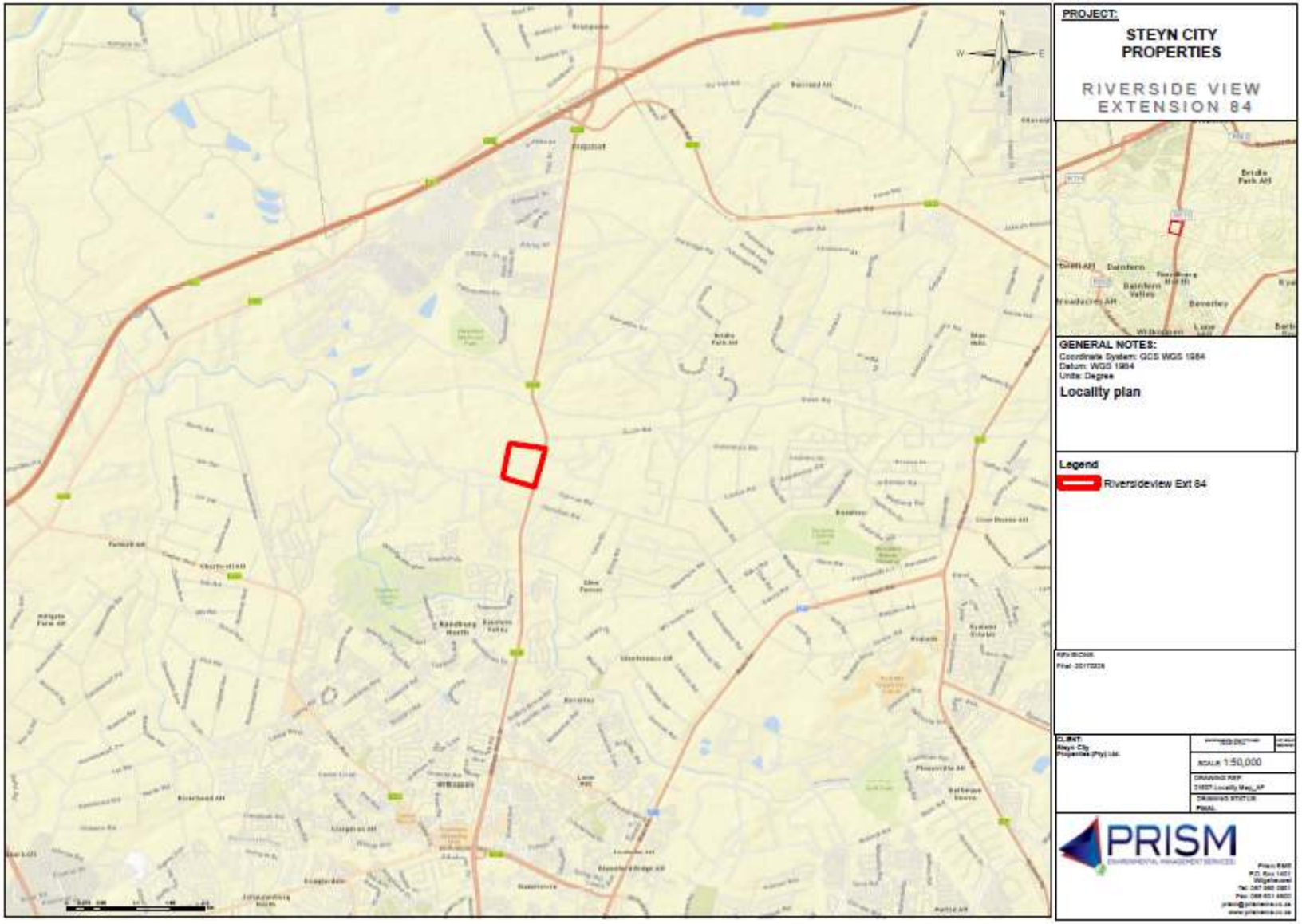


Figure 1-1: Locality Map

2 LEGISLATIVE FRAMEWORK

This section aims to provide an overview of key policy, legislation, plans, guidelines and municipal development planning frameworks triggered by the proposed project. The requirements set out in these Act's and Regulations will be adhered to through the scoping and impact assessment phases of the project.

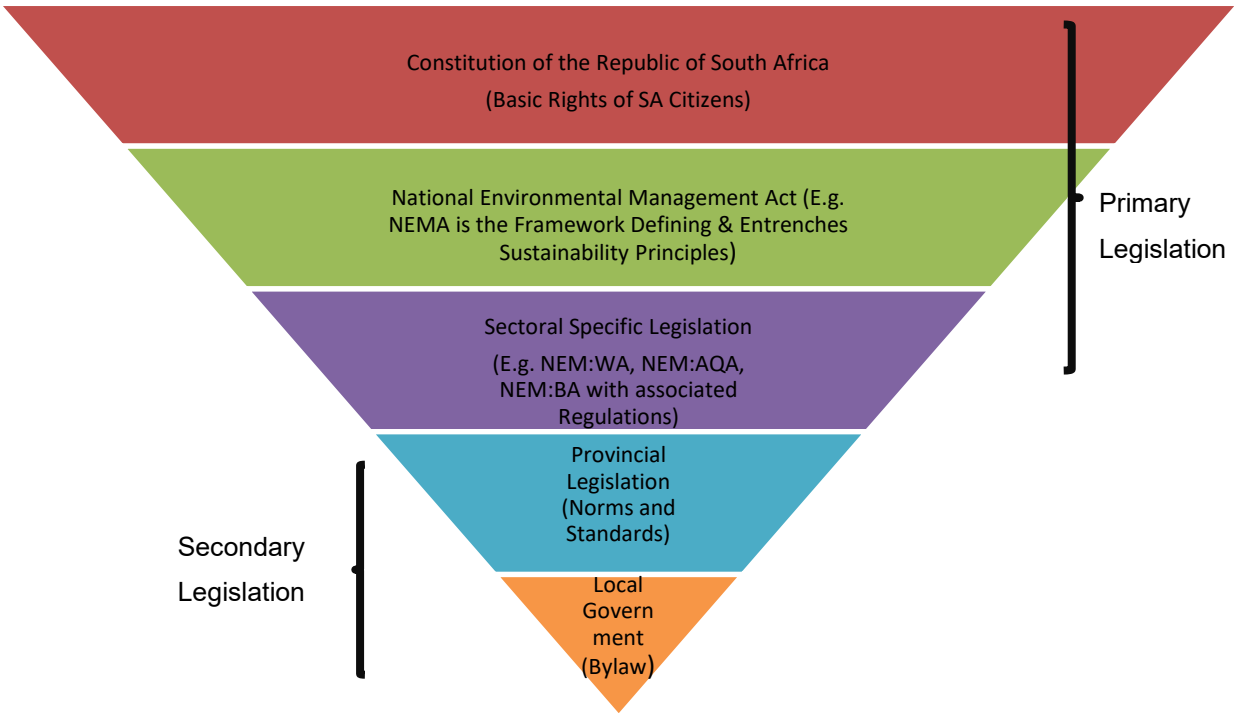


Figure 2-1: South African Environmental Legislation Hierarchy.

The following Acts, Regulations, By-Laws and Guidelines are applicable to the proposed development.

2.1 Constitution of the Republic of South Africa

Section 24 of the Constitution states that –

"Everyone has the right to -

a) an environment that is not harmful to their health or well-being; and

b) have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that –

(i) Prevent pollution and ecological degradation;

(ii) Promote conservation; and

(iii) Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development."

2.2 National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998)

The NEMA is the umbrella framework for all environmental legislation primarily to assist with implementing the environmental rights of the Constitution (refer to Section 2.1). The NEMA provides fundamental principles required for environmental decision making and to achieve sustainable development. It also makes provision for duty of care to prevent, control and rehabilitate the effects of significant pollution and environmental degradation, and prosecute environmental crimes. These principles must be adhered to, and taken into consideration during the impact assessment phase.

NEMA defines "environment" as –

"the surroundings within which humans exist and that are made up of –

(i) the land, water and atmosphere of the earth;

(ii) micro-organisms, plants and animal life;

(iii) any part or combination of (i) or (ii) and the interrelationship among and between them; and

(iv) the physical, chemical, aesthetic and cultural, properties and conditions of the foregoing that influence human health and well-being."

Section 24D and 24(2) of the NEMA makes provision for the publication of list and associated regulations containing activities identified that may not commence without obtaining prior environmental authorisation from the competent authority. These regulations are referred to as the EIA Regulations and are interpreted hand in hand with the various listed activities discussed further below.

2.2.1 Environmental Impact Assessment Regulations, 2014 (GN R 982 of 4 December 2014, as amended)

The EIA regulations were promulgated in terms of Section 24 of the NEMA, for the purpose of providing methodologies and specific requirements for the undertaking of an EIA. The Regulations stipulate that any proposed activity listed in the associated notices must undertake either a Basic Assessment (BA) or Scoping & Environmental Impact Report (S&EIR) in order to obtain an environmental authorisation (if granted) by the competent authority before the commencement of the specified listed activity.

The EIA Regulations provide the minimum requirements for appointing an Environmental Assessment Practitioner (EAP) and for undertaking the relevant Public Participation Process (PPP) as required. They also detail the contents of the impact assessment reports and all other aspects associated with BA and/or EIAs.

The following listed activities have been identified in terms of the subsequent Government Notices:

2.2.1.1 Listing Notice 1: GN R 983 of 4 December 2014 (as amended)

Activities listed under this process require a Basic Assessment process to be undertaken. Due to the fact that a bridge will be put in place over the wetland, Activity 19 is triggered:

The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from-

(i) a watercourse;

(ii) the seashore; or

(iii) the littoral active zone, an estuary or a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever distance is the greater but excluding where such infilling, depositing , dredging, excavation, removal or moving-

(a) will occur behind a development setback;

(b) is for maintenance purposes undertaken in accordance with a maintenance management plan; or

(c) falls within the ambit of activity 21 in this Notice, in which case that activity applies.

Please note that whilst infrastructure (in the form of the road/bridge) will be placed within 32m if a watercourse, Activity 12 of Listing Notice 1 is not triggered. This is due to the fact that Activity 14 of Listing Notice 3 is triggered and thus the exclusion applies. It should also be noted that whilst stormwater, water and sewer pipelines will be put in place, these are below the thresholds indicated in Activity 9 and 10 of Listing Notice 1 and as such these activities are not triggered.

2.2.1.2 Listing Notice 2: GN R 984 of 4 December 2014

Activities listed under this process require Scoping and EIA to be undertaken. Due to the fact that more than 20 hectares of land will be developed and cleared, Activity 15 of Listing Notice 2 is triggered:

The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for the undertaking of a linear activity; or maintenance purposes undertaken in accordance with a maintenance management plan.

As such a Scoping and EIA process is applicable.

2.2.1.3 Listing Notice 3: GN R 985 of 4 December 2014

Activities listed under this process require a Basic Assessment process to be undertaken but only in specified geographic areas. Due to the fact that part of the site falls within a C-Plan area as well as historical Egoli Granite Grasssland, a number of activities within Listing Notice 3 are triggered:

Activity 4 of Listing Notice 3, as amended:

The development of a road wider than 4 metres with a reserve less than 13,5 metres.

c. Gauteng

i. A protected area identified in terms of NEMPAA, excluding conservancies;

ii. National Protected Area Expansion Strategy Focus Areas;

iii. Gauteng Protected Area Expansion Priority Areas;

iv. Sites identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng Conservation Plan or in bioregional plans;

v. Sites identified within threatened ecosystems listed in terms of the National Environmental Management Act: Biodiversity Act (Act No. 10 of 2004);

vi. Sensitive areas identified in an environmental management framework adopted by the relevant environmental authority;

vii. Sites identified as high potential agricultural land in terms of Gauteng Agricultural Potential Atlas;

viii. Important Bird and Biodiversity Area (IBA);

ix. Sites or areas identified in terms of an international convention;

x. Sites managed as protected areas by provincial authorities, or declared as nature reserves in terms of the Nature Conservation Ordinance (Ordinance 12 of 1983) or the NEMPAA;

xi. Sites designated as nature reserves in terms of municipal Spatial Development Frameworks; or

xii. Sites zoned for conservation use or public open space or equivalent zoning

Activity 12 of Listing Notice 3 (as amended):

The clearance of an area of 300m^2 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.

C. Gauteng

i. Within any critically endangered or endangered ecosystem listed in terms of Section 52 of NEMBA or prior to the publication of such list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment, 2004.

ii. Within Critical Biodiversity Areas or Ecological Support Areas identified in the Gauteng Conservation Plan or bioregional plans;

iii. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning.

Activity 14 of Listing Notice 3 (as amended):

The development of-

(i) dams or weirs, where the dam or weir, including infrastructure and water surface area exceeds 10 square metres; or

(ii) infrastructure or structures with a physical footprint of 10 square metres or more

where such development occurs-

a) within a watercourse;

(b) in front of a development setback; or

(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; -

excluding the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour.

c. Gauteng

i. A protected area identified in terms of NEMPAA, excluding conservancies;

ii. National Protected Area Expansion Strategy Focus Areas;

iii. Gauteng Protected Area Expansion Priority Areas;

iv. Sites identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng Conservation Plan or in bioregional plans;

v. Sites identified within threatened ecosystems listed in terms of the National Environmental Management Act: Biodiversity Act (Act No. 10 of 2004);

vi. Sensitive areas identified in an environmental management framework adopted by the relevant environmental authority;

vii. Sites or areas identified in terms of an international convention;

viii. Sites managed as protected areas by provincial authorities, or declared as nature reserves in terms of the Nature Conservation Ordinance (Ordinance 12 of 1983) or the NEMPAA;

ix. Sites designated as nature reserves in terms of municipal Spatial Development Frameworks; or

x. Sites zoned for conservation use or public open space or equivalent zoning.

2.2.2 GN 960 of 5 July 2019 | Notice of the requirements to submit a report generated by the National Web Based Environmental Screening Tool in terms of Section 24(5)(h) of the National Environmental Management Act, 1998 and Regulation 18(1)(b)(v) of the EIA Regulations, 2014 (as amended)

As per the requirements of GN 960 of 5 July 2019, a report was generated on the National Screening tool and is submitted in Appendix 10.5.

2.2.3 G.N. 164 of 2 March 2018 | Adoption of the Gauteng Provincial Environmental Framework Standard and Exclusion of Associated Activities from the requirement to obtain environmental authorisation in terms of Section 24(2)(d) and 24(10)(a) Read in conjunction with Section 24(1)(d) of NEMA, 1998 for the implementation of the Gauteng Provincial Environmental Management Framework

The Gauteng Provincial Environmental Management Framework (GPEMF) was consulted, whilst most of the development footprint does fall within Zone 1 – Urban Development Boundary, the site has a number of sensitivities and as such a Registration in terms of the GPEMF Standard, 2018 is not applicable.

2.3 National Water Act (NWA), 1998 (Act No. 36 of 1998)

The NWA is the primary regulatory legislation; controlling and managing the use of water resources as well as the pollution thereof and is implemented and enforced by the Department of Human Settlements, Water

and Sanitation (DHSWS[1]). Section 21 of the NWA lists water uses that must be licensed unless it is listed in the schedule (existing lawful use) and/or is permissible under a general authorisation, or if a responsible authority waives the need for a Water Use Licence. Section 21 water uses include:

- Section 21(a): taking water from a water resource
- Section 21(b): storing water
- Section 21(c): impeding or diverting the flow of water in a watercourse
- Section 21(d): engaging in a stream flow reduction activity contemplated in section 36
- Section 21(e): engaging in a controlled activity as identified in Section 37 (1) or declared under Section 38 (1).
- Section 21(f): discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall, or other conduit.
- Section 21(g): disposal of waste (i.e. effluent from sewage works) in a manner which may detrimentally impact on a water resource;
- Section 21 (h): disposing in any manner of water which contains waste from, or which has been heated in, any industrial or power generation process.
- Section 21 (i): altering the bed, banks, course or characteristics of a watercourse.
- Section 21 (j): removing, discharging, or disposing of water found underground if it necessary for the efficient continuation of an activity or for the safety of people.
- Section 21(k): using water for recreational purposes.

Applicable definitions included in the NWA include watercourse which is defined as "*(a) a river or spring; (b) a natural channel in which water flows regularly or intermittently; (c) a wetland, lake or dam into which, or from which, water flows; and (d) any collection of water which the Minister may, by notice in the Gazette, declare to be a watercourse (and a reference to a watercourse includes, where relevant, its bed and banks).* The Act also defines a wetland as "*land which is transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is periodically covered with shallow water, and which land in normal circumstances supports or would support vegetation typically adapted to life in saturated soil".*

The recently published General Authorisation in terms of Section 39 of the NWA for water uses as defined in Section 21(c) or section 21(i) (GN 509 of 2016) also defines the regulated area of a watercourse as meaning: *(a) The outer edge of the 1 in 100 year flood line and /or delineated riparian habitat, whichever is the greatest distance, measured from the middle of the watercourse of a river, spring, natural channel, lake or dam; (b) In the absence of a determined 1 in 100 year flood line or riparian area the area within 100m from the edge of a watercourse where the edge of the watercourse is the first identifiable annual bank fill*

[1] Previously referred to as the Department of Water and Sanitation or DWS

flood bench (subject to compliance to section 144 of the Act); or (c) A 500 m radius from the delineated boundary (extent) of any wetland or pan.

Due to the crossing over the wetland, stormwater releases as well as activities within 500m of a wetland, the following Section 21 uses are triggered and required licencing:

- Section 21(c): impeding or diverting the flow of water in a watercourse
- Section 21 (i): altering the bed, banks, course or characteristics of a watercourse.

Due to activities within the wetland, the GA for Section 21(c) and (i) is not applicable and a full WULA is required.

2.3.1 R. 267 of 24 March 2017 | Regulations regarding the Procedural Requirements for Water Use License Applications and Appeals

It should be noted that on the 24 March 2017, the Regulations regarding the Procedural Requirements for Water Use License Applications and Appeals (R. 267 of 24 March 2017) were published and came into effect. These Regulations provide the requirements for the WULA process. The WULA for Riverside View Extension 84 will be undertaken in line with these requirements. A combined process will be undertaken and public participation for the WULA process will be combined with the S&EIA process.

2.4 National Heritage Resource Act (NHRA), 1999 (Act No. 25 of 1999)

The NHRA provides for the protection and management of South Africa's heritage resources. The South African National Heritage Resources Agency (SAHRA) is the administering authority in regards to all matters relating to heritage resources. A heritage resource refers to any historically important feature such as graves, trees, archaeology, culturally significant symbols, spaces, landscapes and fossil beds as protected heritage resources. In terms of Section 38 of the NHRA, SAHRA can call for a Heritage Impact Assessment (HIA) for certain categories of development. The NHRA also makes provision for the assessment of heritage impacts as part of an EIA process and indicates that if such an assessment is deemed adequate, a separate HIA is not required.

Section 38 (1) of the NHRA notes that the relevant heritage authority should be notified provided with details such as location, nature and extent of the following developments:

(a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;

(b) the construction of a bridge or similar structure exceeding 50 m in length;

(c) any development or other activity which will change the character of a site—

(i) exceeding 5 000 m2 in extent; or

(ii) involving three or more existing erven or subdivisions thereof; or

(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or

(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;

(d) the re-zoning of a site exceeding 10 000 m2 in extent; or

(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,

Although no known heritage resources occur at the proposed site, a HIA will be undertaken as part of the EIA Phase and will be included in the EIA Report. Furthermore, the SAHRA will be notified and provided an opportunity to comment on the Scoping Report which is available for public review.

2.5 National Environmental Management: Biodiversity Act (NEM:BA), 2004 (Act No. 10 of 2004)

The NEM:BA aims to provide for the management and conservation of South Africa's biodiversity within the framework of the NEMA. The purpose of the NEM:BA is to protect ecosystems and the species within as well as the promoting of sustainable use of indigenous biodiversity. During any environmental authorisation process the following regulations are considered and researched if at any stage the following regulations are applicable:

- Alien and Invasive Species Regulations;
- Alien and Invasive Species List;
- Lists of Critically Endangered, Endangered, Vulnerable and Protected Species; and
- Threatened or Protected Species Regulations.

2.6 National Environmental Management: Protected Areas Act (NEMPA) (Act 57 of 2003)

The aim of NEMPA is to provide for the protection and conservation of ecologically viable areas representative of South Africa's biological diversity and its natural landscape. It also provides for the establishment of a national register of national, provincial and local protected areas and for the management of those areas in accordance with national norms and standards.

In line with the Minister has established a **Register of Protected Areas** which was utilized to determine whether the proposed development was affected by Protected areas.

2.7 National Environmental Management: Waste Management Act (NEM:WA), 2008 (Act No. 59 of 2008)

The NEM:WA aims to regulate waste management in South Africa in order to protect health and the environment through the provision of reasonable measures for the prevent pollution and ecological degradation.

The Act includes regulations which provide a list of waste management activities that require a waste management licence terms of NEM: WA (GN 921 of 29 November 2013). The proposed development has been assessed as no waste management licence is required for the proposed development. Waste will be collected by municipal waste collectors and disposed of at the municipal landfill.

Storage Facilities in excess of 100m^3 (general waste) or 80m^3 (hazardous) (if required) will comply with the Norms and Standards for the Storage of Waste.

2.8 National Environmental Management: Air Quality Act (NEM: AQA), 2004 (Act No. 39 of 2004)

The aim of NEM: AQA is to regulate air quality in order to protect the environment from pollution and ecological degradation.

The proposed development does not trigger any activities that require an Air Emissions Licence. Dust produced during the construction phase will be managed through the implementation of mitigation measures which will be included in the Environmental Management Programme (EMPr).

2.9 Other Legislation and Guidelines

The following By-laws have been published under the City of Johannesburg (CoJ) Municipality to provide a framework for its operation and management and must be adopted by the public of Johannesburg and adhere to its specific regulations.

2.9.1.1 City of Johannesburg Metropolitan Municipality: Water Services By-laws

This bylaw prescribes and elaborates on the use and related activities of water in the CoJ and must therefore be considered during any EIA process in the Johannesburg metropolitan area.

- *No person or company may consume, abstract or be supplied with water from the water system, or utilise the sewage disposal system or any other sanitation service, unless he/she has been granted authorisation by the council for the proscribed water service.*
- *If an EIA is required to be carried out before the provision of the water services can be approved or commenced, the applicant for such services shall be responsible for the carrying out of such EIA, and for the expenses connected therewith;*
- *After environmental approval has been granted and the provision of water services has been approved by the Council, it is the responsibility of the proposed consumer or any entity established under any law to represent the property interests of any consumer or group of consumers to ensure that all laws and conditions affected by the provisions of water services and relating to environmental management and control are complied with.*

This bylaw also elaborates on the limits and maximum concentration of certain substances allowed to enter the water system (Schedule D).

2.9.1.2 City of Johannesburg Metropolitan Municipality: Waste Management By-Laws

This bylaw prescribes and elaborates on the use, disposal and related activities of waste in the CoJ and must therefore be considered during any EIA or waste management application process in the Johannesburg area.

- *When any site development plan is submitted to the Council for its approval, the person making the submission must simultaneously submit:*
  - *A building waste management plan setting out the manner in which all building waste and other waste to be generated in the course of construction will be managed, treated, collected, transported and disposed of; and*
  - *Proof that all necessary waste management services for the construction activities will be provided by an accredited service provider.*
- *No site development plan may be approved before the building waste management plan has been approved by the council*
- *All building waste must be disposed of at an appropriately licensed waste disposal facility, unless:*
- *the council has given written consent for the building waste to be used for the purpose of land reclamation and all other authorisations required for this have been obtained; or*
- *the building waste will be re-used or recycled by an accredited service provider.*

The Waste Management bylaws provide procedures for the minimisation of waste production and disposal in a best practice principle with related duty of care and allowed activities in the Johannesburg metropolitan area.

2.9.1.3 City of Johannesburg Metropolitan Municipality: Municipal Planning Draft By-Laws

This bylaw applies to all land and land development applications within the jurisdiction of the City of Johannesburg and must therefore be considered during any EIA process in the Johannesburg metropolitan area to align with the set of requirements set out in the by-law.

2.9.2 Guidelines

The following guidelines have been adopted by the applicant in the pursuit of best practice and sustainable development and are considered in the management measures and mitigation of impacts identified.

- Guidelines on Need and Desirability (DEA&DP, 2010);
- Guidelines on Alternatives (DEA&DP, 2010);
- Guidelines on Public Participation (DEA&DP, 2011);
- IEMS Guidelines series (DEA&DP, 2014);
- Gauteng Spatial Development Framework (SDF);
- Gauteng Provincial Environmental Management Framework (EMF); and
- National Development Plan 2030.

3 DESCRIPTION OF THE RECEIVING ENVIRONMENT

3.1 Local Climate

3.1.1 Overview

The climatological data for the Chartwell area (which is approximately 4km east of the study site) is provided below. In terms of temperature, average temperatures for the period 2009 to 2016 ranged between 24°C and 29°C in summer and between 12°C and 16°C in winter (www.worldweatheronline.co.za) (Figure 3-1).

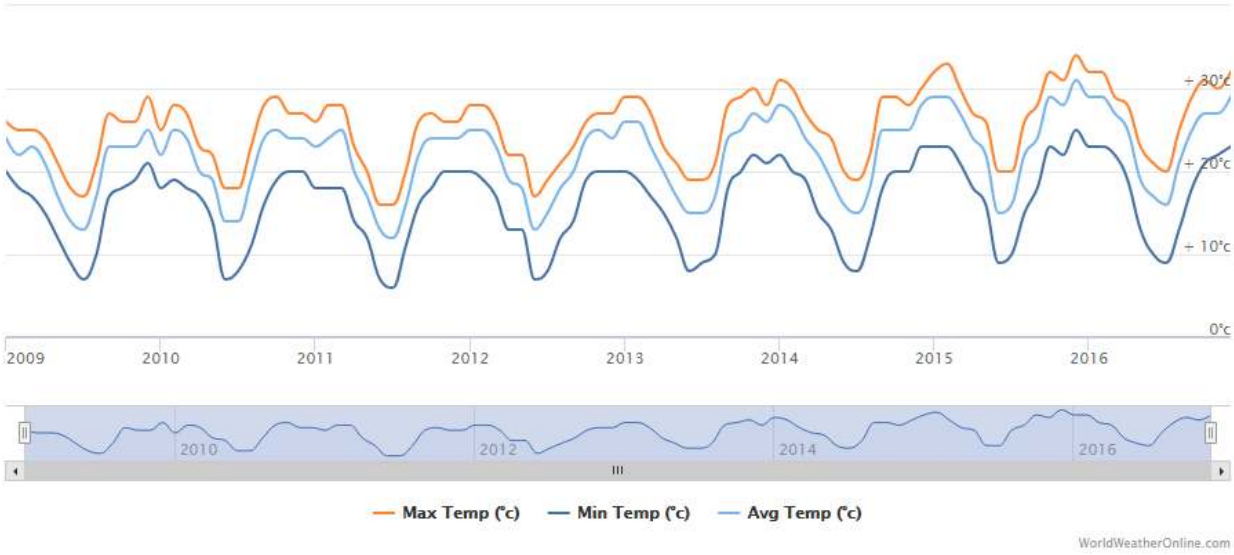


Figure 3-1: Minimum, Maximum and Average Temperatures for Chartwell, Gauteng (www.worldweatheronline.co.za).

The City of Johannesburg is located in a summer rainfall region and rainfall typically occurs in the form of late afternoon showers during October to April. The annual average rainfall is 713 millimetres, mostly concentrated in the summer months (City of Johannesburg, 2009). Figure 3-2 below shows the average rainfall in Chartwell, Gauteng for the period 2009 to 2016.

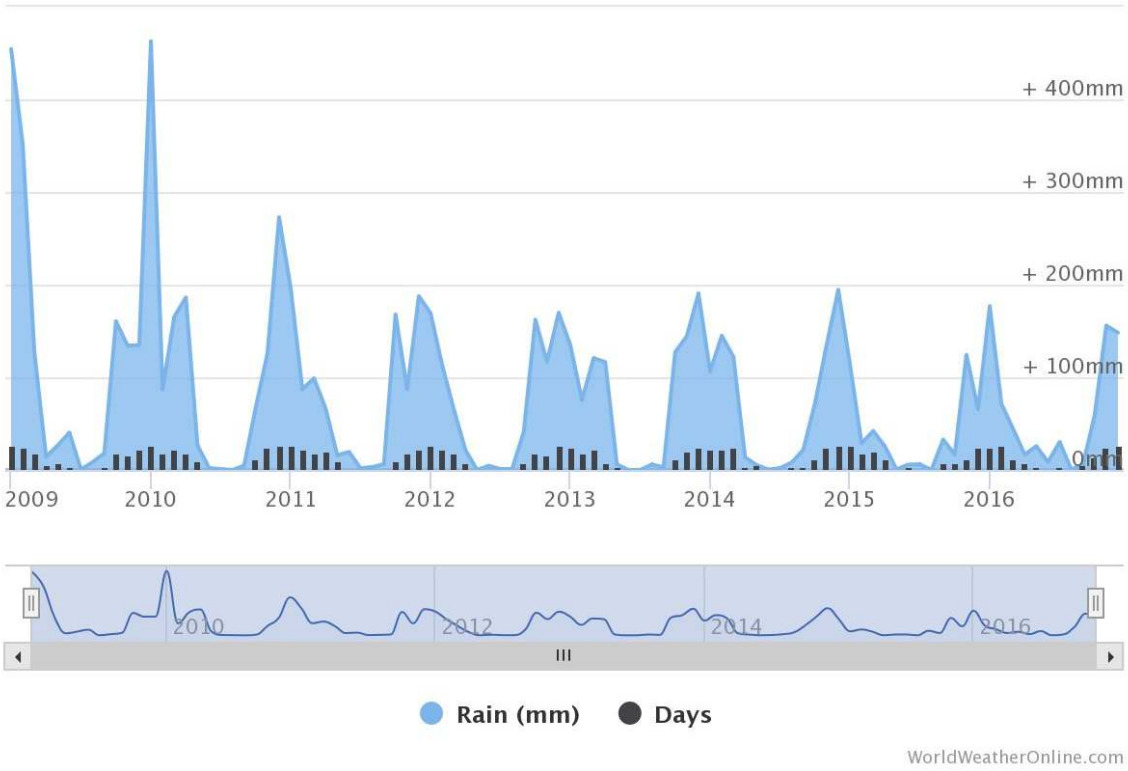


Figure 3-2: Average Rainfall Amount (mm) and Rainy Days (World Weather Online)

3.1.1 Implications

It is not expected that the proposed development will not impact on the existing local climate in the area.

3.2 Topography

3.2.1 Overview

The Site is located between approximately 1422m and 1392m above sea level. The general slope direction is towards the north with an elevation difference of 30m with an average gradient of 1: 20 sloping towards a natural low point located to the north of the site.

The 5m contours of the site are provided in Figure 3-3.

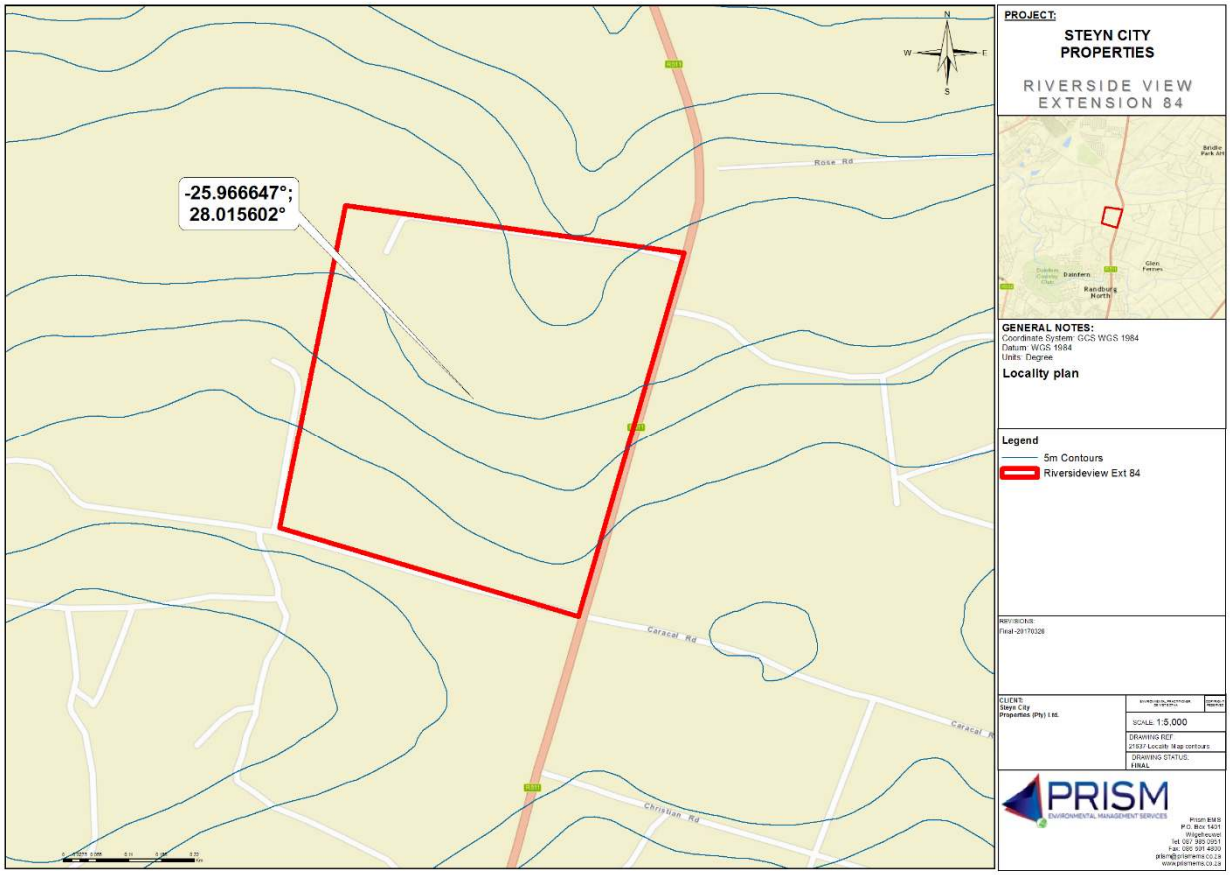


Figure 3-3: 5m Contours

3.2.2 Implications

The proposed development will result in minor changes to the topography of the site. Mitigation measures to ensure management of erosion and stormwater will be included in the EMPr.

3.3 Geology and Soils

3.3.1 Overview

Prism EMS utilized the Geology layers from the Council of Geosciences to produce maps showing the Chronostratigraphic layer. The proposed development is located on Pink-weathering granular or augen quartz-feldspar gneiss (Figure 3-4).

Figure 3-4: Geology

3.3.1 Implications

A Geotechnical Study has been undertaken on the site and will be included in the EIA Report. The EMPr will also include measures to mitigate against erosion.

3.4 Land Use

3.4.1 Overview

The site is currently vacant. A school and builders' yard were previously operational but have since been demolished.

3.4.2 Implications

The proposed development will require a change in the zoning of the proposed site to "Special". A town planning process is currently being undertaken. Details of the proposed zoning is provided under Section 4.

3.5 Agricultural Potential

3.5.1 Overview

According to the Gauteng Agricultural Potential Atlas IV, the site has low to moderate agricultural potential. No agricultural activities currently take place on site (Figure 3-5).

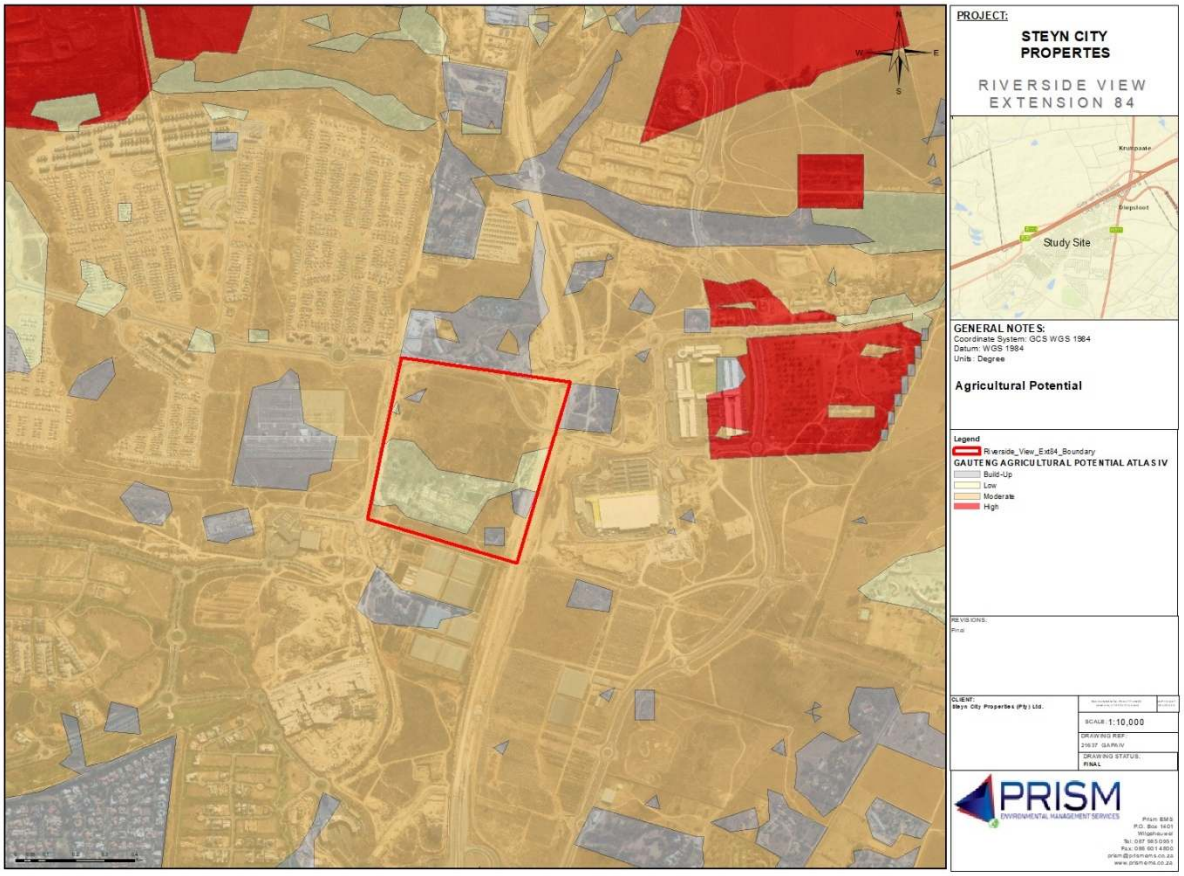


Figure 3-5: Agricultural Potential

3.5.2 Implications

The proposed development will not result in any loss of high potential agricultural land. No specialist study is therefore required.

3.6 Existing and Available Services

3.6.1 Overview

3.6.1.1 Water

A water reticulation master plan was prepared for the Diepsloot Corridor Development by GLS for Johannesburg Water. Riverside View Ext 84 falls within the Diepsloot Reservoir Supply Zone. The Diepsloot Reservoir is supplied with a connection to the Rand Water supply line (RW33). The higher lying portion of Steyn City (Riverglen Extensions), portions of Riverside View Ext 34 and the proposed Riverside View Ext 84 are to be supplied from the Diepsloot Reservoir via the Dainfern PRV. A portion of the existing Dainfern, Diepsloot South and areas east of the R511 are also supplied from this PRV.

In order to supply water to Riverside Extension 84 a connection to the existing Diepsloot Reservoir Supply zone will be required. This connection should be located downstream of the Dainfern PRV.

3.6.1.2 Sewer

The proposed Riverside View Extension 84 falls within the Diepsloot North Drainage Zone as described in the JW Masterplan for the Diepsloot Corridor Developments. The site drains towards the existing Bruma Outfall which is located to the north of the site (Figure X). The Bruma Outfall Sewer drains towards the Northern Outfall Sewer eventually terminating at the Northern Waste Water Treatment Works.

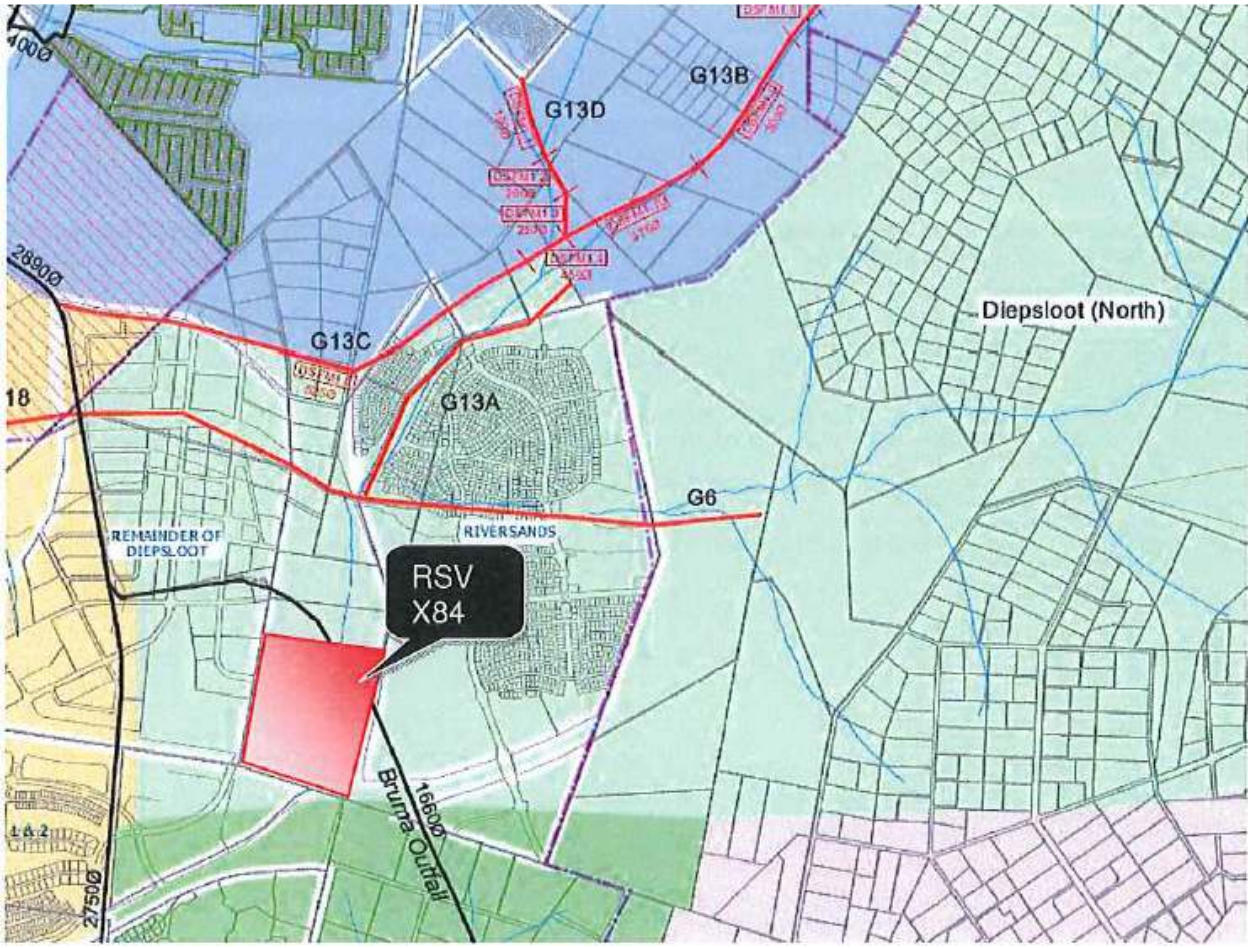
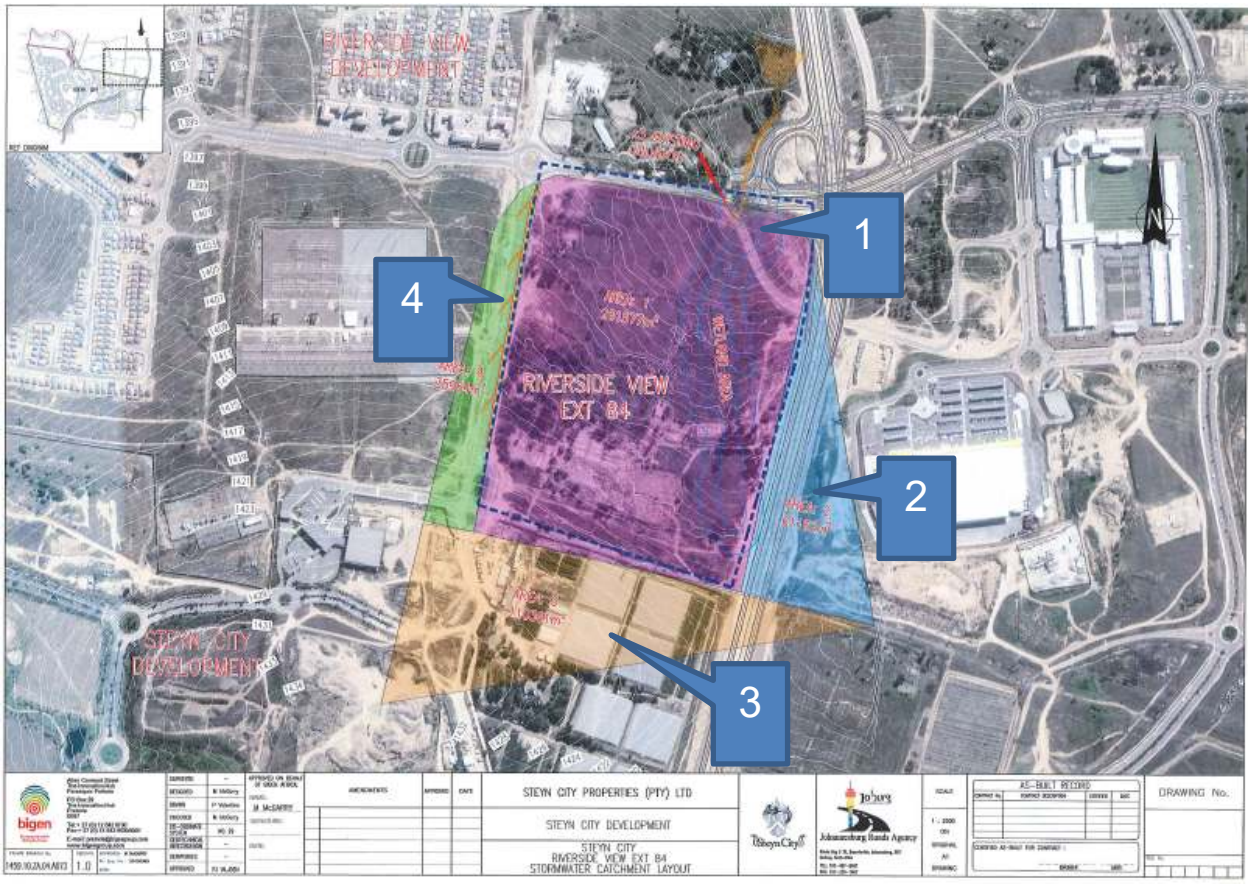


Figure 3-6: Diepsloot North Drainage Zone

As part of the development of Riverglen Erf 23, a 200mm diameter sewer line was constructed within the road reserve of View Road. This sewer pipeline connects to existing Bruma Outfall Sewer. Provision has been made for a future connection from Riverside View Ext 84 onto this sewer pipeline.

3.6.1.3 Stormwater

Existing stormwater systems are present within the areas surrounding the proposed development. The general catchment drains towards the perennial wetland area. View Road acts as a stormwater cut-off for stormwater from Catchment Area 4, with some external stormwater being discharged onto the site by means of an existing underground piped stormwater system. This pipe system daylights at the intersection of Porcupine Park Ave and View Road and discharges stormwater into a shaped earth channel towards the natural wetland.



External stormwater from Catchment Area 2 is cut-off by William Nicol Drive. Given that this road is a Provincial Road, the road will not serve as part of the Stormwater system and stormwater will be discharged onto adjoining properties. Provision should be made to during detail design to accommodate this additional run-off.

External stormwater from Catchment Area 3 originates from within the Steyn City Development. This catchment area drains towards Steyn City Boundary Wall and is discharged at the intersection of Zeven Road and William Nicol Dr into a pipe culvert and thereafter enters the proposed site as overland stormwater run-off.

Stormwater currently drains towards the natural low-point on the site. The temporary deviation of Porcupine Park Ave. acts as a stormwater cut-off and stormwater run-off is channelled through a series of 3 existing 600mm diameter pipe culverts which cross Porcupine Road and discharge stormwater into the area earmarked for the future Rose Road Interchange. Once the Interchange has been completed a new bulk stormwater system will be constructed to discharge stormwater from Riverside View Ext 84 and associated areas underneath the Interchange and eventually terminating in the Wetland area located north of the future Interchange.

3.6.2 Implications

Services are available for the proposed development and connections to existing bulk infrastructure will be made.

3.7 Existing Roads

3.7.1 Overview

Due to the fact that the study area as a whole is being developed, a number of future roads are planned as part of separate developments. These have been discussed below however, **it should be noted that these new roads do not form part of the proposed Riversideview Extension 84**. An overview of future and existing roads is provided in Figure 3-7.

3.7.1.1 Existing Roads

The proposed Riversideview Extension 84 is adjacent to William Nicol Drive (R511) to the east. Zeven Street occurs to the south of the proposed site. An existing temporary road (part of Porcupine Park Avenue) crosses the north-east of the site. However, this is likely to be replaced by a new interchange that is currently being constructed to the north of the site (Rose Interchange).

To the east of the site is View Road. Two accesses to the site will be taken off View Road.

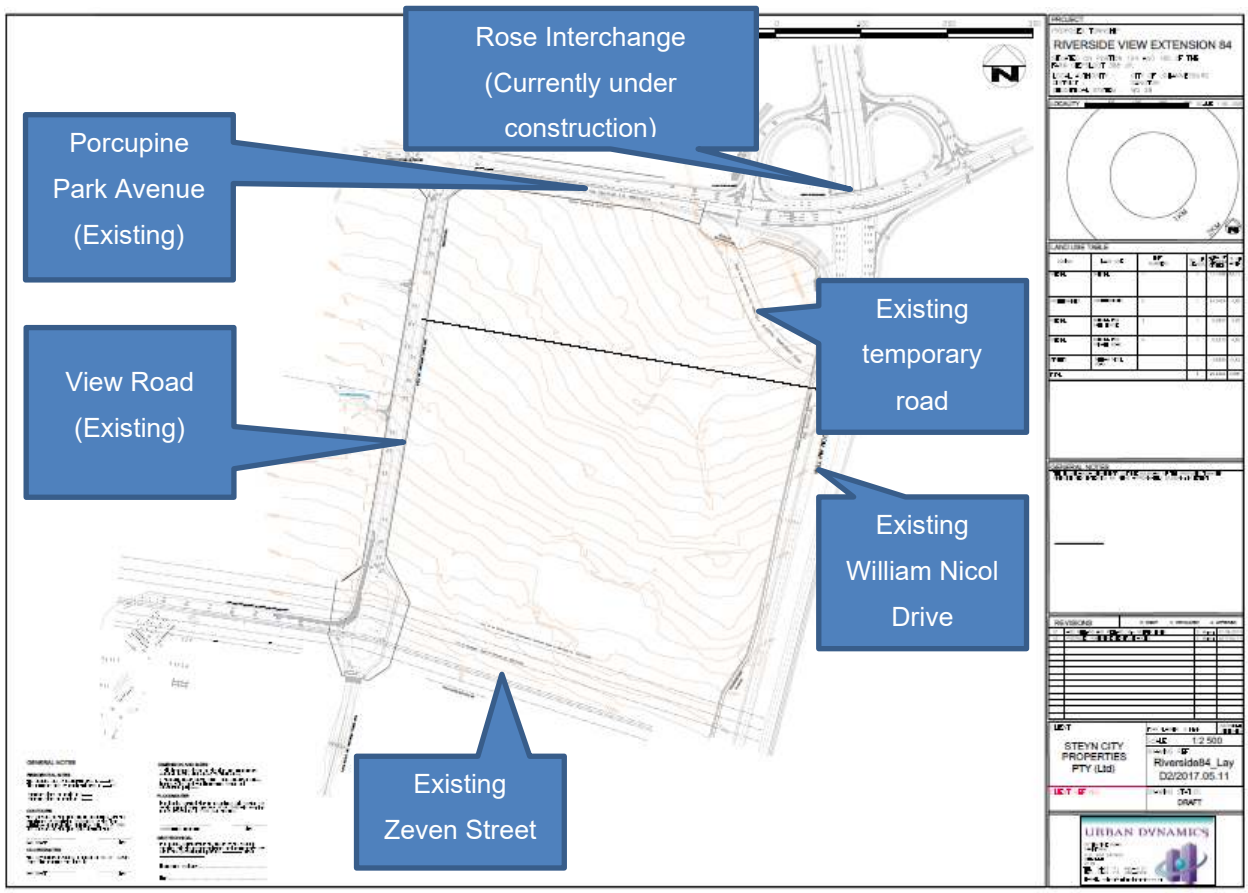


Figure 3-7: Future and existing roads

3.7.1 Implications

A Traffic Impact Assessment has been undertaken and will be included in the EIA Report to determine that there are no impacts on existing and future roads and to ensure that the proposed development does not result in unacceptable levels of traffic in the area.

3.8 Socio-Economic Environment

3.8.1 Overview

3.8.1.1 City of Johannesburg Socio-Economic Environment

The proposed development occurs within the City of Johannesburg in Gauteng. A summary of the socio-economic environment for the City of Johannesburg (obtained from StatsSA) is included below.

The City of Johannesburg Local Municipality is situated in Gauteng province and covers an area of 1 645km^2. The City is the provincial capital of Gauteng, the wealthiest province in South Africa. According to Census 2011 information, the area has a total population of 4,4 million of which 76,4% are black African, 12,3% are white people, 5,6% are coloured people, and 4,9% are Indian/Asian.

Figure 3-8 below shows that the majority of people in the area have either some primary school education (33.6%) or secondary education (30%). Only 20.8% of the population has completed secondary school and an even smaller percentage (5.3%) have higher education (Stats SA, 2017).

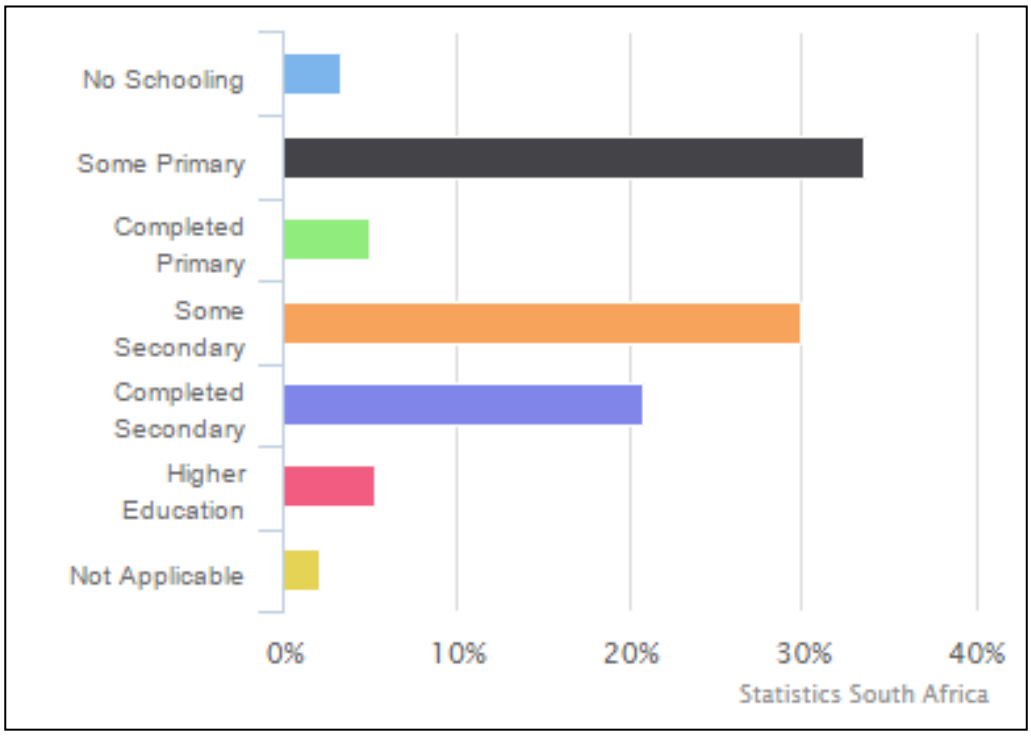


Figure 3-8: Highest Education Level (All Ages) (Stats SA, 2017).

Approximately 72.7% of the population are at a working age (15-64). Of those, approximately 52.6% (1 696 520 people) are employed (Figure 3-9). The unemployment rate for the area is 25%. Of the 1 228 666

economically active youth (15–35 years) in the area, 31,5% are unemployed. In terms of living conditions, there is 1 434 856 households in the municipality with an average household size of 2,8 persons per household. 64,7% of households have access to piped water, 26,9% have water in their yard and only 1,4% of households do not have access piped water (Stats SA, 2017).

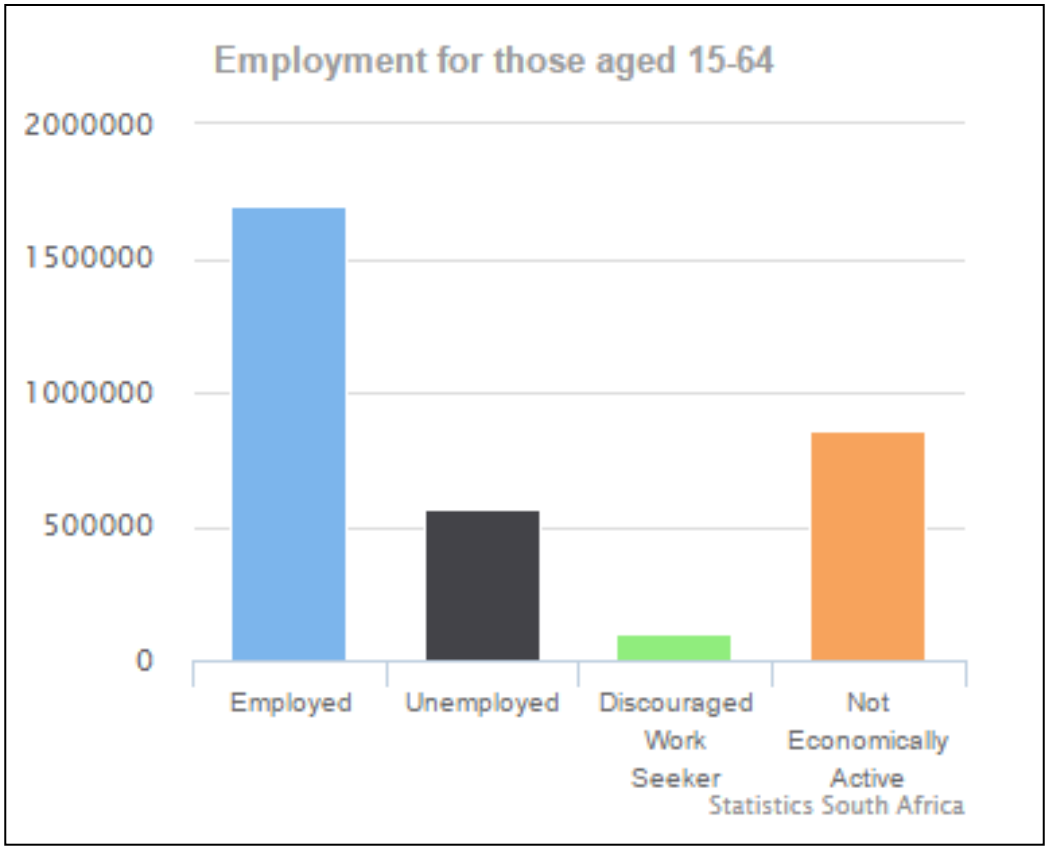


Figure 3-9: Employment for those aged 15-64 (Stats SA, 2017)

In addition to the above, the following planning documents and frameworks apply to the area and are discussed in more detail in the following subsections:

3.8.1.2 Regional Spatial Development Framework (RSDF), 2011: Administrative Region A:

The RSDF represents the prevailing spatial planning policy within the City of Johannesburg and is adopted in terms of the Municipal Systems Act, 2000 (Act No. 32 of 2000) as an integral component of the City's Integrated Development Plan (IDP).

The proposed development is situated within the City of Johannesburg Metropolitan Municipality in Region A. Region A, is one of seven administrative regions that make up the City of Johannesburg. It is located on the northern periphery of the City of Johannesburg Metropolitan area, bordered by Region C and Region E to the south, Mogale City Local Municipality to the west, City of Tshwane Municipality to the north and City of Ekhurhuleni Municipality to the east. The Greater Diepsloot and Greater Ivory Park areas are classified as Marginalised areas and are among the most prioritised areas in terms of the Growth Management Strategy (GMS).

The proposed study site is situated in Sub-Area 3 of Region A according to the Regional Spatial Development Framework. Sub-Area 3 consists mainly of the Diepsloot Nature Reserve and the marginalized area of Diepsloot West and Extensions. The remainder of the sub area includes agricultural holdings and farm portions that fall within and outside the Urban Development Boundary (UDB).

The Site falls inside of the Urban Development Boundary according to the 2010/2011 Regional Development Framework for region A and has three high priority development Objectives:

- To ensure socio-economic integration, infrastructure upgrading, consolidation and long-term sustainability of Diepsloot and Extensions.
- Strengthen the economic growth and social development of Diepsloot
- To enable access to housing and security of tenure in the contained Diepsloot and Extensions.

3.8.1.3 Gauteng Spatial Development Framework 2040 (GSDF)

The GSDF is part of the executive authority of the provincial government and an integral component of the governance structure of the province as a whole, and as such has to assist in ensuring the realization of national, regional, provincial and local development objectives.

The GSDF includes the following elements:

- An Integrated Natural Structure
- Transformation Zone
  - A strong, accessible and generative urban core
  - Corridors of Freedom
  - Unlocking Soweto as a true city district
  - Developing a Randburg – OR Tambo Corridor
  - Unlocking the Mining Belt
- The spatial economy
  - Priority Economic Zones
  - A hierarchy of nodes as a focus for growth, consolidation, and reinvestment
  - Public transport station nodes as a focus of growth (TOD)
- A Consolidation Zone
  - Deprivation areas
  - Established suburban, built up areas
- Reinforcing the Urban Development Boundary

Figure 3-10 below shows that the proposed Riverside View Ext 84 occurs within the Consolidation Zone. The focus of the Consolidation Zone is 1) to create liveable lower to medium density suburban areas that are well-connected to higher intensity areas through transit infrastructure and 2) address challenges in areas of deprivation.

As part of this, the city will therefore allow new developments that promote the goals and meet the requirements of the SDF, but do not require extensive bulk infrastructure upgrades. The proposed development is therefore in line with the GSDF 2040.

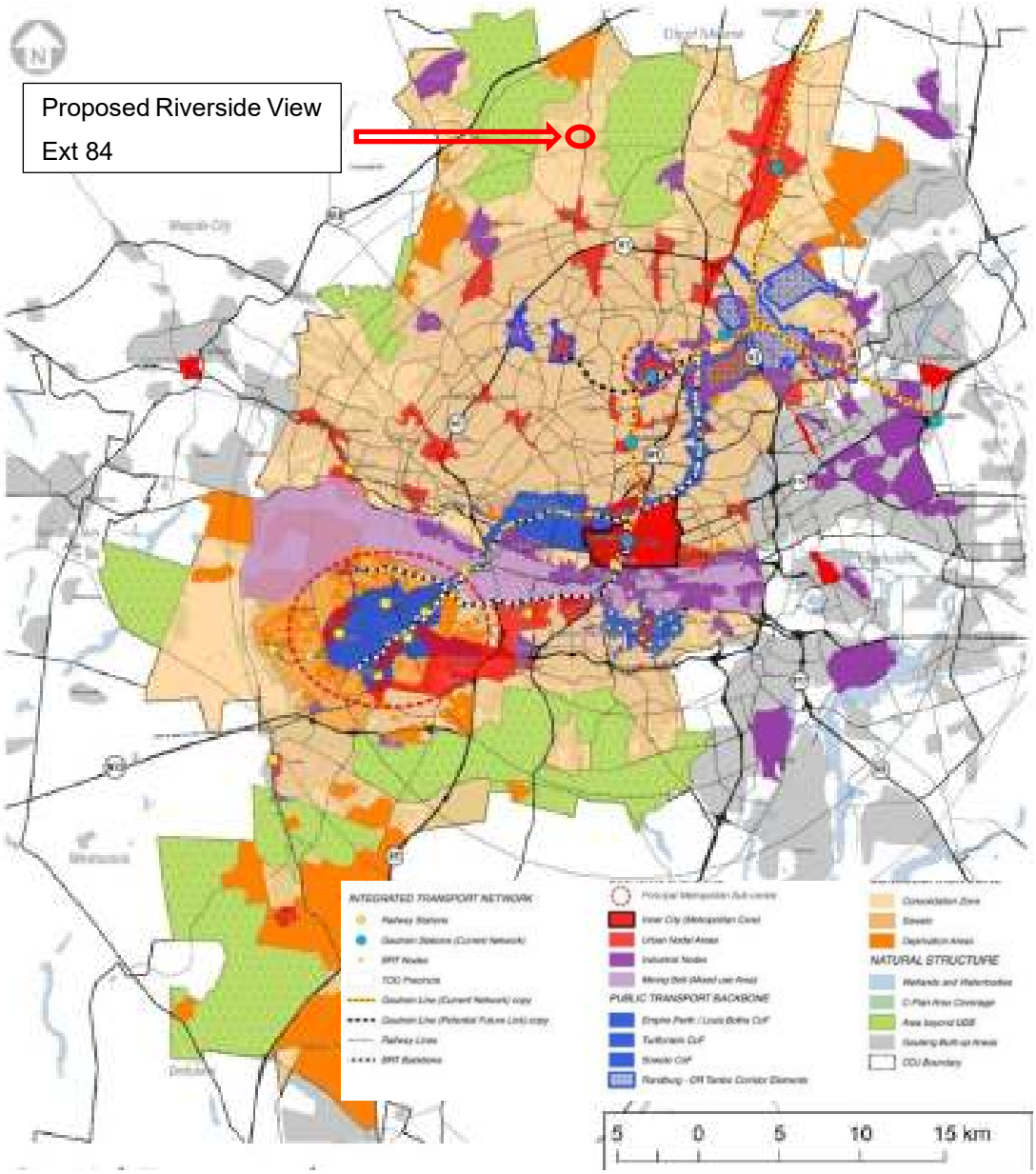


Figure 3-10: GSDF

3.8.1.4 CoJ 2017/2018 Integrated Development Plan

The recent CoJ 2017/2018 IDP notes the following 5 pillars that are central in addressing the challenges faced by the City. These include:

- Grow the economy and create jobs;
- Enhance quality of life by improving services and taking care of the environment;
- Advance pro-poor development that provides meaningful redress;
- Build caring, safe and secure communities; and

- Institute an honest, responsive and productive government.

As part of "Enhance quality of life by improving services and taking care of the environment", the City notes that there are 1 million people living in informal settlements in Johannesburg and there is a need for sustainable human settlements. Further, the IDP highlights the importance of the GSDF (discussed above).

3.8.1.5 Site Context

In the context of the site, the proposed development is in close proximity to the approved Steyn City development which is in the process of being constructed. It is also to the south east of the approved Riverside View Ext 28. William Nicol Drive runs along the eastern section of the site.

3.8.2 Implications

The proposed development will result in in capital investment in the area which will have a multiplier effect in the region. In addition, the proposed development will create a number of short term employment opportunities and is in line with various CoJ planning tools.

3.9 Biodiversity

3.9.1 Overview

An overall sensitivity map for the proposed site is indicated in **Figure 3-11** below. More information is then provided on each biodiversity feature in the subsections that follow.

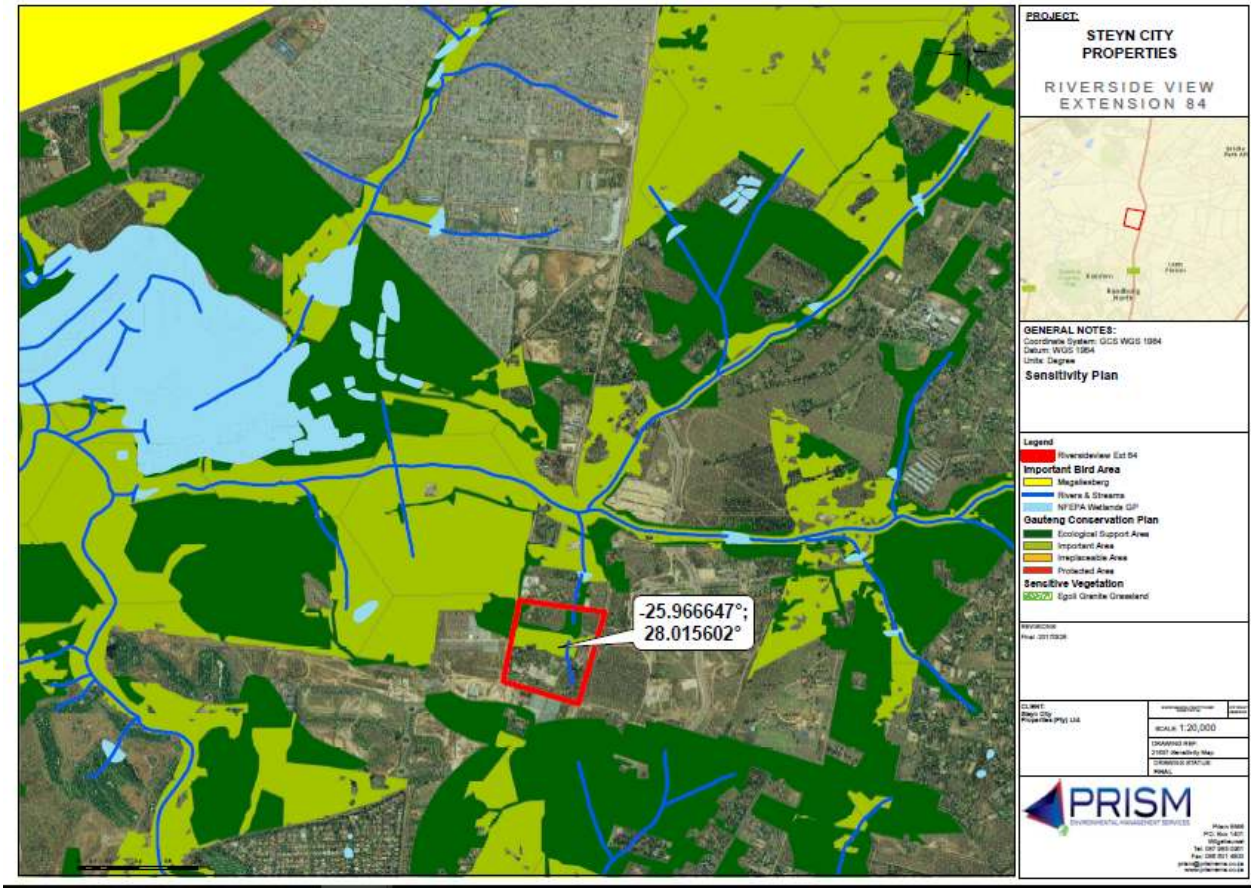


Figure 3-11: Desktop Sensitivity Map

3.9.1.1 Threatened Terrestrial Ecosystems

The first national list of threatened terrestrial ecosystems for South Africa was gazetted on 9 December 2011 (National Environmental Management: Biodiversity Act: National list of ecosystems that are threatened and in need of protection, (G 34809, GoN 1002), 9 December 2011). The purpose of listing threatened ecosystems is primarily to reduce the rate of ecosystem and species extinction. This includes preventing further degradation and loss of structure, function and composition of threatened ecosystems. The purpose of listing protected ecosystems is primarily to preserve witness sites of exceptionally high conservation value.

The proposed development occurs within the Egoli Granite Grassland which is classified as endangered. According to Mucina and Rutherford (2006), only about 3% of this unit is conserved in statutory reserves and a number of private conservation areas. More than two thirds of the unit have already undergone transformation mostly by urbanisation, cultivation or by building of roads. It should however be noted that the site is already disturbed by construction activities and by the previous school which occurred on site.

3.9.1.2 Gauteng Conservation Plan

Gauteng Conservation Plan (C-Plan) 3.3. is based on the systematic conservation protocol developed by Margules & Pressey (2000) and is based on the principles of complementarity, efficiency, defensibility and flexibility, irreplaceability, retention, persistence and accountability.

The main purpose of C-Plan 3.3 is to serve as the primary decision support tool for the biodiversity component of the EIA process, to inform protected area expansion and biodiversity stewardship programmes in the province and to serve as a basis for development of Bioregional Plans in municipalities within the province.

According the Gauteng C-Plan, part of the proposed site falls within a Critical Biodiversity Area (CBA): Important Area and Ecological Support Area (ESA). CBAs and ESAs are an imperative part of C-Plan 3 to ensure sustainability in the long term.

3.9.1.3 The Gauteng Provincial Environmental Management Framework (GPEMF)

The GPEMF is a legal instrument in terms of the Environmental Management Framework Regulations, 2010. The purpose of the regulations is to assist environmental impact management including EIA processes, spatial planning and sustainable development.

Most of the proposed development site occurs in Zone 1: Urban development zone. The intention with this zone is to streamline urban development activities in it and to promote development infill, densification and concentration of urban development, in order to establish a more effective and efficient city region that will minimise urban sprawl into rural areas.

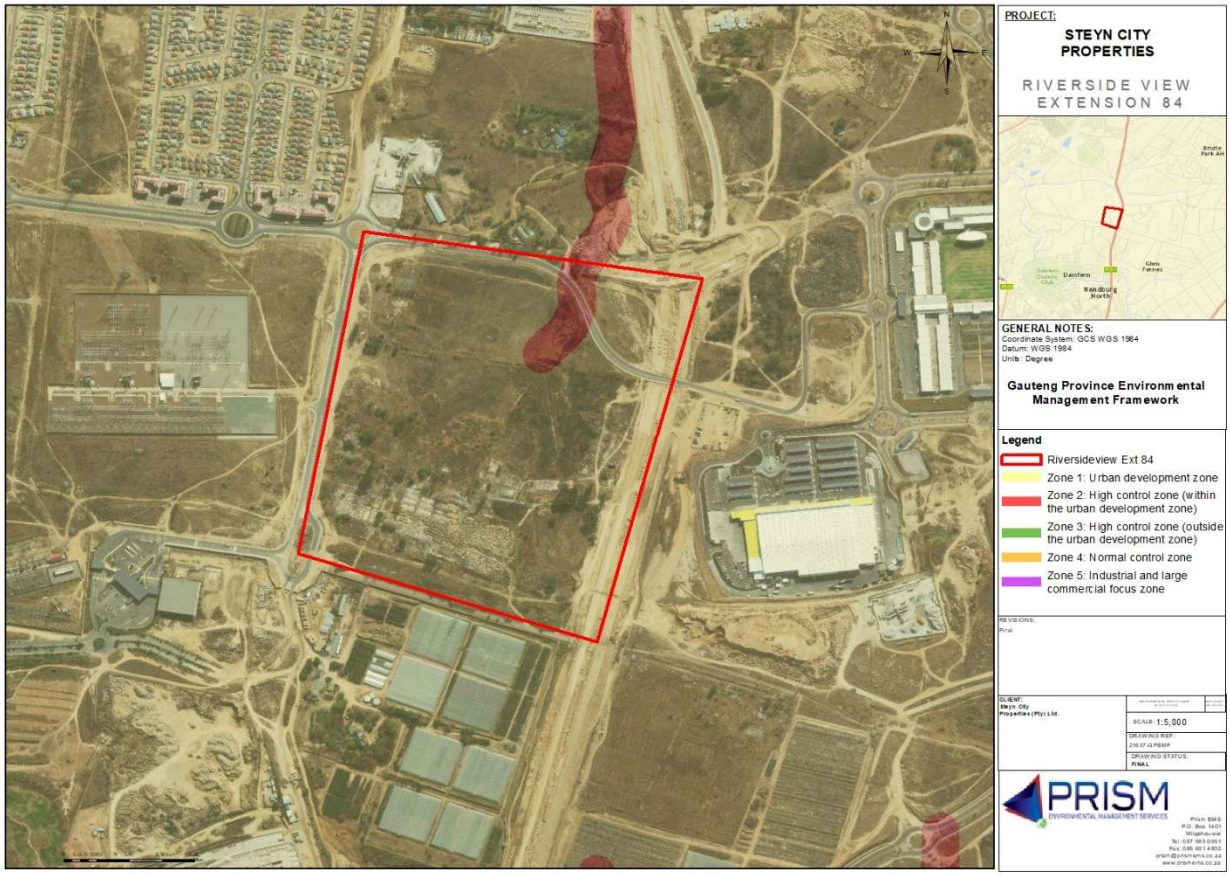


Figure 3-12: GPEMF

A very small section of the site, does fall within Zone 2 (High control zone within the urban development zone). This zone is sensitive to development activities. Only conservation should be allowed in this zone. Related tourism and recreation activities must be accommodated in areas surrounding this zone.

3.9.1.4 Important Bird Areas and Avifauna

The proposed development does not occur within any Important Bird Area (IBA). The closest IBA is the Magaliesburg IBA which is approximately 4.5 km to north-west of the site.

3.9.1.5 Protected Areas

According to the Protected Area Database for Quarter 4 of 2019, the proposed development is located near the Diepsloot Nature Reserve. It should however be noted that whilst still on the DEFF Protected Area Database, the Diepsloot Nature Reserve is no longer functioning and is the site of the Johannesburg Water Northern Wastewater Treatment Works.

Figure 3-13: Protected areas (South African Protected Areas Database, 2019 Quarter 4)

3.9.2 Implications

In order to determine the impacts of the proposed development on biodiversity, an Ecological Habitat Assessment will be undertaken and included in the EIA.

3.10 Surface Water

3.10.1 Overview

The site falls within Quaternary catchment area A21C, and is part of the new Limpopo Water Management Area (WMA) (previously Crocodile (West) and Marico WMA). According to desktop GIS information, a watercourse and wetland traverses part the site.

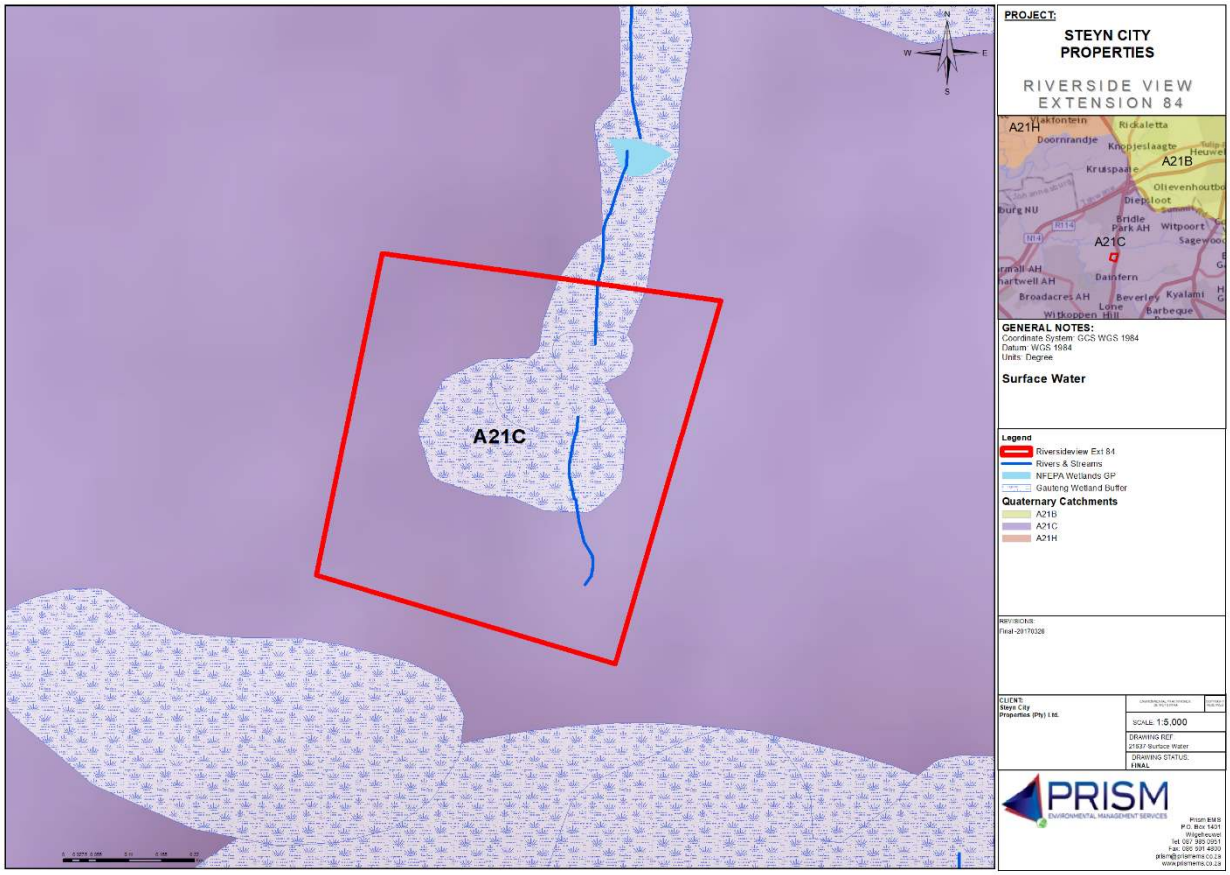


Figure 3-14: Surface Water

3.10.2 Implications

In order to determine the impacts of the proposed development on surface water, a Wetland Delineation Assessment will be undertaken and included in the EIA.

3.11 Archaeology and Cultural Heritage

3.11.1 Overview

3.11.1.1 Archaeology

There is no known heritage on site. Although the site is currently vacant, a school was previously in place but has since been demolished. It is therefore unlikely there is any heritage resources on site however, in line with the NHRA, a heritage impact assessment will be undertaken and included in the EIA Report.

3.11.1.2 Palaeontology

The Palaeontological (Fossil) Sensitivity Map developed by SAHRA has been reviewed and shows that the proposed site does not fall within an area with high fossil sensitivity. Instead, the site falls within an area of insignificant or zero sensitivity and no palaeontological studies are required (Figure 3-15 below).

1 in 250 000 geological formation layers are courtesy of the Council for GeoScience
For more information, go to How to Use the Palaeontological (fossil) Sensitivity Map

Colour	Sensitivity	Required Action
RED	VERY HIGH	field assessment and protocol for finds is required
ORANGE/YELLOW	HIGH	desktop study is required and based on the outcome of the desktop study, a field assessment is likely
GREEN	MODERATE	desktop study is required
BLUE	LOW	no palaeontological studies are required however a protocol for finds is required
GREY	INSIGNIFICANT/ZERO	no palaeontological studies are required
WHITE/CLEAR	UNKNOWN	these areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

Figure 3-15: Palaeontological (Fossil) Sensitivity Map (obtained from South African Heritage Resources Information System (SAHRIS) - https://sahris.sahra.org.za/map/palaeo)

3.11.2 Implications

A Phase 1 Heritage Impact Assessment (HIA) will be conducted to determine whether any heritage occurs on site. This will be included in the EIA Report.

4 SCOPE OF THE PROPOSED PROJECT

4.1 Environmental Authorisation

An "Environmental Authorisation" means an authorisation granted by the competent authority of a listed activity in terms of Section 24 of the National Environmental Management Amendment Act, (Act No. 107 of 1998). An application for Environmental Authorisation (EA) has been submitted to GDARD and the following reference number has been issued: **GAUT 002/17-18/E2040.**

As activities under Listing Notice 1, 2 and 3 of the 2014 EIA Regulations are triggered, a Scoping and EIA process is being conducted. The process being followed is detailed in Figure 4-1 below.

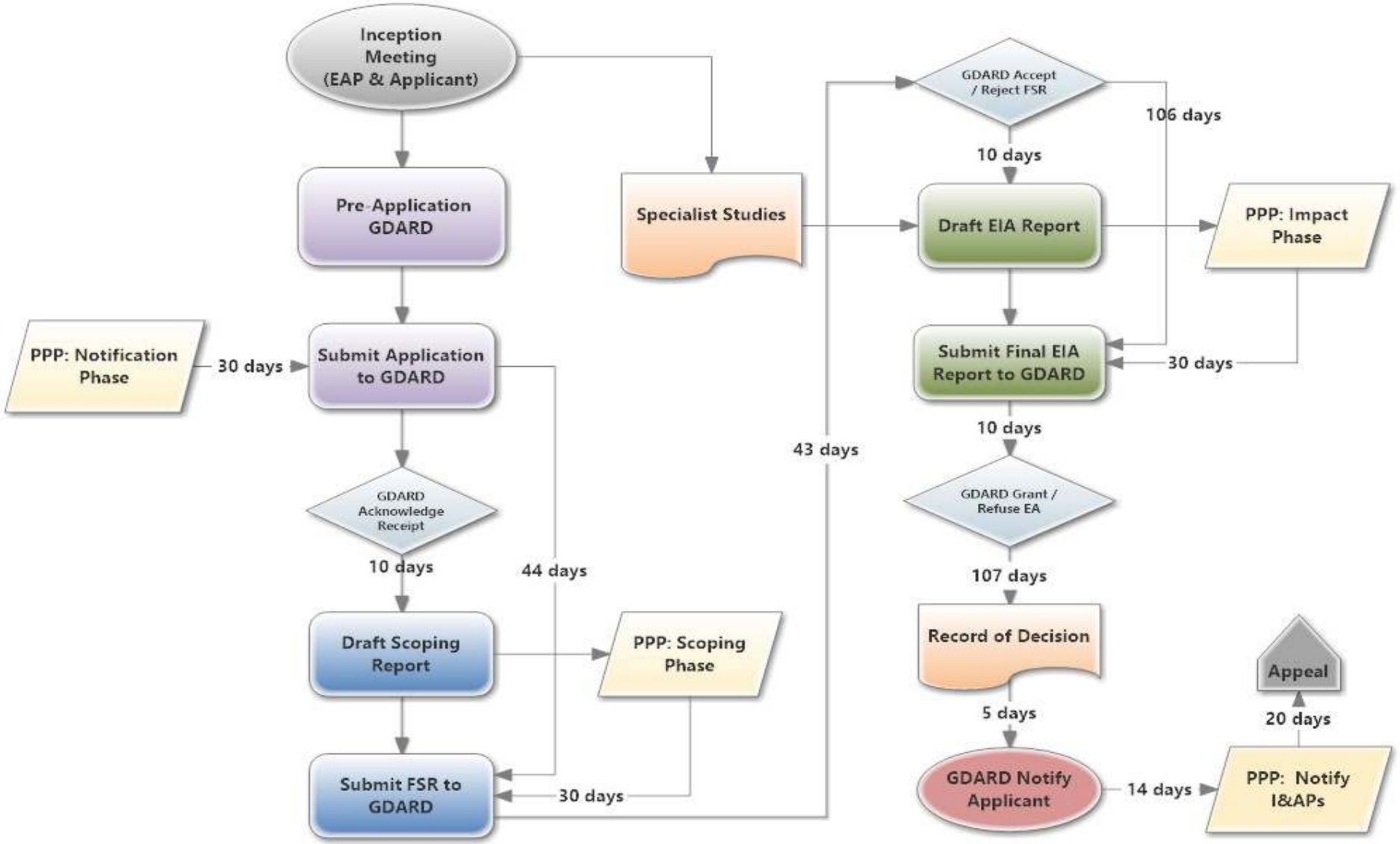


Figure 4-1: Proposed environmental authorisation process.

4.2 Listed Activities

In terms of the EIA Regulations and Listed Activities 2014 (introduced in Section 2.2.1), the activities that are triggered under the Listing Notices for this proposed development are provided in Table 4-1. Refer to Section 2 for a description and overview of the applicable legislative framework.

Table 4-1.: Description of the Listed Activities.

Listing Notice	Activity	Description of Listed Activity	Interpretation
NEMA: Listing Notice 1 (require Basic Assessment)			
GN R 983 4 December 2014 (as amended)	19 (i)	*The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from-* *(i**) a watercourse;*** *(ii) the seashore; or* *(iii) the littoral active zone, an estuary or a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever distance is the greater but excluding where such infilling, depositing , dredging, excavation, removal or moving-* *(a) will occur behind a development setback;* *(b) is for maintenance purposes undertaken in accordance with a maintenance management plan; or* *(c) falls within the ambit of activity 21 in this Notice, in which case that activity applies.*	The proposed development involves construction within a watercourse (for infrastructure such as a bridge and sewer connection point) and will thus involve excavation of more than 10 cubic metres from the watercourse as well as the infilling of more than 10 cubic metres of material into the watercourse.
NEMA: Listing Notice 2 (require Scoping and EIR)			
GN R 984 4 December 2014 (as amended)	15	*The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for the undertaking of a linear activity; or maintenance purposes undertaken in accordance with a maintenance management plan.*	The proposed development involves the development of approximately 29 hectares of land.
NEMA: Listing Notice 3 (require Basic Assessment)			
GN R 985 4 December 2014 (as amended)	4	*The development of a road wider than 4 metres with a reserve less than 13,5 metres.* ***c. Gauteng*** *i. A protected area identified in terms of NEMPAA, excluding conservancies;* *ii. National Protected Area Expansion Strategy Focus Areas;*	The proposed development will involve the development of internal roads. The site occurs within an area that is designated as Egoli Granite Grassland and a CBA Important Area and ESA. A small section of the site occurs within Zone 2 of the GPEMF which is a high control zone

Listing Notice	Activity	Description of Listed Activity	Interpretation
		iii. Gauteng Protected Area Expansion Priority Areas; ***iv. Sites identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng Conservation Plan or in bioregional plans;*** ***v. Sites identified within threatened ecosystems listed in terms of the National Environmental Management Act: Biodiversity Act (Act No. 10 of 2004);*** ***vi. Sensitive areas identified in an environmental management framework adopted by the relevant environmental authority;*** *vii. Sites identified as high potential agricultural land in terms of Gauteng Agricultural Potential Atlas;* *viii. Important Bird and Biodiversity Area (IBA);* *ix. Sites or areas identified in terms of an international convention;* *x. Sites managed as protected areas by provincial authorities, or declared as nature reserves in terms of the Nature Conservation Ordinance (Ordinance 12 of 1983) or the NEMPAA;* *xi. Sites designated as nature reserves in terms of municipal Spatial Development Frameworks; or* *xii. Sites zoned for conservation use or public open space or equivalent zoning*	within the urban development area.
	12	*The clearance of an area of 300m^2 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.* *C. Gauteng* ***i. Within any critically endangered or endangered ecosystem listed in terms of Section 52 of NEMBA or prior to the publication of such list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment, 2004****.* *ii****. Within Critical Biodiversity Areas or Ecological Support***	The proposed development involves the development of approximately 29 hectares of land. Part of the site falls within a CBA Important Part of the site falls within a high control zone in terms of the Gauteng Provincial Environmental Management Framework. Area and ESA area.

Listing Notice	Activity	Description of Listed Activity	Interpretation
		Areas identified in the Gauteng Conservation Plan or bioregional plans; *iii. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning.*	
	14	*The development of-* *(i) dams or weirs, where the dam or weir, including infrastructure and water surface area exceeds 10 square metres; or* *(ii) infrastructure or structures with a physical footprint of 10 square metres or more* *where such development occurs-* *a) within a watercourse;* *(b) in front of a development setback; or* *(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; -* *excluding the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour.* *c. Gauteng* *i. A protected area identified in terms of NEMPAA, excluding conservancies;* *ii. National Protected Area Expansion Strategy Focus Areas;* *iii. Gauteng Protected Area Expansion Priority Areas;* ***iv. Sites identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng Conservation Plan or in bioregional plans;*** ***v. Sites identified within threatened ecosystems listed in terms of the National Environmental Management Act: Biodiversity Act (Act No. 10 of 2004);*** ***vi. Sensitive areas identified in an environmental management framework adopted by the relevant environmental authority;***	The proposed development involves construction within a CBA Important area and ESA area. The site also occurs within Egoli Grassland. Part of the site falls within a high control zone in terms of the Gauteng Provincial Environmental Management Framework.

Listing Notice	Activity	Description of Listed Activity	Interpretation
		vii. Sites or areas identified in terms of an international convention; *viii. Sites managed as protected areas by provincial authorities, or declared as nature reserves in terms of the Nature Conservation Ordinance (Ordinance 12 of 1983) or the NEMPAA;* *ix. Sites designated as nature reserves in terms of municipal Spatial Development Frameworks; or* *x. Sites zoned for conservation use or public open space or equivalent zoning.*	

4.3 Description of Project Activities

4.3.1 Zoning

The proposed project involves the development of Riverside View Extension 84 on portion 124 and 185 of the Farm Diepsloot 388 JR in the City of Johannesburg, Gauteng. The layout of the proposed development is provided in Figure 4-2**.**

Figure 4-2: Layout

The site is 29.27 hectares in size and will be developed into three separate erven. The proposed use zones of these erven are described below (Table 4-2).

Table 4-2: Proposed Zoning

Erf 1 and 2	
Zoning	**Special**: Place of Instruction, Residential dwelling units, Residential buildings, Storage, Offices, including ancillary uses such as restaurants and shop
FAR	0.6
Height	As per Scheme. 5 Storeys excluding basements and architectural features
Coverage	As per Scheme. The coverage shall be determined in terms of an approved Site Development Plan
Density	20 dwelling units / hectare
Parking	As per Scheme and may be relaxed by the local authority
Building Line	16m building line along its boundary with William Nicol Drive (K46). 5m along all other street boundaries, provided that all building lines may be relaxed upon evaluation of the Site Development Plan. 0 metres along the shared erf boundary between Erven 1 and 3, as well as Erven 2 and 3 Riverside View Ext 84.
General	1. A general Right of Way Servitude to be registered over Erven 1 and 3 in favour of Erf 2 until the water use licence is obtained and access is determined to Erf 2. 2. Access shall be to the satisfaction of the local authority 3. A Site Development Plan compiled to a scale of 1:200, or such other scale as approved by the local authority shall be submitted to the local authority for approval prior to the submission of any building plans. No building may be erected prior to the approval of such development plan by the local authority and the entire development shall be in accordance with this plan: provided that the plan may from time to time be amended with the written approval of the local authority. Such Site Development Plan shall show all the environmental sensitivity areas and the location and extant of the wetlands as determined in terms of the wetland assessment and delineation to be done
Erf 3	
Zoning	Private Open Space
FAR	As per scheme (0.01)
Height	As per Scheme. 1 Storey, excluding architectural features
Coverage	As per scheme
Density	Not Applicable
Parking	As per Scheme and may be relaxed by the local authority
Building Line	As per Scheme 16m along William Nicol Drive (K46) 2m on all boundaries
General	1. A general Right of Way Servitude to be registered over Erven 1 and 3 in favour of Erf 2 until the water use licence is obtained and access is determined to Erf 2. 2. Access shall be to the satisfaction of the local authority

	3. A Site Development Plan compiled to a scale of 1:200, or such other scale as approved by the local authority shall be submitted to the local authority for approval prior to the submission of any building plans. No building may be erected prior to the approval of such development plan by the local authority and the entire development shall be in accordance with this plan: provided that the plan may from time to time be amended with the written approval of the local authority. Such Site Development Plan shall show all the environmental sensitivity areas and the location and extant of the wetlands as determined in terms of the wetland assessment and delineation to be done 4. The ROD (Environmental Authorisation) received from GDARD shall be complied with as well as compliance with the Ecological Management Plan.

A preliminary site development plan (SDP) has been developed and is indicated in Figure 4-3. It should however be noted that this SDP can only be finalized during the City of Johannesburg SDP approval process. A copy of the final SDP will then be submitted to GDARD.

The main uses indicated in the Preliminary SDP are as follows:

- School buildings and associated fields and parking areas;
- Residential areas; and
- Offices.

Necessary roads and services are also included.

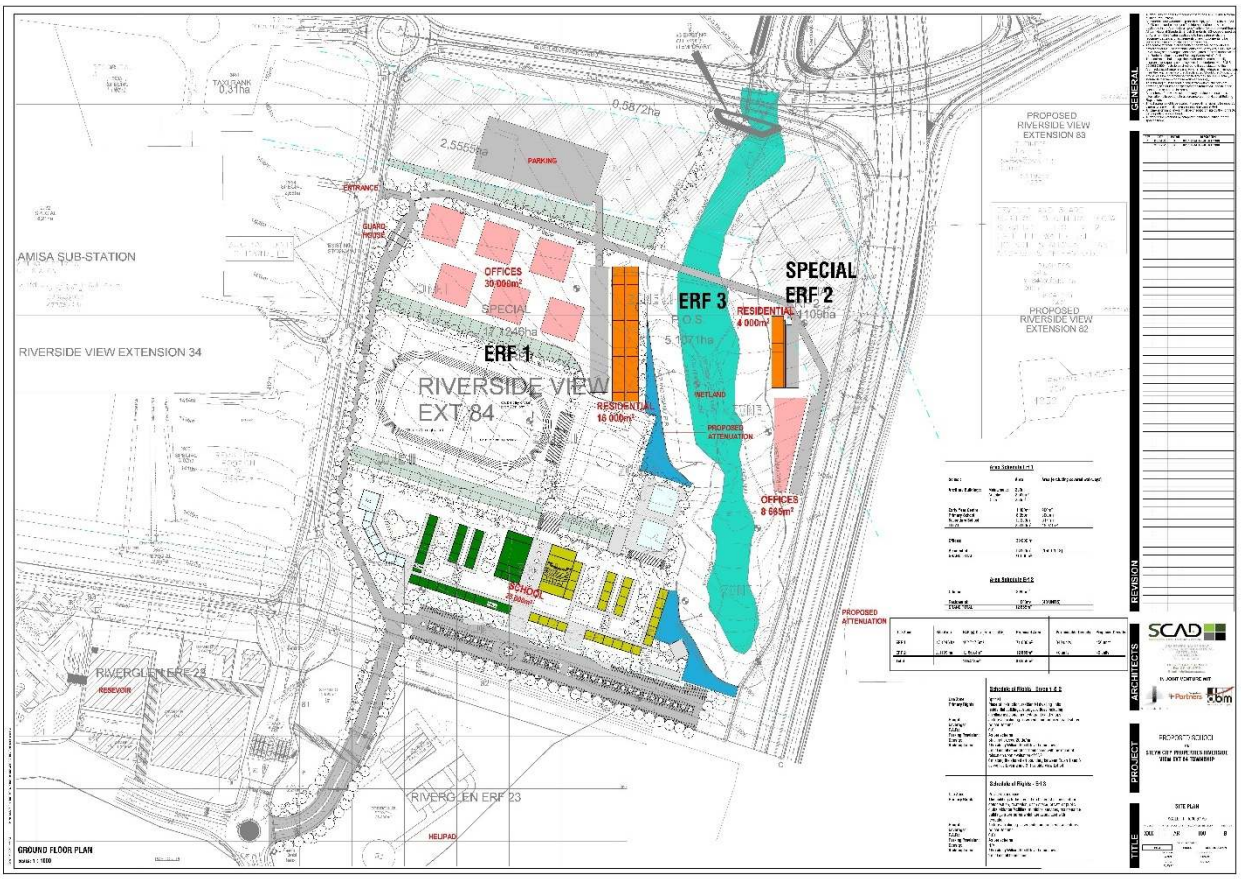


Figure 4-3: Preliminary Site Development Plan

Planned services will be put in place and are described in the sections that follow:

4.3.2 Water

In order to supply water to Riverside Extension 84 a connection to the Diepsloot Reservoir Supply zone will be required. This connection should be located downstream of the Dainfern PRV. This link water line, the proposed connection point to the Diepsloot Supply Zone and the proposed supply point for the development are indicated Figure 4-4 below.

The design and positioning of valves, fire hydrants, PRV valves, chambers and other fittings will be dealt with in the detail design phase. From the connection point a formal water reticulation system will then be constructed within the development, where water connections to individual stands forming the township will be made.

Water pipes construed with the Council Road Reserve will be constructed to Johannesburg Water Design Guidelines and Standards and will be handed over to the Council upon completion. The water reticulation within each stand of the development will remain private and maintained by the registered Body Corporate.

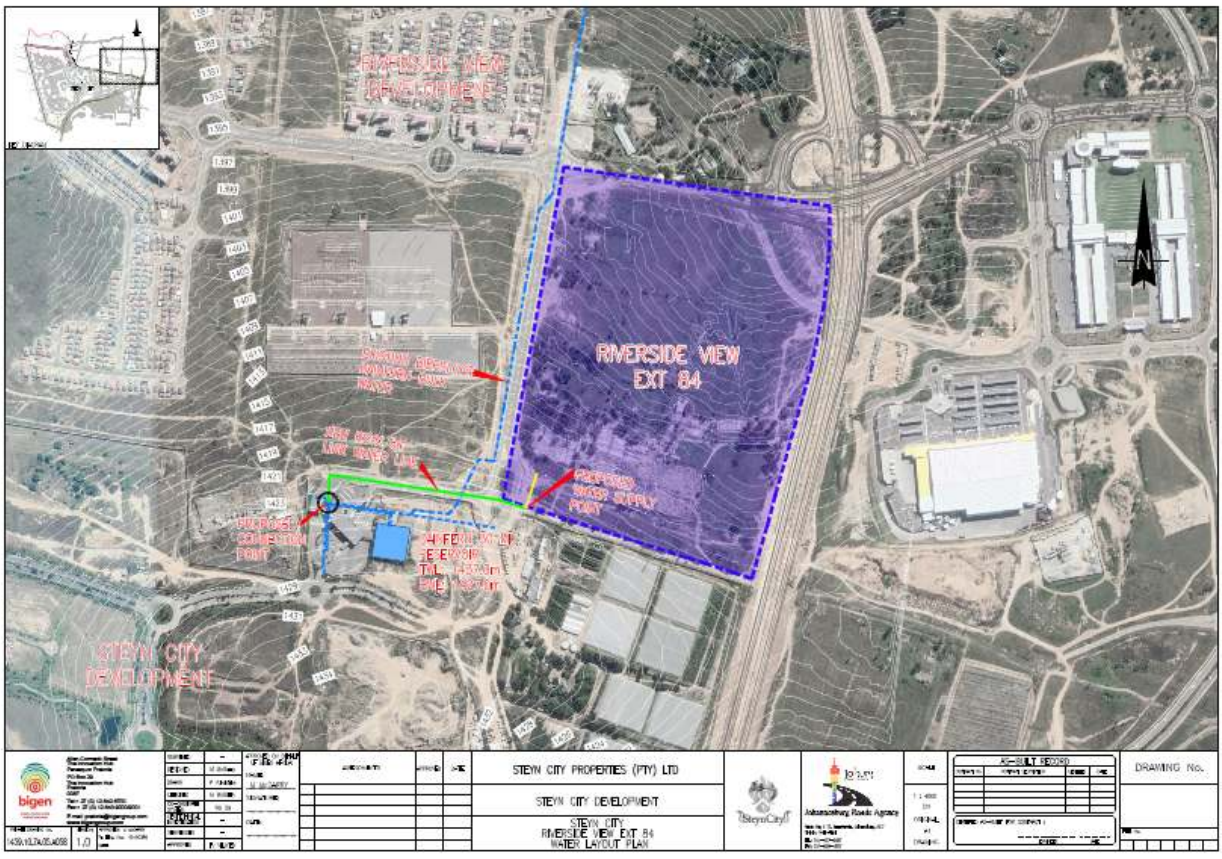


Figure 4-4: Water Services

The design of the water reticulation required for the development will accommodate the ultimate demands anticipated. The total average annual daily demand for Riverside View Ext 84 amounts to 0.48 Mℓ/day, with a peak hour demand total 24.99ℓ/s. Relevant water design standards for the development are summarized in Table 4-3.

Table 4-3: Water Design Standards

	Parameter	Element	Guideline
1	Level of service	Water connection per unit	–
2	Pressure	Maximum (Static) Minimum (at peak flow)	9.0 bar 2.0 bar
3	Maximum flow velocities	Diameter ≤150 mm Diameter ≥ 200 mm	1,0 m/s – 3,5 m/s 1,5 m/s – 2,5 m/s
4	Pipe Materials	Erf Connections Distribution main ≤ 200mm	HDPE Class 12 uPVC Class 12 with spigot and socketed couplings
5	Pipe size	Network Pipes Adjacent house connections House connections across street	110 mm minimum 25mm minimum 32mm minimum 25mm minimum 2-4 stands 32mm minimum

4.3.3 Sanitation

The proposed Riverside View Extension 84 falls within the Diepsloot North Drainage Zone as described in the JW Masterplan for the Diepsloot Corridor Developments. The site drains towards the existing Bruma Outfall which is located to the north of the site. The Bruma Outfall Sewer drains towards the Northern Outfall Sewer eventually terminating at the Northern Waste Water Treatment Works.

As part of the development of Riverglen Erf 23 a 200mm diameter sewer line was constructed within the road reserve of View Road. Provision has been made for a future connection from Riverside View Ext 84 onto this sewer pipeline (Figure 4-5).

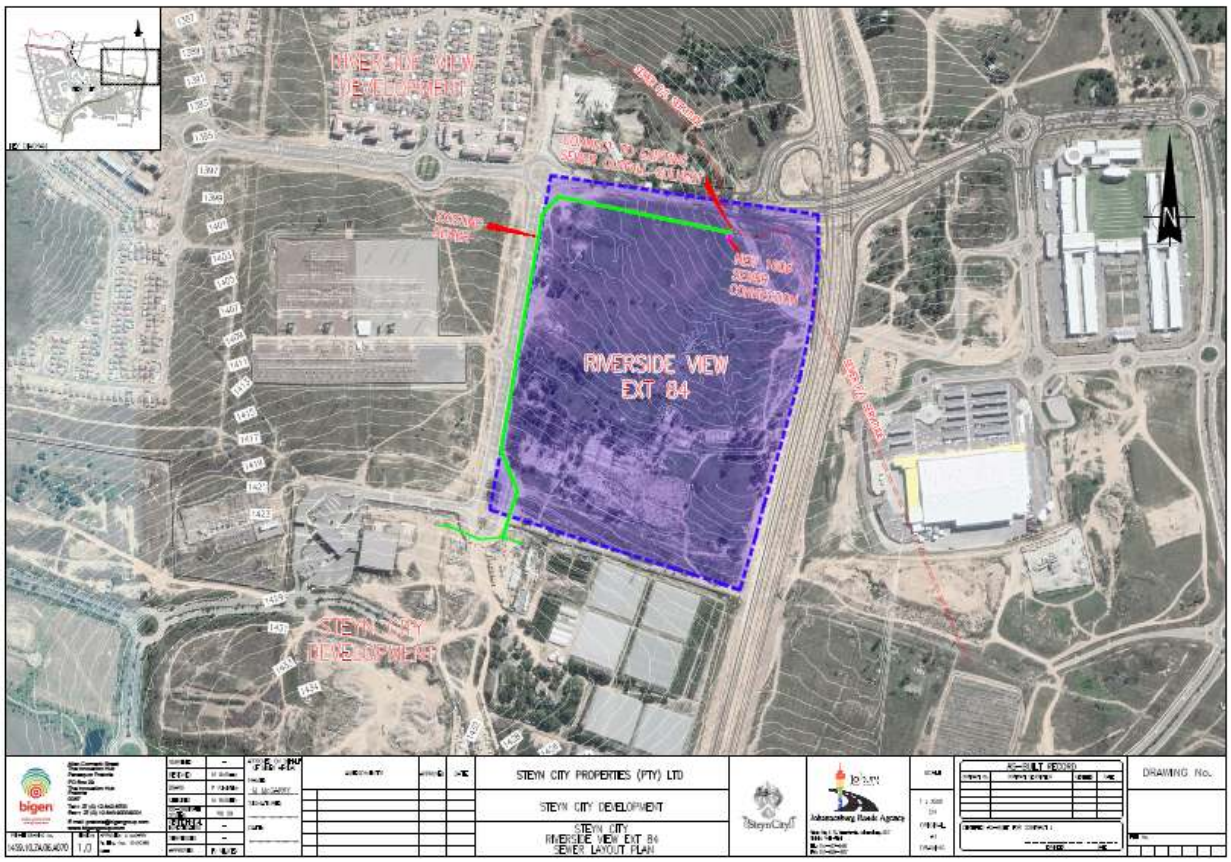


Figure 4-5: Sewer Services

The relevant sewage design standards which have been taken into account in the design of the services are indicated in Table 4.4.

Table 4-4: Sewer Design Standards

	Parameter	Element	Guideline
1	Minimum pipe diameter	Gravity sewers Connections	160mm 110mm
2	Minimum Velocity at full flow	Gravity sewers Rising mains	0,7 m/s 0,7 m/s
3	Pipe capacity	Flow level in pipe as percentage of diameter	67% at design flow
4	Minimum Gradients for Pipes	100 mm dia 150 mm dia 200 mm dia 300 mm dia and bigger	1 : 60 1 : 140 1 : 200 1 : 350
5	Pipe Materials	All pipes	uPVC Class 34
6	Connections	For Stands	110 mm uPVC with slip on couplings

4.3.4 Stormwater

The proposed stormwater system for the Riverside View Ext 84 development is divided into infrastructure required to drain the minor stormwater flood (1:5 year recurrence period) and the major stormwater flood (1:25 year recurrence period).

The minor stormwater system consists primarily of lateral kerb inlets, junction boxes, field inlets, overflow channels and pipe culverts.

The major stormwater system primarily consists of pipe culverts.

Further, in line with the requirements of the Johannesburg Roads Agency (JRA), stormwater attenuation will be provided to reduce the increased stormwater run-off resulting from the development to pre-development volumes through the incorporation of Stormwater attenuation ponds in the stormwater system.

The proposed position of the location of an attenuation pond for Riverside View Ext 84 is indicated in Figure 4-6. The proposed attenuation dam will attenuate stormwater run-off from Erf 1 and 2. The existing stormwater system on View Road currently discharges in the area earmarked for the attenuation pond, this system will be incorporated into the design of the attenuation pond. Stormwater run-off generated by the development of Riverside View Ext 84 will be attenuated to predevelopment volumes so as to not adversely affect the Wetland area downstream, which is where stormwater will eventually be discharged

JRA recommends that for each hectare of developed land, 350m^3 of attenuation storage should be provided. To comply with the required attenuation storage measures the developable area of 17.72 hectares, which excludes the private open space and powerline servitudes which will not contribute additional runoff, was used to determine the required storage volume. The dam should be designed to have a minimum storage of 6200m^3, with a target depth of 1.5m an area of approximately 4150m^2 should be set aside for attenuation purposes.

Open grass lined channels or energy dissipation structures will be constructed where stormwater pipes daylight.

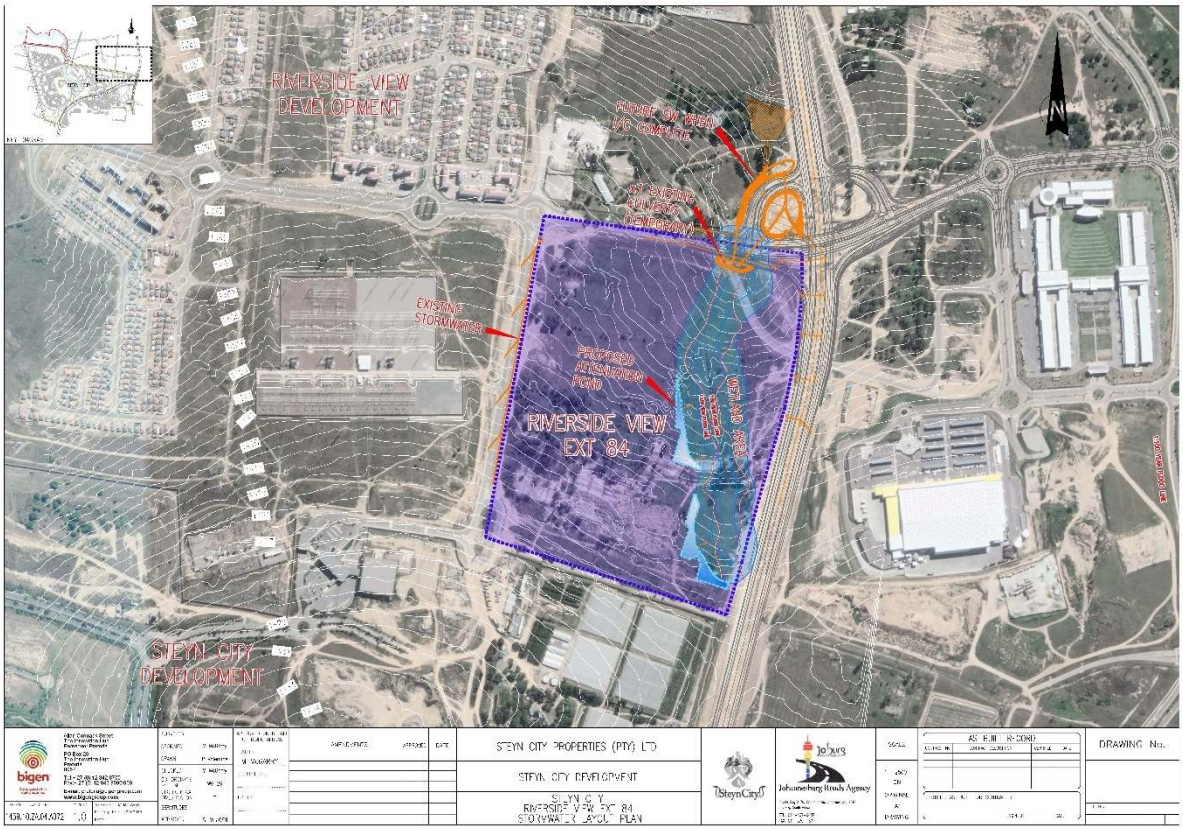


Figure 4-6: Stormwater

4.3.5 Roads and Access

Regional access to the proposed development site will be from the future Rose Road/William Nicol Interchange. The future extension of Rose Road will continue and eventually merge with the east-west road, Porcupine Park Avenue. View Road serves as the north-south link to the development. There will be 3 accesses to the development. These are as follows:

- Access off View Road
  - The access is situated on the western boundary of the property, approximately 150m south of the intersection of Porcupine Park Avenue and View Road directly opposite the Eskom substation site access.
- Second access off View Road
  - The access is situated on the western boundary of the property, approximately 300m south of the intersection of Porcupine Park Avenue and View Road directly opposite the existing Eskom substation site access.
- Southern access
  - This access will be an internal link road from the existing Steyn City. This is considered the main access to the township as a large number of trip generated by the proposed development are expected to originate from within Steyn City and will make use of this access.

main access to the proposed development will be off View Road as indicated in Figure 4-7 whilst secondary access will be from Steyn City (to the south).

A number of internal roads will be put in place. Internal roads will not be taken over by the Local Authority and will be maintained by the Body Corporate set up as part of the development management.

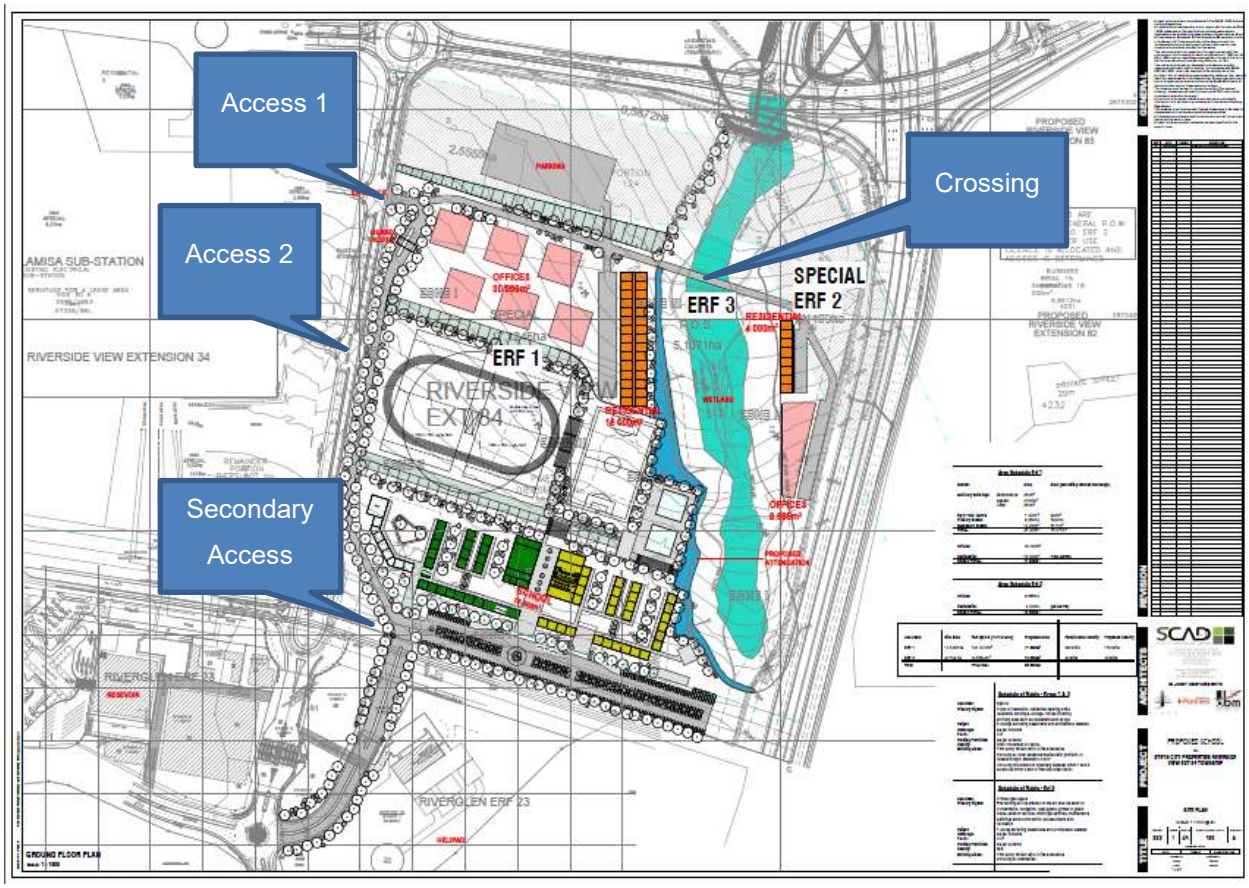


Figure 4-7: Road layout plan

4.3.6 Bridge across wetland

In order to allow access to the small erf to the east of the site, a bridge across the wetland is required. The proposed location of the crossing is also shown in Figure 4-7 above. More detail will be provided during the EIA Phase.

4.3.7 Electrical Capacity

The proposed development will require approximately 6 MVA capacity. Eskom has confirmed that capacity is available. Eskom Transmission has also confirmed that the site is affected by the proposed Kyalami-Lulamisa 400 kV powerline servitude which is 110m wide. The servitude has been taken into account in the development layout. Eskom's requirements will also be incorporated into the EMPr.

4.4 Project Life-Cycle

To adequately consider the impacts associated with the proposed development, the major activities during each phase of the project life-cycle are listed below:

- Feasibility Studies
    - Technical, economic and environmental screening of alternatives;
    - Development of Outline Scheme Report;
    - Geotechnical Assessment; and
    - Environmental Authorization and WULA process.
- Pre-construction Phase
    - Detailed layouts and services designs;
    - Procurement process for Contractors; and
    - Procurement of other necessary materials.
- Construction Phase
    - Appointments and site camp set up:
        - Appoint Environmental Control Officer;
        - Set up site camp with temporary offices and administrative facilities;
        - Set up ablutions;
        - Set up access control, security; signage and lighting;
        - General materials storage and laydown areas
        - Construction employment;
        - Change-houses, chemical toilets and showering facilities (linked to conservancy tanks – removal of contents by exhauster vehicle and disposal at permitted facility); and
        - Temporary waste storage areas; these shall be established and managed in accordance with EMPr requirements to be developed in the EIA phase.
    - Sourcing of construction materials and equipment:
        - All bulk materials (aggregate, cement, steel etc.) will be sourced from existing lawful commercial sources; there will be no direct mining, harvesting or extraction of natural resources. Where possible local suppliers should be preferred.
    - Excavation and earthworks
        - Removal of existing surfacing material where necessary (concrete, asphalt etc.) which could involve excavation below ground level;
        - Levelling and compaction using heavy machinery / earthmoving equipment.
        - Potential for excavations and trenching in order to lay of below ground level equipment (cables, pipes, sumps, drainage etc.);
        - Potential for excavation dewatering in the event of water-table interception;
        - Use of general mechanical equipment within construction areas (generators, cutting and welding equipment, compressors etc.).
- Operation Phase:
    - Operation of facilities;
    - Maintenance of infrastructure.

- Decommissioning Phase
    - Decommissioning of the development and associated services is not envisioned. However, should decommissioning be required the activity will need to comply with the appropriate environmental legislation and best practices at that time.

5 MOTIVATION FOR NEED AND DESIRABILITY

In terms of Section 2 (f) of Appendix 2 of GN 921 of 4 December 2014, this section discusses the need and desirability of the project which has been assessed in terms of Notice 891 of 2014 which is the updated guideline available regarding need and desirability. In line with this, the consideration of "need and desirability" included consideration of the strategic context of the proposed re-alignment along with the broader societal needs and the public interest.

5.1 Overview

The consideration of "need and desirability" included consideration of the strategic context of the proposed development along with the broader societal needs and the public interest. In order to better understand the need and desirability, one needs to understand the proposed development. The proposed zoning of the development will be Special for: *Place of Instructions, Residential buildings and Offices, including ancillary uses such as restaurants and shops* and aims to provide a school, offices and residential buildings. Private Open space will also be incorporated into the development which forms part of the Steyn City Development.

Steyn City supplies residential units at various densities and at various residential typologies, sport and recreational facilities including a golf course, equestrian uses, educational facilities, community facilities, supportive retail and office development as well as large tracts of active and passive recreation open space. The entire Steyn City Lifestyle Estate contains a number of higher density villages together with low density uses and open space elements such as the Jukskei River and other environmental sensitive areas. Riverside View Extension 84 will be developed in line with this concept.

The proposed use of the site for the primary rights will fulfil a need for an all-phase school / residential use / storage / offices with ancillary shops and restaurants, to cater for the varying demands of the residents of Steyn City Estate. There is therefore a need for such a development especially in light of the fact that there is an increasing need for the provision of adequate schools in close proximity - or within the secure environment - of an upmarket estate, which is also located close to transport, employment and other urban opportunities. In particular, we note that the provision of adequate schooling and housing is a basic human right, which every South African is entitled to. In order to cater for a necessary sized school, a site that is big enough is required. The site is outside Steyn City but close enough to allow easy access from Steyn City as well as access from a point outside of the main access gate of Steyn City.

Furthermore, the proposed rights for the Riverside View Ext 84 Township includes provision for residential buildings and residential densities of up to 20 dwelling units per hectare. This will contribute towards the supply of residential land, by better utilization of the land.

The location of the proposed development along William Nicol Drive and the future interchange adjacent to and north-east of the site is also desirable, since it provides for easy access from William Nicol Drive (K46), via Porcupine Park Avenue to Riverside View Ext 84. The development is also close to existing engineering services and road network, which is presently being upgraded.

The residential land use is also complementary to the other proposed land uses of Riverside View Ext 84 as well as the land uses of the neighbouring Steyn City Lifestyle Estate, to which it will be linked.

In terms of the Gauteng Provincial Environmental Management Framework, the majority of the proposed development falls within Zone 1. A small section falls within Zone 2 however, the development footprint is excluded from this area. The proposed development is thus in line with the intention of the zone 1 which is to: "streamline urban development activities in it and to promote development infill, densification and concentration of urban development within the urban development zones as defined in the Gauteng Spatial Development Framework (GSDF), in order to establish a more effective and efficient city region that will minimise urban sprawl into rural areas." Further, as the development is within the urban development boundary, the proposed development will promote compact city development. A wetland area has been identified on site however has been delineated and the wetland and 32m buffer have been excluded from the development footprint.

5.2 Need and Desirability Table

In addition to the above, the following questions have also been addressed in line with the Guideline for Need and Desirability (Notice 891 of 2014) (Table 5-1).

Table 5-1: Need and Desirability

Question from the Need and Desirability Guideline	**Response**
Securing ecological sustainable development and use of natural resources	
How will this development (and its separate elements / aspects) on the ecological integrity of the area?	An Ecological Habitat Assessment and Wetland Delineation Assessment will be undertaken and included in the EIA and will assess this in more detail. It is not expected that the proposed development will negatively impact on the ecological integrity of the area as the site is not pristine and has been degraded by historical use. In addition, the wetland

Question from the Need and Desirability Guideline	**Response**
	and associated wetland buffer have been incorporated into the open space area and will not be developed.
How were the following ecological integrity considerations taken into account? • Threatened Ecosystems • Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure, • Critical Biodiversity Areas ("CBAs") and Ecological Support Areas ("ESAs") • Conservation targets, • Environmental Management Framework, • Spatial Development Framework, and • Global and international responsibilities relating to the environment (e.g. RAMSAR sites, Climate Change, etc.	The Scoping Report includes a summary of the receiving environment which includes applicable information on: • Threatened ecosystems; • CBAs and ESAs; • Sensitive features such as wetlands; and • Socio-Economic Information including information on the GSDF. This was used to identify potential sensitivities which required further assessment by a specialist. Based on this, the following specialist studies will be included in the EIA Phase: • Ecological Habitat Assessment; and • Wetland Delineation and Assessment. The findings of these studies will be incorporated into the development layout if necessary.
How will this development disturb or enhance ecosystems and / or result in the loss or protection of biological impacts that could not be avoided altogether, what measures were explored to minimize and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?	An Ecological Habitat Assessment and Wetland Delineation and Assessment will be included in the EIA and will assess this in more detail. The findings of these studies will be incorporated into the development if necessary. Further, mitigation measures suggested by the specialists will be incorporated into the EMPr.
How will this development pollute and/or degrade the biophysical environment? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimize and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?	Significant environmental issues for further consideration and prioritisation during the EIA stage have been discussed in Section 8.1. This focusses the EIA Phase and ensures that potential impacts related to the proposed development are determined through specialist studies where necessary. A detailed impact assessment will be undertaken as part of the EIA Phase.

Question from the Need and Desirability Guideline	**Response**
What waste will be generated by this development? What measures were explored to firstly avoid waste, and where waste could not be avoided altogether, what measures were explored to minimize, reuse and/or recycle the waste? What measures have been explored to safely treat and/or dispose of unavoidable waste?	During construction, construction waste will be produced whilst during operation, domestic waste related to the Riverside View Ext 84 will be produced. The EMPr which will be compiled during the EIA Phase will include a waste management plan that aims to ensure measures to minimize, reuse and/or recycle the waste are incorporated into the development.
How will this development use and/or impact on non-renewable natural resources? What measures were explored to ensure responsible and equitable use of the resources? How have the consequences of the depletion of the non-renewable natural resources been considered? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimize and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?	The proposed development does not involve the mining of non-renewable resources. However, some natural resources will be required during construction. A detailed impact assessment will be undertaken during the EIA Phase and will include an assessment of impacts on resource use.
How will this development use and/or impact on renewable natural resources and the ecosystem of which they are part? Will the use of the resources and/or impact on the ecosystem jeopardize the integrity of the resource and/or system taking into account carrying capacity restrictions, limits of acceptable change, and thresholds? What measures were explored to firstly avoid the use of resources, or if avoidance is not possible, to minimize the use of resources? What measures were taken to ensure responsible and equitable use of the resources? What measures were explored to enhance positive impacts? • Does the proposed development exacerbate the increased dependency on increased use of resources to maintain economic growth or does it reduce resource dependency (i.e. de-	An Ecological Habitat Assessment and Wetland Delineation and Assessment will be undertaken and included in the EIA and will assess this in more detail. It is not expected that the proposed development will negatively impact on the ecological integrity of the area. A detailed assessment of impacts will also be undertaken during the EIA Phase. Energy saving measures will also be incorporated at the detailed design phase to minimise energy requirements.

Question from the Need and Desirability Guideline	Response
materialized growth)? (note: sustainability requires that settlements reduce their ecological footprint by using less material and energy demands and reduce the amount of waste they generate, without compromising their quest to improve their quality of life) • Does the proposed use of natural resources constitute the best use thereof? Is the use justifiable when considering intra- and intergenerational equity, and are there more important priorities for which the resources should be used (i.e. what are the opportunity costs of using these resources this the proposed development alternative?). • Do the proposed location, type and scale of development promote a reduced dependency on resources?	
How were a risk-averse and cautious approach applied in terms of ecological impacts? • What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)? • What is the level of risk associated with the limits of current knowledge? • Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?	A risk-averse and cautious approach has been undertaken. The following has reference: • The specialist studies will identify gaps which will then be noted in both the specialist report and EIA. • The impact assessment which will be undertaken during the EIA Phase will specifically deal with gaps identified by specialists and/or lack of information through the assessment of 'Level of Confidence'. • The EMPr which will be compiled in the EIA Phase will provide numerous mitigation measures to ensure that impacts identified to be a 'low' risk can be further mitigated.
How will the ecological impacts resulting from this development impact on people's environmental right in terms following: • Negative impacts e.g. access to resources, opportunity costs, loss of amenity (e.g. open	Significant environmental issues for further consideration and prioritisation during the EIA stage have been discussed in Section 8.1. This focusses the EIA Phase and ensures that potential impacts related to the proposed development are

Question from the Need and Desirability Guideline	**Response**
space), air and water quality impacts, nuisance (noise, odour, etc.), health impacts, visual impacts, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimize, manage and remedy negative impacts? • Positive impacts: e.g. improved access to resources, improved amenity, improved air or water quality, etc. What measures were taken to enhance positive impacts?	determined through specialist studies where necessary. A detailed impact assessment will be undertaken as part of the EIA Phase and will provide more information on both the negative and positive impacts associated with the development.
Describe the linkages and dependencies between human wellbeing, livelihoods and ecosystem services applicable to the area in question and how the development's ecological impacts will result in socio-economic impacts (e.g. on livelihoods, loss of heritage site, opportunity costs, etc.)?	No loss of livelihoods, heritage or significant opportunity costs are anticipated at this point, however during the EIA Phase, more detailed assessment of impacts will take place.
Based on all of the above, how will this development positively or negatively impact on ecological integrity objectives/targets/considerations of the area?	It is not expected that the development will negatively impact on the ecological integrity objectives of the area however, an Ecological Habitat Assessment and Wetland Delineation Assessment will be undertaken and will be taken into account in the EIA Phase Impact Assessment. It should be noted that the proposed development falls within Zone 1 which is the Urban Development Zone of the Gauteng Provincial Environmental Management Framework (GPEMF). The purpose of this zone is to promote densification and development and thus the proposed development is in line with the GPEMF.
Considering the need to secure ecological integrity and a healthy biophysical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the "best practicable environmental option" in terms of ecological considerations?	Two layout alternatives are being assessed as part of the Scoping and EIA process. These are: • The proposal; and • Alternative 1.

Question from the Need and Desirability Guideline	**Response**
	In addition, based on discussions with the wetland specialist, two alternative placements of the attenuation pond are also being assessed: • The proposal - along the boundary of the wetland with multiple discharge points; • Alternative 1 – along the northern boundary of the site. These alternatives will be assessed as part of the EIA process to determine the best practicable environmental option.
Promoting justifiable economic and social development	
What is the socio-economic context of the area, based on, amongst other considerations, the following considerations? • The IDP (and its sector plans' vision, objectives, strategies, indicators and targets) and any strategic plans, frameworks of policies applicable to the area, • Spatial priorities and desired spatial patterns (e.g. need for integrated of segregated communities, need to upgrade informal settlements, need for densification, etc.). • Spatial characteristics (e.g. existing land uses, planned land uses, cultural landscapes, etc.), and • Municipal Economic Development Strategy ("LED Strategy").	Please see Section 3.8 of the Scoping Report which provides an overview of the socio-economic context of the area and includes information on the existing Gauteng Spatial Development Framework, Regional Spatial Development Framework and the Integrated Development Plan.
Considering the socio-economic context, what will the socio-economic impacts be of the development (and its separate elements/aspects), and specifically also on the socio-economic objectives of the area? • Will the development complement the local socio-economic initiatives (such as local	The proposed Riverside View Ext 84 aims to provide complimentary uses to the existing Steyn City Development. In addition, it will create approximately 150 temporary jobs during construction and the capital investment of approximately R15 million will have a local multiplier effect in the area. Local skills will be

Question from the Need and Desirability Guideline	**Response**
economic development (LED) initiatives), or skills development programs?	encouraged within the EMPr (to be compiled as part of the EIA Phase.
How will this development address the specific physical, psychological, developmental, cultural and social needs and interests of the relevant communities?	The proposed development aims to provide ancillary land uses associated with the larger Steyn City development. As such a zoning rights for the site include: *Place of Instructions, Residential buildings and Offices, including ancillary uses such as restaurants and shops* In all cases, these proposed land uses will complement the existing Steyn City Land Use and provide a more holistic development which will address the needs of the existing and future community. In addition, through the construction of the development, local community members will be employed.
Will the development result in equitable (intra- and inter-generational) impact distribution, in the short- and long-term? Will the impact be socially and economically sustainable in the short- and long-term?	A detailed impact assessment will be undertaken in the EIA Phase and will include an assessment of social and economic impacts.
In terms of location, describe how the placement of the proposed development will: • Result in the creation of residential and employment opportunities in close proximity to or integrated with each other • Reduce the need for transport of people and goods • Result in access to public transport or enable non-motorized and pedestrian transport (e.g. will the development result in densification and the achievement of thresholds in terms public transport), • Compliment other uses in the area • Be in line with the planning for the area,	The location of the proposed development considered a number of aspects including: • Available land; and • Proximity to Steyn City (as the proposed development aims to form part of the existing Steyn City). The following can also be noted: • The proposed development aims to create ancillary land uses associated with the larger Steyn City development. • By creating these ancillary uses, it will reduce the need for transport of people from Steyn City and will create a holistic development.

Question from the Need and Desirability Guideline	**Response**
• for urban related development, make use of underutilized land available with the urban edge • optimize the use of existing resources and infrastructure, • opportunity costs in terms of bulk infrastructure expansions in non-priority areas (e.g. not aligned with the bulk infrastructure planning for the settlement that reflects the spatial reconstruction priorities of the settlement), • discourage "urban sprawl" and contribute to compaction/densification, • contribute to the correction of the historically distorted spatial patterns of settlements and to the optimum use of existing infrastructure in excess of current needs, • encourage environmentally sustainable land development practices and processes, • take into account special locational factors that might favour the specific location (e.g. the location of a strategic mineral resource, access to the port, access to rail, etc.), • the investment in the settlement or area in question will generate the highest socio=economic returns (i.e an area with high economic potential), • impact on the sensitivities of the area, and • in terms of the nature, scale and location of the development promote or act as a catalyst to create a more integrated settlement?	• The proposed development makes use of land adjacent to Steyn City which falls within the urban edge. • The development is therefore in line with the GPEMF as it mostly falls within Zone 1 – Urban Development Zone. • During the EIA Process, a wetland delineation and ecological habitat assessment will be undertaken and the findings will be incorporated into the layout thus ensuring that the development is environmental sustainable. • A Heritage Impact Assessment will be undertaken to ensure the proposed development does not impact on the sense of history, sense of place and heritage of the area and the socio-cultural and cultural-historic characteristics of the site. • The proposed development will create employment during construction and operation. • It also compliments other land uses in the area and will create a more integrated settlement as it provides ancillary land uses to the existing Steyn City development.
How were a risk-averse and cautious approach applied in terms of socio-economic impacts? • What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)?	Other than the Heritage Impact Assessment, no social or economic specialist studies have been triggered and are required. However, a risk-averse and cautious approach has been undertaken. The following has reference:

Question from the Need and Desirability Guideline	**Response**
• What is the level of risk (note: related to inequality, social fabric, livelihoods, vulnerable communities, critical resources, economic vulnerability and sustainability) associated with the limits of current knowledge? • Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?	• The Heritage Impact Assessment will identify gaps which will then be noted in both the specialist report and EIA. • The impact assessment which will be undertaken during the EIA Phase will specifically deal with gaps identified by specialists and/or lack of information through the assessment of 'Level of Confidence'. • The EMPr which will be compiled in the EIA Phase will provide numerous mitigation measures to ensure that impacts identified to be a 'low' risk can be further mitigated.
How will the socio-economic impacts resulting from this development impact on people's environmental right in terms following: • Negative impacts: e.g. health (e.g. HIV-Aids), safety, social ills, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimize, manage and remedy negative impacts? • Positive impacts. What measures were taken to enhance positive impacts?	A detailed impact assessment will be undertaken in the EIA Phase and will include an assessment of social and economic impacts (both positive and negative). It is not expected that there will be negative socio-economic impacts associated with the development. Instead, the CAPEX value of the project is about R15 million and will create numerous multiplier effects in the area. Further, approximately 150 construction-related and 150 operation-related jobs will be created.
Considering the linkages and dependencies between human wellbeing, livelihoods and ecosystem services, describe the linkages and dependencies applicable to the area in question and how the development's socio-economic impacts will result in ecological impacts (e.g. over utilization of natural resources, etc.)?	A detailed impact assessment will be undertaken in the EIA Phase and will include an assessment of social and economic impacts as well as ecological impacts. Based on the type of proposed development, it is not expected that the socio-economic impacts will result in ecological impacts.
What measures were taken to pursue the selection of the "best practicable environmental option" in terms of socio-economic considerations?	Two alternative layouts were assessed, namely: • The proposal; and • Alternative 1.

Question from the Need and Desirability Guideline	Response
	In addition, based on discussions with the wetland specialist, two alternative placements of the attenuation pond are also being assessed: • The proposal - along the boundary of the wetland with multiple discharge points; • Alternative 1 – along the northern boundary of the site. A detailed assessment of alternatives will be undertaken in the EIA Phase once specialist studies are completed and can contribute to the impact assessment. When assessing these alternatives, the following will be assessed: • The findings of the specialist studies; • The results of the impact assessment; and • The need for the project.
What measures were taken to pursue environmental justice so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons (who are the beneficiaries and is the development located appropriately)? Considering the need for social equity and justice, do the alternatives identified, allow the "best practicable environmental option" to be selected, or is there a need for other alternatives to be considered?	A detailed Scoping and EIA process is currently being undertaken. This includes the assessment of alternatives, compilation of a detailed impact assessment and undertaking relevant specialist studies. Further, as noted above, the proposed development aims to complement the existing Steyn City development and thus the beneficiaries of the proposed development are located in close proximity to the development. Based on the preliminary assessment of alternatives undertaken as part of the Scoping phase, it is believed that the alternatives assessed do allow for the best practicable environmental option to be determined and the EAP is of the opinion that no further alternatives need to be assessed.
What measures were taken to pursue equitable access to environmental resources, benefits and services to meet basic human needs and ensure	A number of specialist studies will be undertaken as part of the EIA Phase to ensure that the proposed development is sustainable and does not

Question from the Need and Desirability Guideline	**Response**
human wellbeing and what special measures were taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination?	result any negative impacts to disadvantaged persons.
What measures were taken to ensure that the responsibility for the environmental health and safety consequences of the development has been addressed throughout the development's life cycle?	In identifying the potential impacts associated with the development, the full lifecycle was assessed. A more detailed impact assessment which will incorporate the findings of the specialist studies will also be included in the EIA Report. Further, the full EMPr includes the roles and responsibilities for the development and ensures that the responsibility of the implementation of the EMPr falls to the developer.
What measures were taken to: • ensure the participation of all interested and affected parties, • provide all people with an opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation • ensure participation by vulnerable and disadvantaged persons, • promote community wellbeing and empowerment through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means, • ensure openness and transparency, and access to information in terms of the process, • ensure that the interests, needs and values of all interested and affected parties were taken into account, and that adequate recognition were given to all forms of knowledge, including traditional and ordinary knowledge, and • ensure that the vital role of women and youth in environmental management and	A detailed public participation process is being undertaken as part of the Scoping and EIA process. As part of this, a detailed Interested and Affected Party (I&AP) Database was compiled and included registered I&APs from previous Steyn City projects. The database also includes organs of state that have jurisdiction over the site such as City of Johannesburg, Johannesburg Roads Agency, Department of Water and Sanitation, Johannesburg Water and Gauteng Department of Agriculture and Rural Development (GDARD). In addition, the I&AP database included the affected ward councillor of the area as well applicable residential associations. These I&APs have been notified of the Scoping and EIA process and will be provided with an opportunity to comment on all reports (both the Scoping Report and EIA Report) and provided with an opportunity to comment. They have also been notified of the review of the Scoping Report.

Question from the Need and Desirability Guideline	**Response**
development were recognized and their full participation therein were promoted?	Numerous communication methods (including site notices, adverts, hand delivery of BIDs and emails) are being employed, and it is felt that public participation has been such to ensure participation by all potentially interested or affected people.
Considering the interests, needs and values of all the interested and affected parties, describe how the development will allow for opportunities for all the segments of the community (e.g. a mixture of low- middle-, and high-income housing opportunities) that is consistent with the priority needs of the local area (or that is proportional to the needs of an area)	The proposed development aims to provide ancillary land uses associated with the larger Steyn City development. In all cases, these proposed land uses will complement the existing Steyn City Land Use and provide a more holistic development which will address the needs of the existing and future community. In addition, through the construction of the development, local community members will be employed.
What measures have been taken to ensure that current and / or future workers will be informed of work that potentially might be harmful to human health or the or the environment or of dangers associated with the work, and what measures have been taken to ensure that the right of workers to refuse such work will be respected and protected?	A site specific EMPr will be compiled in the EIA Phase and will include an Environmental Awareness Plan. As part of this, workers will be informed of their rights to refuse work that might be harmful to human health or the environment.
Describe how the development will impact on job creation in terms of, amongst other aspects: • the number of temporary versus permanent jobs that will be created, • whether the labour available in the area will be able to take up the job opportunities (i.e. do the required skills match the skills available in the area), • the distance from where labourers will have to travel, • the location of jobs opportunities versus the location of impacts (i.e. equitable distribution of costs and benefits); and	The following can be noted in regards to this: • The EMPr which will be compiled will note that local employment should be encouraged to promote skills transfer and development. This will enhance the general area and provide job opportunities to potential job seekers and manage it in the best suitable way. • An assessment of the social environment of the area suggests that there is labour available in the area. • The proposed development occurs in close proximity to numerous residential developments and informal settlements and

Question from the Need and Desirability Guideline	**Response**
• the opportunity costs in terms of job creation (e.g. a mine might create 100 jobs, but impact on 1000 agricultural jobs, etc.)	thus, the distance labourers will have to commute is not expected to be significant. • The proposed development will not result in any losses of any jobs and job-related opportunity costs are not expected.
What measures were taken to ensure: • That there were intergovernmental coordination and harmonization of policies, legislation and actions relating to the environment, and • That actual or potential conflicts of interest between organs of state were resolved through conflict resolution procedures?	National Legislation i.e. NEMA, NWA, NHRA, NEM:BA were consulted in the preparation of this Scoping Report. Provincial guidelines also formed part of the literature review. Spatial development tools also aided the EAP to assess and provide information pertaining to the proposed development. Any comments received from I&APs or organs of state are included in the comments and response register.
Are the mitigation measures proposed realistic and what long-term environmental legacy and managed burden will be left?	The site specific EMPr which will be compiled will include realistic and achievable mitigation measures which aim to reduce any negative impacts as well as to enhance any positive benefits associated with the project.
What measures were taken to ensure that the costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimizing further pollution, environmental damage or adverse health effects will be paid for by those responsible for harming the environment?	The site specific EMPr which will be compiled will include detailed roles and responsibilities. In addition, a penalty system for contractors will be included.
Considering the need to secure ecological integrity and a healthy bio-physical environment, describe how the alternatives identified (in terms of all the different impacts being proposed), resulted in the selection of the best practicable environmental option in terms of socio-economic considerations?	Two alternative layouts were assessed, namely: • The proposal; and • Alternative 1. In addition, based on discussions with the wetland specialist, two alternative placements of the attenuation pond are also being assessed:

Question from the Need and Desirability Guideline	Response
	• The proposal - along the boundary of the wetland with multiple discharge points; • Alternative 1 – along the northern boundary of the site. A detailed assessment of alternatives will be undertaken in the EIA Phase once specialist studies are completed and can contribute to the impact assessment. When assessing these alternatives, the following will be assessed: • The findings of the specialist studies; • The results of the impact assessment; and • The need for the project. This impact assessment will ensure that the Best practicable environmental option is selected.

6 PROCESS FOLLOWED TO REACH THE PREFERRED ACTIVITY, SITE AND LOCATION WITHIN THE SITE

6.1 Nature of the Activities

The nature of the activities to be undertaken is to permanently transform the property to a Special land use. Associated internal roads and services will also be put in place as part of the development.

6.2 Alternatives

According to the 2014 EIA Regulations, alternatives are defined as:

"Different means of meeting the general purpose and requirements of the activity, which may include alternatives to the-

(a) property on which or location where the activity is proposed to be undertaken;
(b) type of activity to be undertaken;
(c) design or layout of the activity;
(d) technology to be used in the activity; or
(e) operational aspects of the activity;
and includes the option of not implementing the activity"

In line with the Regulations, a number of alternatives have been assessed for the proposed development. These include:

- Layout alternatives;
- Attenuation alternatives; and
- The No -Go Option.

More information on each of these alternatives is provided below.

6.2.1 Layout Alternatives

Two layouts have been identified as feasible in regard to the development of Riverside View Extension 84. These are:

- The proposal; and
- Alternative.

6.2.1.1 Proposal

The proposal involves the development of three separate erven as follows:

- Erf 1 and 2:

- Special: Special for Place of Instructions, Residential buildings and Offices, including ancillary uses such as restaurants and shops.

- Erf 3:
  - Special for Private Open Space

As part of the proposal, access to the site will be obtained from three points (two off View Road and one from the Steyn City development to the south). Connections to existing services will also be to a single point on the Erf 1.

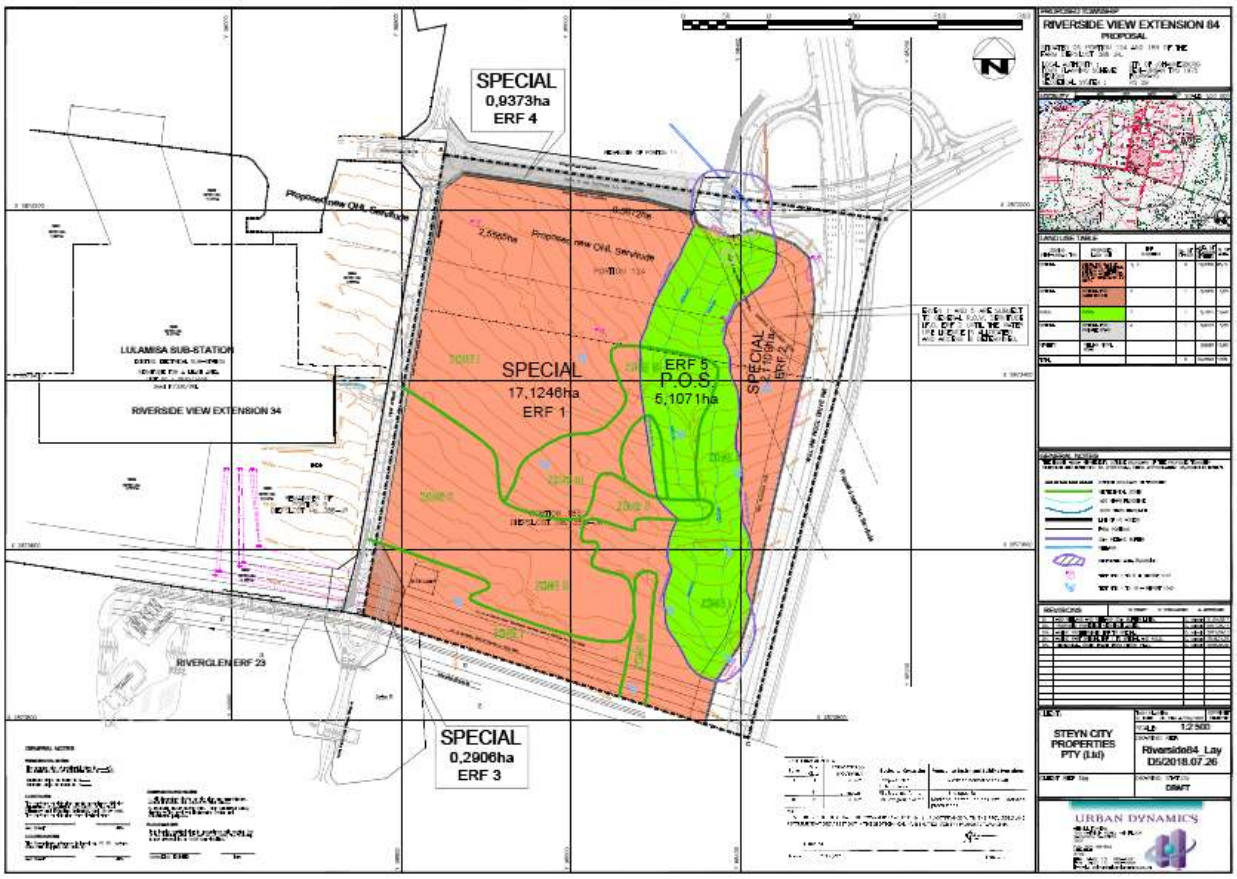


Figure 6-1: Proposal

6.2.1.2 Alternative

The alternative involves the development of seven separate erven as follows:

- Erf 1 – 4:
  - Special: Special for Place of Instructions, Residential buildings and Offices, including ancillary uses such as restaurants and shops
- Erf 5:
  - Special for Access Control
- Erf 6:
  - Special for Private Roads

- Erf 7:
  - Special for Private Open Space

The extent of Erf 1, 2, 3 and 4 will be smaller (between 2.1 and 6.7 hectares). Additional access points off View Road will be required. Further, multiple connections to the existing bulk services will be required.

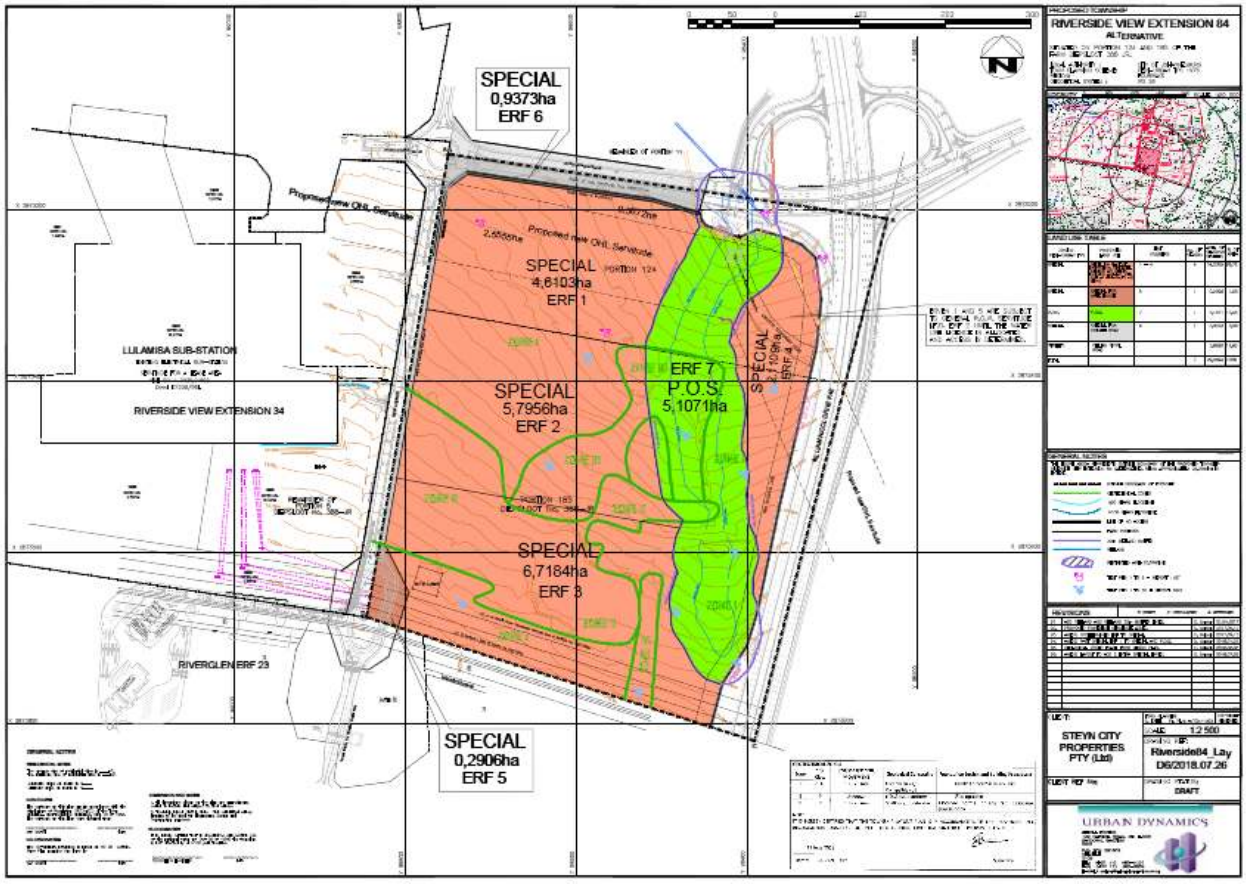


Figure 6-2: Alternative Layout

6.2.2 Attenuation Alternatives

In line with the requirements of the Johannesburg Roads Agency (JRA), stormwater attenuation will be provided to reduce the increased stormwater run-off resulting from the development to pre-development volumes through the incorporation of Stormwater attenuation ponds in the stormwater system.

An attenuation dam of approximately 6200m^3, with a target depth of 1.5m an area of approximately 4150m^2 will be put in place.

Two options exist for the location of this attenuation pond:

- Proposal – Attenuation Pond along Wetland; and
- Alternative – Attenuation Pond to the north of the site.

6.2.2.1 Proposal – Attenuation Pond along Wetland

Preliminary discussions with the wetland specialist indicated that a long, thin attenuation pond which runs alongside the existing wetland and has multiple release points would be most environmentally sound and would mimic the wetland conditions existing on site.

In line with this, the engineers have designed a proposed attenuation pond alongside the wetland (Figure 6-3). Overall the same volume of attenuation and same area of the site will be utilised for attenuation.

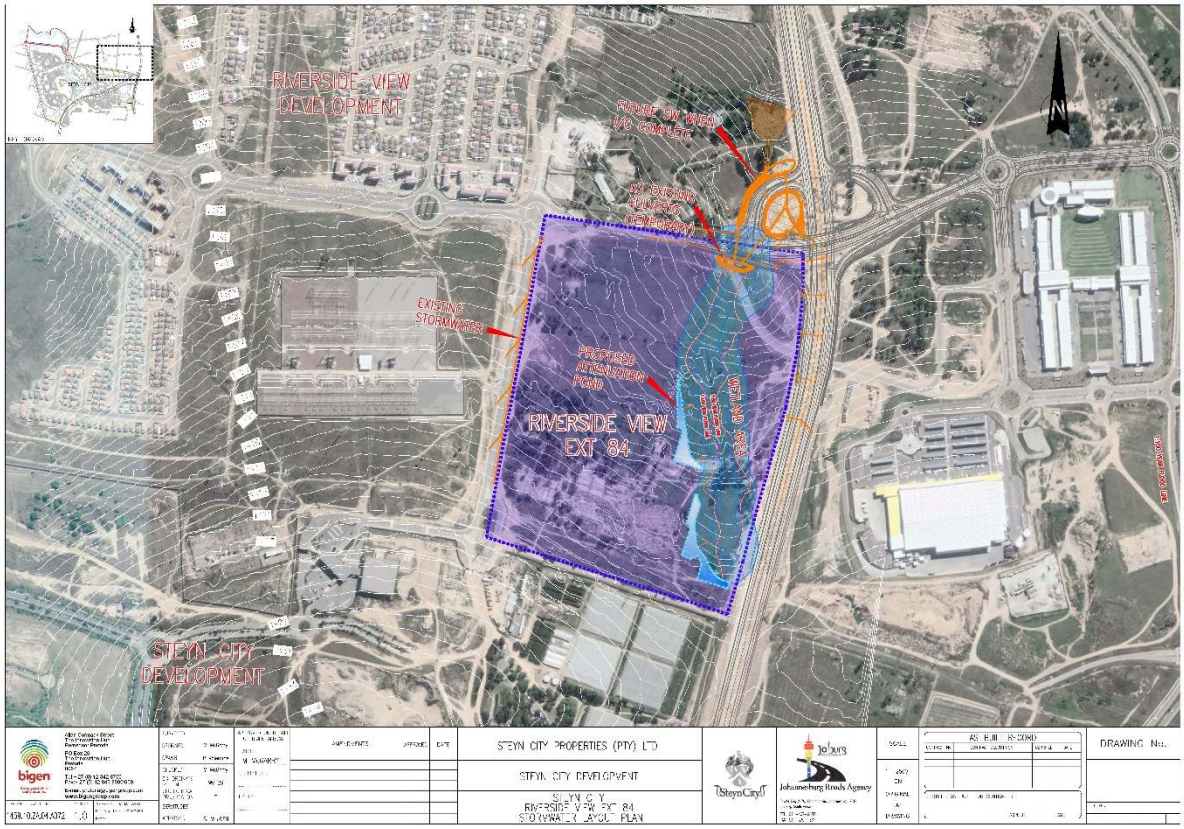


Figure 6-3: Proposal – Attenuation Pond along Wetland

6.2.2.2 Alternative – Attenuation Pond to the north of the site

As part of the alternative, Stormwater would be attenuated to the north of the site. Only one release point would be provided (Figure 6-4.).

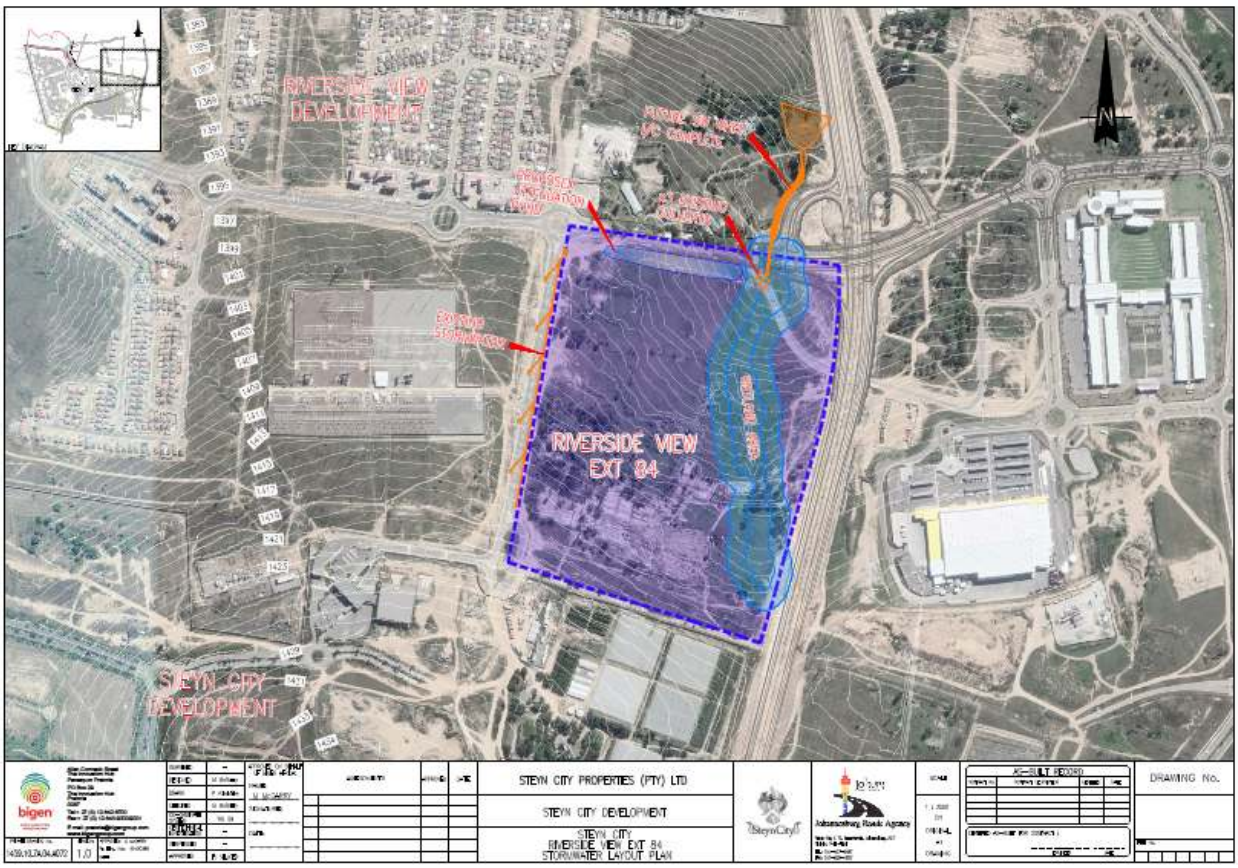


Figure 6-4: Alternative - Attenuation Pond to the north of the site

6.2.3 No-Go Alternative

As standard practice and to satisfy regulatory requirements, the option of not proceeding with the project is included in the evaluation of the alternatives.

The main implication of the No Go Option is that should the development not proceed, there will be a loss of the economic benefits of the investment of approximately R15 million in the area. There will also be a loss of the 150 construction related employment opportunities and 150 operation related employment opportunities. Further, the site will remain vacant and will not provide the needed ancillary uses required by Steyn City.

6.3 Environmental Attributes and Sensitivity Map

A preliminary assessment was undertaken using the C-Plan and rivers, wetlands and vegetation data sources and is indicated in Figure 6-5. These environmental attributes have been considered in the scoping phase to ascertain areas where further investigation is required prior to confirming a final site layout:

- Rivers and Wetlands: a watercourse and wetland which traverses part of the site;
- Ecological sensitive areas including potential sensitive fauna and flora;
- Heritage and Cultural aspects; and
- Vegetation Map.

It should be noted than an updated sensitivity map will be compiled once the various specialist studies have been completed in the EIA Phase.

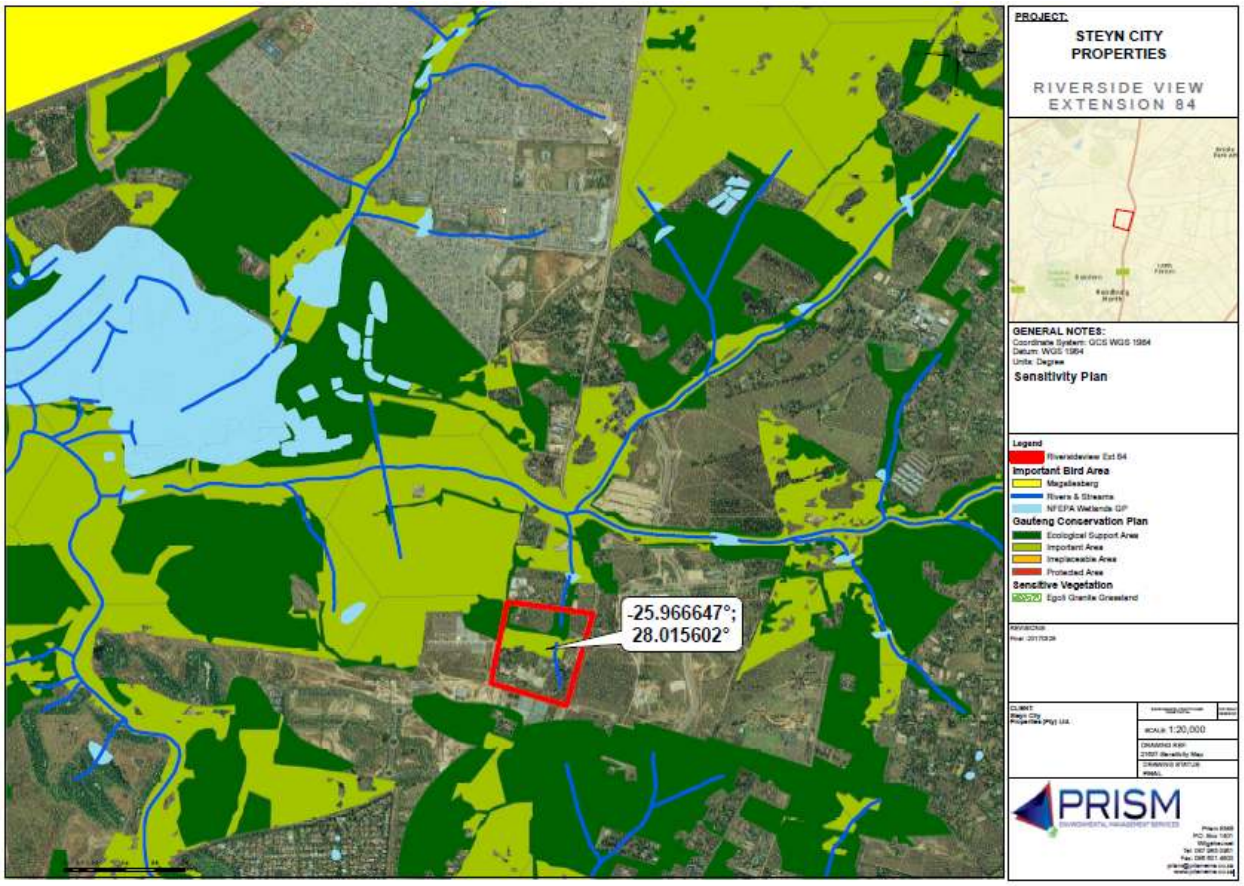


Figure 6-5: Preliminary Sensitivity Map

7 PUBLIC PARTICIPATION PROCESS

7.1 Objective and Purpose of Public Participation

The purpose of the public participation process is to provide information regarding the proposed project to any potentially interested and/or affected person for use and consideration throughout the environmental assessment process. The information usually involves a combination of the technical project scope, environmental attributes and sensitives, cultural and heritage aspects as well as socio-economic factors that may be potentially beneficial or problematic to various role players.

The dissemination of such information is intended to assist the public with understanding how the proposed project and/or development may impact them and the environment in either a positive and/or negative manner, and especially where impacts are determined or perceived as significantly high, how such impacts may be influenced by project changes (layout or design aspects) or management measures may be implemented to reduce or minimise the significance of any identified impacts.

As a registered I&AP, members of the public of any affiliation are awarded the opportunity to remain informed of the steps, actions and decisions made within the environmental impact assessment process and are able to actively participate by reviewing all information provided by the EAP to the I&AP's in a reasonable period in order to provide comments, objections, suggestions or any other information that will assist the project to develop in a favourable for all manner or contribute to the competent authority's knowledge in order to make an informed decision on the application for environmental authorisation.

7.2 Notification Phase of Public Participation[2]

The public participation process commenced with identifying and notifying all potential Interested and Affected Parties (I&AP's). Background information documents and comment forms were provided as a basic source of information or notices were viewed and potential interested and/or affected members of the public were invited to register as I&AP's for the remainder of the Scoping and Environmental Impact Reporting phases of the process. All public participation was conducted in English as it is the first language of 50% of the surrounding communities according to Stats South Africa.

7.2.1 Identified I&AP's

The following potential I&AP's were identified:

- Gauteng Department of Agriculture and Rural Development (GDARD);
- Department of Human Settlements, Water and Sanitation (DHSWS);
- CoJ: Department of Environmental Planning and Management;
- Johannesburg Roads Agency;
- Eskom;

[2] *Please note that as the initial notification took place in 2018, re-notification was undertaken as part of the review of the Scoping Report and is detailed in Section 7.3.*

- Adjacent landowners;
- Local businesses in the area; and the
- The relevant ward councillor.

Refer to Appendix 10.4.1. for a detailed list of the interested and/or affected members of the public that were notified and/or subsequently registered as an I&AP.

7.2.2 Newspaper Notice

A notice was published in the Star Newspaper on **19 October 2018**.

Refer to Appendix 10.4.2.1. for proof of the newspaper notices.

7.2.3 Site Notice

Two site notices were placed on the **19 October 2018** around the proposed development site at the following locations:

- On the corner of View Road and Porcupine Park Avenue (to the north of the site); and
- Along Porcupine Park Avenue (at William Nicol Drive, to the east of the site).

Refer to Appendix 10.4.2.2 for proof of the notices placed on site.

7.2.4 Written Notifications

The surrounding landowners and/or occupiers and organs of state (listed in Appendix 10.4.1) were notified in writing via email on **22 October 2018** and were issued with a copy of the Background Information Document (BID) to provide further information on the project. A copy of the BID is provided in Appendix 10.4.2.3.

Refer to Appendix 10.4.2.4. for proof of the Written Notifications undertaken as part of the initial notification.

7.2.5 Comments Raised by I&AP's during the Initial Notification Period

The comments received during the initial notification period are summarised in the Comments and Responses Report attached in Appendix 10.4.3. Most comments received were requests to be registered. In addition, Eskom issued comments noting their powerlines would be affected. They did not raise any objections but instead provided a number of terms that must be adhered to. These will be incorporated into the EMPr when compiled.

7.3 Scoping Phase Comment Period

The Scoping Report is available for comment to all registered interested and affected parties and relevant organs of state for a period of 30 days from **7 February 2020 to 9 March 2020**.

Due to the fact the review of the Scoping Report will take place more than a year after the initial notification, re-notification of all I&APs has been undertaken to ensure a fair public participation process. The details of the re-notification are as follows:

7.3.1 Newspaper Notice

A notice was published in the Star Newspaper on **7 February 2020**. The advert provided information on the proposed development as well as the review of the Scoping Report.

Refer to Appendix 10.4.3.1. for a copy of the newspaper notice. Proof of notification will be included in the Scoping Report which will be finalised and submitted to GDARD after public review.

7.3.2 Site Notice

As before, two site notices were placed on the **6 February 2020** around the proposed development site at the following locations:

- On the corner of View Road and Porcupine Park Avenue (to the north of the site); and
- Along Porcupine Park Avenue (at William Nicol Drive, to the east of the site).

Refer to Appendix 10.4.3.2 for a copy of notice placed on site. Proof of notification will be included in the Scoping Report which will be finalised and submitted to GDARD after public review.

7.3.3 Written Notifications

The surrounding landowners and/or occupiers and organs of state (listed in Appendix 10.4.1) were notified in writing via email on **7 February 2020** and were issued with a copy of the Background Information Document (BID) to provide further information on the project. The BID that was initially distributed was updated to include the details of the public review of the Scoping Report. Please refer to Appendix 10.4.3.3 for copies of the updated BID.

All registered I&AP's were notified via email and provided with a downloadable link to the DSR. Proof of notification will be included in the Scoping Report which will be finalised and submitted to GDARD after public review.

All comments received during this period will be considered and incorporated into the finalised Scoping Report and documented in the Comments and Response Report.

7.4 Impact Assessment Phase Comment Period

Upon acceptance of the scoping report by the GDARD, the applicant/EAP will proceed and continue with the tasks contained in the plan of study (Section 8 of this report).

Subsequently an impact assessment report will be compiled and made available to all registered interested and affected parties and relevant organs of state for a period of 30 days.

Registered I&APs will be notified of the Department's decision and notified of the review the Draft EIA Report at the same time.

7.5 Final EIA Report and GDARD Decision

All comments received during the comment period discussed above will be considered and incorporated into the Final EIA Report and documented in the Comments and Response Report.

The Final EIA Report will then be submitted to GDARD for decision.

7.6 Outcome of the Decision

Registered I&AP's will be notified in writing of the outcome of the Department's decision within 12 days of the decision. The notification will include details of the process and timeframes in which to appeal the outcome of the decision made by the competent authority, GDARD.

8 PLAN OF STUDY FOR THE EIA PHASE

The requirements that form part of the plan of study for undertaking the EIA process includes the following:

- A description of the alternatives to be considered and assessed within the preferred site (Section 6.2), including the option of not proceeding with the activity (Section 6.2.3);
- A description of the aspects to be assessed as part of the environmental impact assessment process (Table 8-1);
- Aspects to be assessed by specialists (Table 8-1 and Section 8.2).
- A description of the proposed method of assessing the environmental aspects, including a description of the proposed method of assessing the environmental aspects including aspects to be assessed by specialists (Section 8.3);
- A description of the proposed method of assessing duration and significance (Section 8.3); an indication of the stages at which the competent authority will be consulted (Section 7);
- Particulars of the public participation process that will be conducted during the environmental impact assessment process (Table 8-10:; Section 7.3 and Section 7.4;
- A description of the tasks that will be undertaken as part of the environmental impact assessment process (Section 8.5); and
- Identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored (Section 8.4).

The sections that follow aim to determine potential environmental issues that will be further considered during the EIA Phase. The issues raised by I&APs during Scoping Phase will also guide the identification of significant issues.

8.1 Predicting Significant Environmental Issues

In line with the requirements of the Scoping Process in terms of the EIA Regulations, 2014 (as amended) this section aims to identify potentially significant environmental issues for further consideration and prioritisation during the EIA stage. This focusses the EIA Phase and ensures that potential impacts related to the proposed development are determined through specialist studies where necessary.

Potential impacts associated with the proposed development were determined by assessing the following:

- Project-related components and infrastructure (see Section 4.3);
- Activities associated with the project life-cycle (i.e. pre-construction, construction, operation and decommissioning) (see Section 4.4);
- Proposed alternatives (see Section 6.2);
- Nature and profile of the receiving environment and potential sensitive environmental features and attributes (see Section 3), which included a desktop evaluation (via literature review, GIS, topographical maps and aerial photography) and site investigations;

- Issues raised by I&APs; and
- Legal and policy context (see Section 2).

8.1.1 Summary of Environmental Issues

Pertinent environmental issues linked to the assessment of the receiving environment are discussed in Table 8-1 below. Information on how the impact will be assessed during the EIA phase and/or mitigated is also provided.

Table 8-1: Potential issues to be assessed during the EIA Phase

Environmental Aspect	Potential Issues / Impacts - Construction	Potential Issues / Impacts - Operation	Studies Required
Local Climate	• No impacts are envisioned.	• No impacts are envisioned.	• N/A
Topography	• Minor changes to topography • Possible erosion	• No impacts are envisioned.	• Stormwater management plan
Geology and Soils	• Erosion of exposed soil • Erosion of stockpiled material (stone, sand and gravel) • Contamination to soil during the mixing of cement • Poor stormwater management during construction.	• Poor stormwater management resulting in erosion.	• Geotechnical Study
Land Use	• Change in land use will required.	• Change in land use will required.	• Town planning process
Agricultural Potential	• No impacts are envisioned as the site is not used for agriculture and does not have a high agricultural potential.	• No impacts are envisioned as the site is not used for agriculture and does not have a high agricultural potential.	• N/A
Existing and Available Services	• Potential disturbance to existing infrastructure during construction (in	• Services required for the proposed development	• Outline Scheme Report • Requirements of Eskom to be included in the EMPr

Environmental Aspect	Potential Issues / Impacts - Construction	Potential Issues / Impacts - Operation	Studies Required
	particular the Eskom Line)		
Roads	• Increased construction related traffic • Decreased visibility along roads due to poor dust management	• Increase in traffic due to use of the area.	• Traffic Impact Assessment
Noise	• Increased noise pollution due to construction activities,	• Increased noise due to use of the area	• Detailed EMPr
Socio-Economic Environment	• Increased employment opportunities (positive) • Indirect injection of cash in the community due to investment (positive) • Increased economic opportunities in the area (positive) • Potential issues regarding security in the area due to construction workers in the area	• Increased employment opportunities (positive) • Increased economic opportunities in the area (positive) • Complimenting land uses to the existing Steyn City (positive)	• N/A
Biodiversity	• Impacts to sensitive features which provide habitat for a number of species • Disturbance of natural ecosystems, making them vulnerable to invasion of alien species • Negative impact due to dust	• Disturbance of birds and fauna in the area	• Ecological Impact Assessment

Environmental Aspect	Potential Issues / Impacts - Construction	Potential Issues / Impacts - Operation	Studies Required
Surface Water	• Destruction of wetland habitat during construction • Disturbance of natural ecosystems, making them vulnerable to invasion of alien species • Increased stormwater resulting in erosion of bed and banks of wetland habitat • Decreased water quality resulting in contamination by construction vehicles • Increased siltation of wetlands as a result of poor soil management	• Increased and poor management of stormwater	• Wetland Delineation Assessment • WULA required • Stormwater management plan
Archaeology and Cultural Heritage	• Potential impacts to heritage resources	• N/A	• Heritage Impact Assessment

8.1.2 Summary of Impacts Identified by IAPs

No concerns have been raised by I&APs to date. Eskom has noted that one of their powerlines will be affected but did not raise any objections. Instead they included a list of terms that must be adhered to. These will be included in the EMPr.

8.2 Specialist Studies

According to Münster (2005), a 'trigger' is "a particular characteristic of either the receiving environment or the proposed project which indicates that there is likely to be an issue and/or potentially significant impact associated with that proposed development that may require specialist input".

Further, the EIA Regulations, 2014 (as amended) define a specialist as: "*A person that is generally recognised within the scientific community as having the capability of undertaking, in conformance with generally recognised scientific principles, specialist studies or preparing specialist reports, including due diligence studies and socio-economic studi*es."

The specialist studies 'triggered' by the findings of the Scoping process include the following:

- Ecological habitat Assessment;
- Wetland Delineation and Assessment; and
- Phase 1 Heritage Impact Assessment.

The *Guideline for determining the scope of specialist involvement in EIA processes* (Münster, 2005) was used in compiling the general Terms of Reference for the specialist studies together with the *Guideline for involving biodiversity specialists in EIA processes* (Brownlie, 2005) and the *GDARD Requirements for Biodiversity Specialists.* In line with these guidelines, specialists will be required to do the following:

- Address all triggers for the specialist studies identified by the Scoping Report.
- Address issues raised by IAPs, as contained in the Comments and Response Report;
- Meet the requirements of the relevant environmental authorities.
- Identify and assess all potentially significant impacts (direct, indirect and cumulative) and suggest suitable mitigation measures.
- Assess alternatives (including the No-Go option) and identify the Best Practicable Environmental Option (BPEO) for the proposed development.
- All specialist reports must adhere to Appendix 6 of the 2014 EIA Regulations.

In addition to the above-mentioned environmental specialist studies, the following technical studies will also be undertaken and will inform the EIA:

- Outline Scheme Report;
- Traffic Impact Assessment; and
- Geotechnical Assessment.

Table 8-2 provides an overview of the environmental aspects that will be assessed by specialists.

Table 8-2: Summary of environmental aspects to be assessed in the EIA.

Environmental Aspects	To be assessed by Specialist	Specialist Study
Geology and Soils	Yes	Geotechnical Study
Existing and Available Services	Yes	Outline Scheme Report
Roads	Yes	Traffic Impact Assessment
Biodiversity	Yes	Ecological Impact Assessment
Surface Water	Yes	Wetland Delineation Assessment
Heritage and Culture	Yes	Heritage Impact Assessment

8.3 Impact Assessment Methodology

The standard methodology used in the environmental impact assessment to determine the significance rating of the potential impacts are outlined in this section.

The **significance** of an impact is defined as the combination of the **consequence** of the impact occurring and the **probability** that the impact will occur. The nature and type of impact may be direct or indirect and may also be positive or negative, refer to Table 8-3: below for the specific definitions.

Table 8-3: Nature and type of impact.

	Nature and Type of Impact:		
IMPACT	**Direct**	Impacts that are caused directly by the activity and generally occur at the same time and place as the activity	✓/✖
	Indirect	Indirect or induced changes that may occur as a result of the activity. These include all impacts that do not manifest immediately when the activity is undertaken or which occur at a different place as a result of the activity	✓/✖
	Cumulative	Those impacts associated with the activity which add to, or interact synergistically with existing impacts of past or existing activities, and include direct or indirect impacts which accumulate over time and space	✓/✖
	Positive	Impacts affect the environment in such a way that natural, cultural and / or social functions and processes will benefit significantly, and includes neutral impacts (those that are not considered to be negative	✓
	Negative	Impacts affect the environment in such a way that natural, cultural and/or social functions and processes will be comprised	✖

Table 8-4: presents the defined criteria used to determine the **consequence** of the impact occurring which incorporates the extent, duration and intensity (severity) of the impact.

Table 8-4: Consequence of the Impact occurring.

CONSEQUENCE		
	Extent of Impact:	
	Site	Impact is limited to the site and immediate surroundings, within the study site boundary or property (immobile impacts)
	Neighbouring	Impact extends across the site boundary to adjacent properties (mobile impacts)
	Local	Impact occurs within a 5km radius of the site
	Regional	Impact occurs within a provincial boundary
	National	Impact occurs across one or more provincial boundaries
	Duration of Impact:	
	Incidental	The impact will cease almost immediately (within weeks) if the activity is stopped, or may occur during isolated or sporadic incidences
	Short-term	The impact is limited to the construction phase, or the impact will cease within 1 - 2 years if the activity is stopped
	Medium-term	The impact will cease within 5 years if the activity is stopped
	Long-term	The impact will cease after the operational life of the activity, either by 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
	Intensity or Severity of Impact:	
	Low	Impacts affect the environment in such a way that natural, cultural and/or social functions and processes are not affected
	Low-Medium	Impacts affect the environment in such a way that natural, cultural and/or social functions and processes are modified insignificantly
	Medium	Impacts affect the environment in such a way that natural, cultural and/or social functions and processes are altered
	Medium-High	Impacts affect the environment in such a way that natural, cultural and / or social functions and processes are severely altered
	High	Impacts affect the environment in such a way that natural, cultural and / or social functions and processes will permanently cease

The probability of the impact occurring is the likelihood of the impacts actually occurring, and is determined based on the classification provided in Table 8-5.

Table 8-5: Probability and confidence of impact prediction

PROBABILITY		
	Probability of Potential Impact Occurrence:	
	Improbable	The possibility of the impact materialising is very low either because of design or historic experience
	Possible	The possibility of the impact materialising is low either because of design or historic experience
	Likely	There is a possibility that the impact will occur
	Highly Likely	There is a distinct possibility that the impact will occur
	Definite	The impact will occur regardless of any prevention measures

The **significance** of the impact is determined by considering the consequence and probability without taking into account any mitigation or management measures and is then ranked according to the ratings listed in Table 8-6:. The level of confidence associated with the impact prediction is also considered as low, medium or high (Table 8-7:).

Table 8-6: Significance rating of the impact.

	Significance Ratings:	
SIGNIFICANCE	**Low**	Neither environmental nor social and cultural receptors will be adversely affected by the impact. Management measures are usually not provided for low impacts
	Low-Medium	Management measures are usually encouraged to ensure that the impacts remain of Low-Medium significance. Management measures may be proposed to ensure that the significance ranking remains low-medium
	Medium	Natural, cultural and/or social functions and processes are altered by the activities, and management measures must be provided to reduce the significance rating
	Medium-High	Natural, cultural and/or social functions and processes are altered significantly by the activities, although management measures may still be feasible
	High	Natural, cultural, and/or social functions and processes are adversely affected by the activities. The precautionary approach will be adopted for all high significant impacts and all possible measures must be taken to reduce the impact

Table 8-7: Level of confidence of the impact prediction

	Level of Confidence in the Impact Prediction:	
CONFIDENCE	**Low**	Less than 40% sure of impact prediction due to gaps in specialist knowledge and/or availability of information
	Medium	Between 40 and 70% sure of impact prediction due to limited specialist knowledge and/or availability of information
	High	Greater than 70% sure of impact prediction due to outcome of specialist knowledge and/or availability of information

Once significance rating has been determined for each impact, management and mitigation measures must be determined for all impacts that have a significance ranking of Medium and higher in order to attempt to reduce the level of significance that the impact may reflect.

The EIA Regulations, 2014 specifically require a description is provided of the degree to which these impacts:

- can be reversed;
- may cause irreplaceable loss of resources; and
- can be avoided, managed or mitigated.

Based on the proposed mitigation measures the EAP will determined a mitigation efficiency (Table 8-8:) whereby the initial significance is re-evaluated and ranked again to effect a significance that incorporates the mitigation based on its effectiveness. The overall significance is then re-ranked and a final significance rating is determined.

Table 8-8: Mitigation efficiency

MITIGATION EFFICIENCY	Mitigation Efficiency	
	None	Not applicable
	Very Low	Where the significance rating stays the same, but where mitigation will reduce the intensity of the impact. Positive impacts will remain the same
	Low	Where the significance rating reduces by one level, after mitigation
	Medium	Where the significance rating reduces by two levels, after mitigation
	High	Where the significance rating reduces by three levels, after mitigation
	Very High	Where the significance rating reduces by more than three levels, after mitigation

The reversibility is directly proportional the "Loss of Resource" where no loss of resource is experienced, the impact is completely reversible; where a substantial "Loss of resource" is experienced there is a medium degree of reversibility; and an irreversible impact relates to a complete loss of resources, i.e. irreplaceable (Table 8-9:).

Table 8-9: Degree of reversibility and loss of resources

DEGREE REVERSABILITY & LOSS OF RESOURCES	Loss of Resources:	
	No Loss	No loss of social, cultural and/or ecological resource(s) are experienced. Positive impacts will not experience resource loss
	Partial	The activity results in an insignificant or partial loss of social, cultural and/or ecological resource(s)
	Substantial	The activity results in a significant loss of social, cultural and/or ecological resource(s)
	Irreplaceable	The activity results in the complete and irreplaceable social, cultural and/or ecological loss of resource(s)
	Reversibility:	
	Irreversible	Impacts on natural, cultural and/or social functions and processes are irreversible to the pre-impacted state in such a way that the application of resources will not cause any degree of reversibility
	Medium Degree	Impacts on natural, cultural and/or social functions and processes are partially reversible to the pre-impacted state if less than 50% resources are applied
	High Degree	Impacts on natural, cultural and/or social functions and processes are partially reversible to the pre-impacted state if more than 50% resources are applied
	Reversible	Impacts on natural, cultural and/or social functions and processes are fully reversible to the pre-impacted state if adequate resources are applied

8.3.1 Cumulative Impacts

It is important to assess the natural environment using a systems approach that will consider the cumulative impact of various actions. Cumulative impact refers to the impact on the environment, which results from the incremental impact of the actions when added to other past, present and reasonably foreseeable future actions regardless of what agencies or persons undertake such actions. Cumulative impacts can result from individually minor, but collectively significant actions or activities taking place over a period of time.

Cumulative effects can take place frequently and over a period of time that the effects cannot be assimilated by the environment.

8.4 Mitigation

According to the EIA Regulations, 2014, "mitigation" means to "*anticipate and prevent negative impacts and risks, then to minimise them, rehabilitate or repair impacts to the extent feasible*". Based on this definition, it possible to see that a mitigation hierarchy exists.

At the bottom of this hierarchy is the most preferred option which includes **prevention (1).** These mitigation measures aim to avoid impacts completely. Some mitigation measures suggested for the proposed Water Park are at this level (for example, designing the Water Park around the existing ESA and watercourses).

The second level of mitigation is **reduction (2)** which involves mitigation measures that minimise impacts. Most of the mitigation measures suggested for the proposed Water Park fall into this level.

Mitigation measures for the proposed Water Park also include **remediation measures (3)** for environmental impacts. These measures focus on remediating or rehabilitating areas after they have been impacted.

Compensation (4) involves compensating the loss of an entire feature. In the case for the environment, this usually means consideration of an off-set associated with rehabilitation and mitigation. No offsets or compensation measures are included in the mitigation measures for the proposed development.

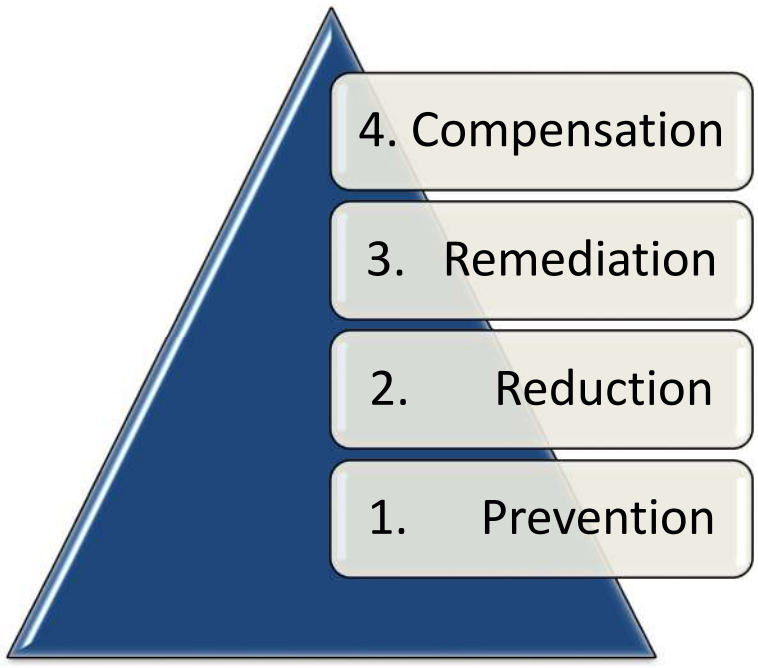


Figure 8-1: Mitigation Hierarchy

An EMPr will be developed based on the findings of the impact assessment of the EIA and in line with the requirements of Appendix 4 of GN 982 of 4 December 2014. The EMPr represents a detailed plan of action and includes site-specific mitigation measures for all medium to high (significant) impacts. The mitigation and management measures will include a combination of the following:

- Physical environmental management structures.
- Monitoring and compliance of pollution and regulatory requirements.

All liability for the implementation of the EMPr (as well as the EIA findings and environmental authorisation) lies with the project applicant which in this case is the **Steyn City Properties (Pty) Ltd.**

8.5 Environmental Impact Assessment Phase

The next steps in the EIA phase which will be undertaken upon completion of the scoping phase (i.e. after the submission and acceptance of this Scoping Report by the GDARD). During the EIA phase, specialist studies will be conducted to inform the impact assessment. Concerns raised by I&AP's pertaining to the proposed development and their potential impacts on the physical, biological aspects of the proposed site will also be assessed at an appropriate level of detail.

The findings, recommendations and statements compiled by the specialists will be integrated with the other environmental aspects and compiled into an EIA Report, and provided to the relevant organs of state and registered I&AP's for review and comment for a minimum period of 30 days. This is planned for the November/December 2017 period, refer to Table 8-10 below for an indication of key dates. All comments received from any authority, I&AP and specialist will be considered and incorporated in the EIA Report for final submission to GDARD for an evaluation and assessment in order to provide a decision on whether to grant or refuse the environmental authorisation.

Table 8-10: Proposed timeframes for the EIA process.

Responsible Role Player	Milestone Tasks	Required Time Period	Proposed Timeframes	Status
Application Phase				
PPP	Written, Newspaper, Site Notices & BID's	30 days	19 October 2018	✓
EAP	Submit Application for EA	N/A	28 January 2020	✓
GDARD	Accept/Acknowledge Application for EA	10 days	+/- 10 February 2020	**In progress**
Scoping Phase				
EAP	Compile SR	N/A	2018/2019	✓
PPP	I&AP Comment Period on SR	30 days	29 January 2020 – 2 March 2020	**In progress**
EAP	Review / Incorporate Comments	2 days	3 March 2020 – 6 March 2020 -	✗
GDARD	Review SR	43 days	7 March 2020 – 19 April 2020	✗
Impact Assessment Phase				

Specialists	Ecology, Aquatic, Wetland, HIA, Noise	N/A	During appropriate season	**In progress**
EAP	Compile EIA Report	N/A	April 2020	✘
PPP	I&AP Comment on EIA Report	30 days	April/May 2020	✘
EAP	Review / Incorporate Comments	2 days	May 2020	✘
GDARD	Review EIA Report and Provide Decision	106 days	June-August 2020	✘
PPP	Notification of Decision / Appeal		August 2020	✘

9 EAP UNDERTAKING

I, **Vanessa Stippel**, as the Environmental Assessment Practitioner managing this application provide the following affirmation in relation to -

- the correctness of the information provided in the report;
- the inclusion of comments and inputs from stakeholders and interested and affected parties; and
- any information provided myself to interested and affected parties and any responses to comments or inputs made by interested and affected parties.
- the level of agreement between myself and interested and affected parties on the plan of study for undertaking the environmental impact assessment.

Designation: Senior Environmental Assessment Practitioner

Prism Environmental Management Services

Company

6 February 2020

Date

10 APPENDICES

10.1 Curriculum Vitae of EAP

10.2 Alternatives

10.3 A3 Maps and Drawings

10.4 Public Participation

10.4.1 Interested and Affected Party Database

10.4.2 Proof of Initial Notification

10.4.2.1 Newspaper Notices

10.4.2.2 Site Notices

10.4.2.3 Background Information Document

10.4.2.4 Proof of Initial Notification

10.4.3 Proof of Notification of Scoping Report Review

10.4.3.1 Newspaper Notice

10.4.3.2 Site Notice

10.4.3.3 Background Information Document

10.4.3.4 Proof of Notification

Please note that all proof will be included in the Scoping Report that is submitted to GDARD for review and acceptance.

10.4.4 Comments and Responses Report

10.4.5 Comments Received

10.4.5.1 Comments during Initial Notification

10.4.5.2 Comments during Review of Scoping Report

10.4.5.3 Comments received after submission of Scoping Report

10.4.5.4 Comments received on EIA Report

10.4.6 GDARD Correspondence

Not yet available.

10.4.6.1 Acceptance of Scoping

10.4.6.2 Receipt of EIA

10.4.6.3 Comments on EIA Report

10.5 Screening tool