




IVECO SOUTH AFRICA (PTY) LTD

Development of the New IVECO Assembly Plant, Rosslyn Environmental Screening Report

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12096

DEVELOPMENT OF THE NEW IVECO ASSEMBLY PLANT, ROSSLYN ENVIRONMENTAL SCREENING REPORT

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DEVELOPMENT OF THE NEW IVECO ASSEMBLY PLANT, ROSSLYN ENVIRONMENTAL SCREENING REPORT

1 INTRODUCTION

SiVEST has been appointed by Iveco South Africa (Pty) Ltd to perform an environmental legislative screening investigation for the proposed development of the new IVECO assembly plant on Erf 72 Rosslyn Ext. 1, the Gauteng Province. This is to be undertaken in order to determine whether the proposed development triggers any environmentally related legislation requires authorisation, licenses or permits. Included in SiVEST's scoping of work was to determine whether a wetland was present to the South East of the site.

The purpose of this report is to document the findings of the legislative screening investigation. The scope of works for the environmental legislative screening investigation includes the following legislation:

- *National Environmental Management Act (Act No. 107 of 1998) – as amended;*
- *Environmental Impact Assessment Regulations (2010);*
- *National Water Act (Act No. 36 of 1998);*
- *National Environmental Management: Waste Act (Act No. 59 of 2008);*
- *National Environmental Management: Air Quality Act (Act No. 39 of 2004).*

The findings and results of the legislative screening investigation in terms of the proposed development are provided below.

2 PROPOSED PROJECT DESCRIPTION

A Joint Venture (JV) company between Iveco South Africa (Pty) Ltd and the Larimar Group plan to lease and possibly purchase the aforementioned property for the purposes of establishing a new vehicle assembly plant (hereafter referred to as the, "proposed development"). There is currently existing infrastructure on the site which is understood to be restored and upgraded for the future proposed development. The total area of the study site is 18 hectares, with existing buildings on the site which will be restored. The new construction area of under a hectare will be extended from the existing infrastructure. The proposed site layout is provided in Figure 1 below.

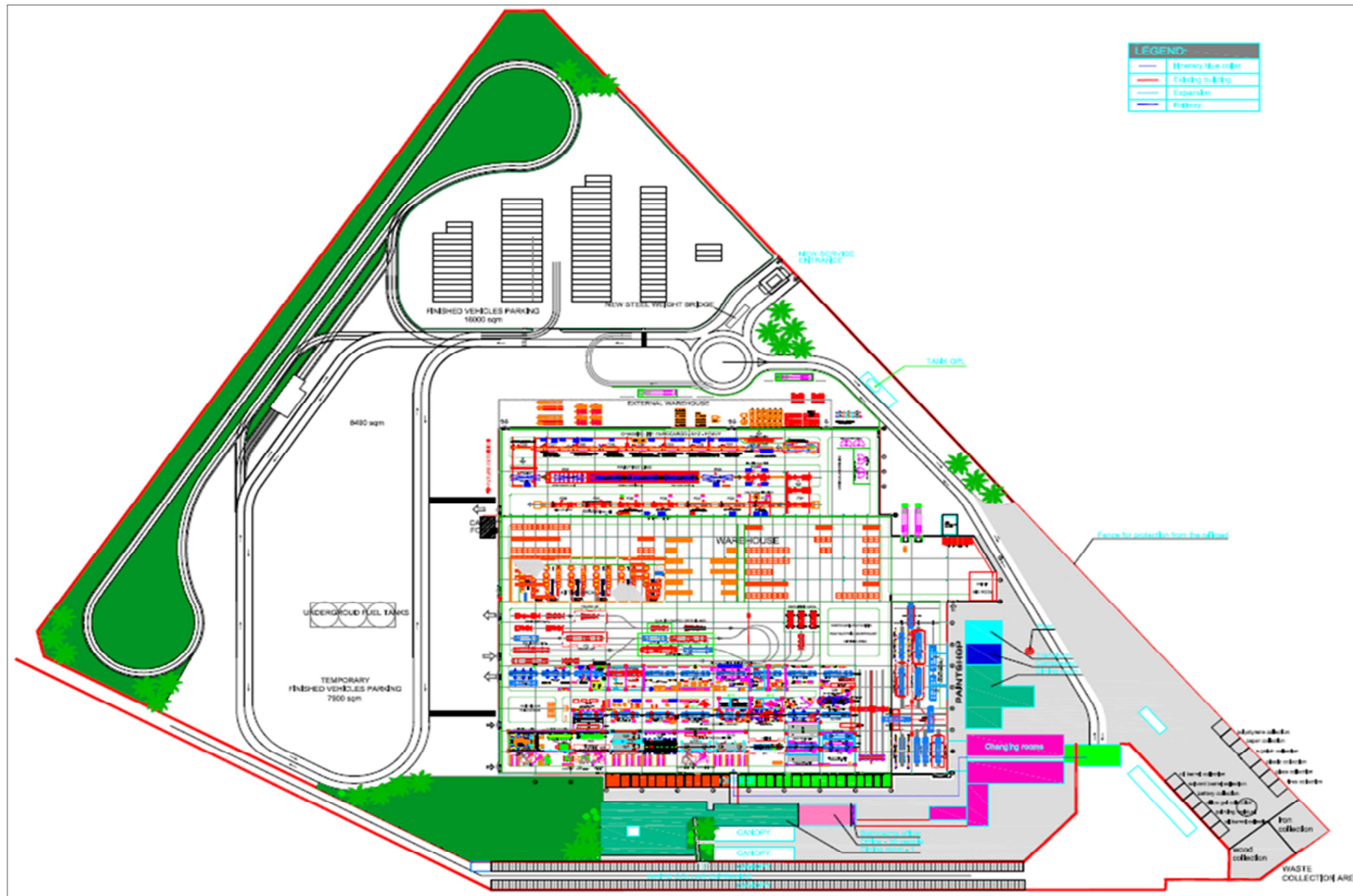


Figure 1. Proposed Site Layout.

3 NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT NO. 107 OF 1998) & ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS (2010)

3.1 Environmental Impact Assessment and Basic Assessment Requirements

The National Environmental Management Act (NEMA) No. 107 of 1998 has since been amended on several occasions from the date of its inception. This Act replaces parts of the Environment Conservation Act (ECA) No. 73 of 1989 with exception to certain parts pertaining to Integrated Environmental Management. The act intends to provide for:

- *co-operative environmental governance by establishing principles for decision-making on matters affecting the environment;*
- *institutions that will promote co-operative governance and procedures for coordinating environmental functions exercised by organs of state;*
- *to provide for the prohibition, restriction or control of activities which are likely to have a detrimental effect on the environment;*
- *and to provide for matters connected therewith.*

NEMA now governs the Environmental Impact Assessment (EIA) process with the promulgation of the new EIA regulations in June 2010 (Government Gazette No. 33306 of 18th June 2010).

Activities identified in terms of the EIA Regulations promulgated in terms of Chapter 5 NEMA, which came into effect on 2nd August 2010, that may significantly affect the environment must be considered, investigated and assessed prior to implementation.

The following Schedules of the Government Notice No. R. 544 and 546 of the 18th June 2010 are of relevance to the proposed development in question. All of the Listed Activities identified in terms of Sections 24(2) and 24D that are or may be relevant to the proposed development are included in **Table 1** below.

Table 1. Listed Activities in terms of the EIA Regulations and NEMA that are or may be of relevance to the proposed development

Listed activities as described in GN R.544 and 546 Listing Notices 1 and 3 of 2010	Description of Project Activity	Relevance to the proposed development (Yes/Possibly)
Government Notice. R544 - Listing Notice 1 of 2010		
9	The construction of facilities or infrastructure exceeding 1000 metres in length for the bulk transportation of water, sewage or storm water - (i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more, excluding where: a. such facilities or infrastructure are for	The proposed development may encompass the construction of storm water infrastructure with an internal diameter of 0.36 metres or more; or infrastructure with a peak throughput of
		Possibly but unlikely

	<p>bulk transportation of water, sewage or storm water or storm water drainage inside a road reserve; or</p> <p>b. where such construction will occur within urban areas but further than 32 metres from a watercourse, measured from the edge of the watercourse.</p>	120 litres per second or more within 32 metres of a watercourse	
10	<p>The construction of facilities or infrastructure for the transmission and distribution of electricity -</p> <p>(i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts; or</p> <p>(ii) inside urban areas or industrial complexes with a capacity of 275 kilovolts or more.</p>	Overhead power lines may be required for the proposed development for the distribution of electricity with a capacity of more than 33kV but less than 275kV.	Possibly but unlikely
11	<p>The construction of:</p> <p>(i) canals;</p> <p>(ii) channels;</p> <p>(iii) bridges;</p> <p>(iv) dams;</p> <p>(v) weirs;</p> <p>(vi) bulk storm water outlet structures;</p> <p>(vii) marinas;</p> <p>(viii) jetties exceeding 50 square metres in size;</p> <p>(ix) slipways exceeding 50 square metres in size;</p> <p>(x) buildings exceeding 50 square metres in size; or</p> <p>(xi) infrastructure or structures covering 50 square metres or more</p> <p>where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.</p>	The proposed development may entail the construction of buildings, structures or infrastructure covering 50 square metres or more within 32 metres of a watercourse.	Possibly but unlikely
23	<p>The transformation of undeveloped, vacant or derelict land to –</p> <p>(i) residential, retail, commercial, recreational, industrial or institutional use, inside an urban area, and where the total area to be transformed is 5 hectares or more, but less than 20</p>	The proposed development may require the transformation of over 1 hectare but less than 20 hectares of vacant/derelict	Possibly and highly likely

	<p>hectares, or</p> <p>(ii) residential, retail, commercial, recreational, industrial or institutional use, outside an urban area and where the total area to be transformed is bigger than 1 hectare but less than 20 hectares; -</p> <p>except where such transformation takes place for linear activities.</p>	land to industrial use.	
27	<p>The decommissioning of existing facilities or infrastructure, for -</p> <p>(i) electricity generation with a threshold of more than 10MW;</p> <p>(ii) electricity transmission and distribution with a threshold of more than 132kV;</p> <p>(iii) nuclear reactors and storage of nuclear fuel;</p> <p>(iv) activities, where the facility or the land on which it is located is contaminated ;</p> <p>(v) storage, or storage and handling, of dangerous goods of more than 80 cubic metres;</p> <p>but excluding any facilities or infrastructure that commenced under an environmental authorisation issued in terms of the Environmental Impact Assessment Regulations, 2006 made under section 24(5) of the Act and published in Government Notice No. R. 385 of 2006, or Notice No. 543 of 2010.</p>	Decommissioning of existing infrastructure will be taking place in site. The paint shop, transformers and storage tanks will need to be decommissioned.	Possibly
28	<p>The expansion of existing facilities for any process or activity where such expansion will result in the need for a new, or amendment of, an existing permit or license in terms of national or provincial legislation governing the release of emissions or pollution, excluding where the facility, process or activity is included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case that Act will apply.</p>		Possibly
39	<p>The expansion of</p> <p>(i) canals;</p> <p>(ii) channels;</p>	The proposed development may encompass the construction of storm	Possibly but unlikely

	<ul style="list-style-type: none"> (iii) bridges; (iv) weirs; (v) bulk storm water outlet structures; (vi) marinas; <p>within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, where such expansion will result in an increased development footprint but excluding where such expansion will occur behind the development setback line.</p>	water infrastructure with an internal diameter of 0.36 metres or more; or infrastructure with a peak throughput of 120 litres per second or more within 32 metres of a watercourse	
Government Notice. R546 - Listing Notice 3 of 2010			
4 (b)	<p>The construction of a road wider than 4 metres with a reserve less than 13,5 metres.</p> <p>(b) In Gauteng:</p> <ul style="list-style-type: none"> i. A protected area identified in terms of NEMPAA, excluding conservancies; ii. National Protected Area Expansion Strategy Focus areas; iii. Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; vii. Any declared protected area including Municipal or Provincial Nature Reserves as contemplated by the Environment Conservation Act, 1989 (Act No. 73 of 1989) and the Nature Conservation Ordinance (Ordinance 12 of 1983). 	The proposed development may require roads that are wider than 4 metres with a reserve less than 13,5 metres in either a protected area in terms of NEMPAA, National Protected Area Expansion Strategy Focus areas, sensitive areas as identified in an environmental management framework, or any declared protected area including Municipal or Provincial Nature Reserves.	Possible but highly unlikely
10 (c)	<p>The construction of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres.</p> <p>(a) In Gauteng:</p> <ul style="list-style-type: none"> i. A protected area identified in terms of NEMPAA, excluding conservancies; ii. National Protected Area Expansion Strategy Focus areas; iii. Sensitive areas as identified in an 	The proposed development may require the construction of facilities or infrastructure for the storage or handling of a dangerous good where such storage occurs in containers with a combined	Possibly but highly unlikely

	<p>environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;</p> <p>vii. Within 100 metres of a watercourse or within 100 metres of wetland that is not linked to a watercourse;</p> <p>viii. Any declared protected area including Municipal or Provincial Nature Reserves as contemplated by the Environment Conservation Act, 1989 (Act No. 73 of 1989), the Nature Conservation Ordinance (Ordinance 12 of 1983) and the NEMPAA.</p>	<p>capacity of 30 but not exceeding 80 cubic metres either a protected area in terms of NEMPAA, National Protected Area Expansion Strategy Focus areas, sensitive areas as identified in an environmental management framework, within 100 metres of a wetland that is not linked to a watercourse or any declared protected area including Municipal or Provincial Nature Reserves.</p>	
11 (c)	<p>The construction of tracks or routes for the testing, recreational use or outdoor racing of motor powered vehicles excluding conversion of existing tracks or routes for the testing, recreational use or outdoor racing of motor powered vehicles.</p> <p>(c) In Gauteng:</p> <p>i. A protected area identified in terms of NEMPAA, excluding conservancies;</p> <p>ii. National Protected Area Expansion Strategy Focus areas;</p> <p>iii. Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;</p> <p>vi. Within 100 metres of a watercourse or within 100 metres of wetland that is not linked to a watercourse;</p> <p>vii. Any declared protected area including Municipal or Provincial Nature Reserves as contemplated by the</p>	<p>The proposed development may require the construction of tracks or routes for the testing of motor powered vehicles within a protected area in terms of NEMPAA, National Protected Area Expansion Strategy Focus areas, sensitive areas as identified in an environmental management framework, within 100 metres of a wetland that is not linked to a watercourse or any declared protected area including</p>	<p>Possibly but highly unlikely</p>

	Environment Conservation Act, 1989 (Act No. 73 of 1989) and the Nature Conservation Ordinance (Ordinance 12 of 1983).	Municipal or Provincial Nature Reserves.	
12	<p>The clearance of an area of 300 square metres or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation.</p> <p>(a) Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;</p> <p>(b) Within critical biodiversity areas identified in bioregional plans;</p>	The proposed development may require the clearance of an area of 300 square metres or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation within critically endangered or endangered ecosystems listed in terms of section 52 of the NEMBA or within an area identified as critically endangered in the National Spatial Biodiversity Assessment 2004, or within critical biodiversity areas identified within bioregional plans.	Possible but unlikely
13	<p>The clearance of an area of 1 hectare or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation, except where such removal of vegetation is required for:</p> <p>1) the undertaking of a process or activity included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008), in which case the activity is regarded to be excluded from this list.</p> <p>2) the undertaking of a linear activity falling below the thresholds mentioned in Listing</p>	The proposed development may require the clearance of an area of 1 hectare or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation in a protected area in terms of NEMPAA, National Protected Area Expansion Strategy Focus areas, any declared	Possibly but highly unlikely

	<p>Notice 1</p> <p>(a) Critical biodiversity areas and ecological support areas as identified in systematic biodiversity plans adopted by the competent authority.</p> <p>(b) National Protected Area Expansion Strategy Focus areas.</p> <p>(d) In Gauteng:</p> <p>i. A protected area identified in terms of NEMPAA, excluding conservancies;</p> <p>ii. National Protected Area Expansion Strategy Focus areas;</p> <p>iii. Any declared protected area including Municipal or Provincial Nature Reserves as contemplated by the Environment Conservation Act, 1989 (Act No. 73 of 1989), the Nature Conservation Ordinance (Ordinance 12 of 1983); (v) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;</p>	protected area including Municipal or Provincial Nature Reserves.	
22 (d)	<p>The expansion of tracks or routes for the testing, recreational use or outdoor racing of motor powered vehicles excluding conversion of existing tracks or routes for the testing, recreational use or outdoor racing of motor powered vehicles, where the development footprint will be expanded.</p> <p>(b) In Gauteng:</p> <p>i. A protected area identified in terms of NEMPAA, excluding conservancies;</p> <p>ii. National Protected Area Expansion Strategy Focus areas;</p> <p>iii. Any declared protected area including Municipal or Provincial Nature Reserves as contemplated by the Environment Conservation Act, 1989 (Act No. 73 of 1989) and the Nature</p>	The proposed development will include the construction of existing roads on site for a testing track for assembled vehicles potentially in a protected area in terms of NEMPAA, National Protected Area Expansion Strategy Focus areas, any declared protected area including Municipal or Provincial Nature Reserves.	Possibly but highly unlikely

	Conservation Ordinance (Ordinance 12 of 1983); iv.		
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4 NATIONAL WATER ACT (ACT NO. 36 OF 1998)

4.1 General Authorisation and Water Use Potential Requirements

The National Water Act (NWA) (Act No. 36 of 1998) was promulgated on the 20th August 1998. This Act is important in that it provides a framework to protect water resources against over exploitation and to ensure that there is water for social and economic development, human needs and to meet the needs of the aquatic environment. The Act also recognises that water belongs to the whole nation for the benefit of all people.

It is important to note that water resources are protected under the Act. Under the act, water resources as defined include a watercourse, surface water, estuary or aquifer. A watercourse is defined as a river or spring, a natural channel in which water flows regularly or intermittently, or a wetland, lake or dam into which, or from which water flows.

One of the main aims of the Act is the protection of water resources. 'Protection' in relation to a water resource entails:

- *Maintenance of the quality of the water resource to the extent that the water use may be used in a sustainable way;*
- *Prevention of degradation of the water resource; and*
- *The rehabilitation of the water resource.*

In the context of the NWA and the proposed development, a "water use" is required where construction activities will impact on a water resource. In this light, "water use" is defined inter alia as follows:

- a) *Taking water from a water resource;*
- b) *Storing water;*
- c) *Impeding or diverting the flow of water in a watercourse;*
- d) *Engaging in stream flow reduction activity contemplated in Section 36 of the NWA;*
- e) *Engaging in a controlled activity identified as such in Section 37 (1) or declared under Section 38(1) of the NWA;*
- f) *Discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit;*
- g) *Disposing of waste in a manner which may detrimentally impact on a water resource;*
- h) *Disposing of waste in a manner of water which contains waste from, or which has been heated in any industrial or power generation process;*
- i) *Altering the bed, banks, course or characteristics of a watercourse;*
- j) *Removing, discharging or disposing of water found underground if it is necessary for efficient continuation of an activity or for the safety of people; and*
- k) *Using water for recreational purposes.*

In this context, a Water Use License would be required where any of the above water uses are required for a development. As such, for the proposed development, it is not anticipated that any water uses will be required for the proposed development as no impact would directly take place on the wetland which is located off site. However, Government Notice 1199 does however apply to the proposed development. Government Notice 1199 makes for the provision of a General Authorisation with respect to water uses (c) and (i) if certain conditions are met, except where water uses (c) and (i) are triggered for activities that will take place on a watercourse and within 500 metres of a delineated wetland. In this instance, the proposed development will be within the 500 metre threshold (**Appendix A**) but no impact will take place on a watercourse in terms of water uses (c) and (i).

Should any structure or infrastructure need to be placed within 32 metres from the edge of the wetland, that covers an area of 50 metres or more, the activity would be triggered and a basic assessment would need to be carried out to obtain environmental authorisation prior to development. To avoid triggering this activity it is recommended that no development take place within 32 metres of the wetland.

With regards to the NWA, it is not envisaged that any impact as a result of the proposed development will trigger a Water Use License or Government Notice 1199 since the wetland is located off the proposed development site. However, it is recommended that the Department of Water Affairs are consulted to provide final decision on the application of the water uses and Government Notice 1199 given the project specific nature and condition of the wetland.

5 NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT (ACT NO. 59 OF 2008)

5.1 Potential Waste Permits, License and Authorisation Requirements

The National Environmental Management: Waste Act (NEMWA) (Act No. 59 of 2008) was promulgated on the 20th August 2008. This Act was enacted *inter alia* to:

- *reform the law regulating waste management in order to protect health and the*
- *environment by providing reasonable measures for the prevention of pollution and*
- *ecological degradation and for securing ecologically sustainable development; to*
- *provide for institutional arrangements and planning matters; to provide for*
- *national norms and standards for regulating the management of waste by all*
- *spheres of government; to provide for specific waste management measures; to*
- *provide for the licensing and control of waste management activities; to provide for*
- *the remediation of contaminated land; to provide for the national waste*
- *information system; to provide for compliance and enforcement.*

The object of this Act is-

- *to protect health, well-being and the environment by providing reasonable*
- *measures for—*
 - *minimising the consumption of natural resources;*
 - *avoiding and minimising the generation of waste;*
 - *reducing, re-using, recycling and recovering waste;*

- *treating and safely disposing of waste as a last resort;*
- *preventing pollution and ecological degradation;*
- *securing ecologically sustainable development while promoting justifiable economic and social development;*
- *promoting and ensuring the effective delivery of waste services;*
- *remediating land where contamination presents, or may present, a significant risk of harm to health or the environment; and*
- *achieving integrated waste management reporting and planning;*
- *to ensure that people are aware of the impact of waste on their health, well-being and the environment;*
- *to provide for compliance with the measures set out in paragraph (a); and*
- *generally, to give effect to section 24 of the Constitution in order to secure an environment that is not harmful to health and well-being.*

In terms of the above, the following Waste Categories according to **NEMWA** have been identified that are or may be of relevance to the proposed development in question. These are included in **Table 12** below.

Table 2. Listed Activities in terms of NEMWA that are or may be of relevance to the proposed development

National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)		Description of Project Activity	Relevance to the proposed development (Yes/Possibly)
Category A (1),	Storage of Waste (1) The storage, including the temporary storage, of general waste at a facility that has the capacity to store in excess of 100m ³ of general waste at any one time, excluding the storage of waste in lagoons.	The proposed development may require the storage (including temporary) at a facility that has the capacity to store in excess of 100m ³ of general waste at any one time.	Possibly
Category A (5)	The sorting, shredding, grinding or bailing of general waste at a facility that has the capacity to process in excess or one ton of general waste per day.	Separation of solid waste on site.	Possibly but unlikely
Category A (6)	Reuse, recycling and recovery (6) The scrapping or recovery of motor vehicles at a facility that has an operational area in excess of 500m ² .	The proposed development may require the scrapping of motor vehicles at a facility that has an operational area in excess of 500m ² .	Possibly but unlikely
Category	The recycling or re-use of general waste of	Separation of solid	Possibly but

A (7)	more than 10 tons per month.	waste on site.	unlikely
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6 NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT (ACT NO. 39 OF 2004)

6.1 Potential Air Quality Emissions Licenses, Permit and Authorisation Requirements

The National Environmental Management: Air Quality Act (NEMAQA) (Act No. 39 of 2004) was formulated to reform the law regulating air quality in order to protect the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development while promoting justifiable economic and social development; to provide for national norms and standards regulating air quality monitoring, management and control by all spheres of government; for specific air quality measures.

The object of this Act is-

- *to protect the environment by providing reasonable measures for-*
 - *the protection and enhancement of the quality of air in the Republic;*
 - *the prevention of air pollution and ecological degradation; and*
 - *securing ecologically sustainable development while promoting justifi-*
- *generally to give effect to section 24(b) of the Constitution in order to enhance the quality of ambient air for the sake of securing an environment that is not harmful to the health and well-being of people.*

Given the SiVEST's current knowledge of the project and after examining the **NEMAQA**, it is unlikely that any of the categories will be triggered by the proposed activities that are planned for the New Iveco plant in Rosslyn.

7 CONCLUSION

An environmental screening investigation was undertaken to determine the various potential authorisation, license and permits requirements for the proposed development in terms of environmental legislation. The legislation examined included:

- *National Environmental Management Act (Act No. 107 of 1998) – as amended;*
- *Environmental Impact Assessment Regulations (2010);*
- *National Water Act (Act No. 36 of 1998);*
- *National Environmental Management: Waste Act (Act No. 59 of 2008);*
- *National Environmental Management: Air Quality Act (Act No. 39 of 2004).*

Ultimately, several activities in terms of the legislation above were identified that may be relevant to the proposed development. However, consultation with the various authorities will be required in order for the final applicability to be determined.

SiVEST propose an initial meeting with the Gauteng Department of Agriculture and Rural Development (GDARD) to discuss the proposed development and to outline a way forward for any Environmental Authorisations required.

In terms of the EIA Regulations recently promulgated in terms of Chapter 5 NEMA on the 18th June 2010, SiVEST suggest that a Basic Assessment process is required for the proposed development.

The BA studies will identify the impacts associated with the proposed new development. The BA will also undertake a site selection / alternative process by comparatively assessing alternatives. Additionally cumulative impacts will be identified. Where alternatives are not available, SiVEST will investigate the option of applying for exemption from alternatives. The EMP will also discuss the mitigation measures for all the impacts.

A Public Participation Process is required to be undertaken in terms of the regulations.

The BA will be undertaken in order to achieve the following:

- *To identify, assess and evaluate potential environmental (related to the natural and social environments) effects that are likely to occur as a result of the proposed development.*
- *To evaluate potential environmental effects of site specific or alternative development proposals.*
- *To identify and describe procedures and measures for mitigating anticipated negative impacts and those that are likely to enhance the positive impacts of the proposed development.*
- *To liaise with interested and affected parties and relevant government departments on issues relating to the proposed development to ensure compliance with existing policies, guidelines, regulations (by-laws) and accommodate public views (i.e. to undertake full public participation as part of the EIA process).*
- *To formulate an Environmental Management Programme and, when necessary, a decommissioning plan.*
- *To feed into the technical planning and engineering process, so that design and engineering of the plant can take environmental factors into account throughout the process.*
- *To interact with the design engineers on provisional and final design options.*
- *To consider alternatives (location (routing), design and technical alternatives for example).*

Should any structure or infrastructure need to be placed within 32 metres from the edge of the wetland, that covers an area of 50 metres or more, the activity would be triggered and a basic assessment would need to be carried out to obtain environmental authorisation prior to development. To avoid triggering this activity it is recommended that no development take place within 32 metres of the wetland.

With regards to the NWA, it is not envisaged that any impact as a result of the proposed development will trigger a Water Use License or Government Notice 1199 since the wetland is

located off the proposed development site. However, it is recommended that the Department of Water Affairs are consulted to provide final decision on the application of the water uses and Government Notice 1199 given the project specific nature and condition of the wetland.



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Appendix A:
Site Investigation Wetland Report




IVECO SOUTH AFRICA (PTY) LTD

Wetland Site Investigation Report for the IVECO Rosslyn Plant

Wetland Identification Report

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Environmental Affairs
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DETAILS OF SPECIALIST AND DECLARATION OF INTEREST

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Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010

PROJECT TITLE

Wetland Site Investigation Report for the IVECO Rosslyn Plant

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Telephone:	n/a	Fax:	n/a
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The specialist appointed in terms of the Regulations,

I, **Shaun Taylor**, declare that --

General declaration:

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- all the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 71 and is punishable in terms of section 24F of the Act.



Signature of the specialist

SiVEST Environmental

Name of company (if applicable)

22nd May 2013

Date

**WETLAND SITE INVESTIGATION FOR THE PROPOSED
DEVELOPMENT OF THE IVECO PLANT**

WETLAND IDENTIFICATION REPORT

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WETLAND SITE INVESTIGATION FOR THE PROPOSED DEVELOPMENT OF THE IVECO PLANT

WETLAND IDENTIFICATION REPORT

1 INTRODUCTION

SiVEST has been appointed by Iveco South Africa (Pty) Ltd to perform a wetland site investigation on Erf 72 Rosslyn Ext. 1 in order to determine whether any wetlands could be identified on the site. A brief site investigation was conducted on the 6th of May 2013 to investigate the potential occurrence of wetlands. The purpose of this report is to document the findings of the site investigation and provide recommendations.

2 PROJECT DESCRIPTION

Iveco South Africa (Pty) Ltd plan to purchase the aforementioned property for the purposes of establishing a new plant (hereafter referred to as the, "proposed development"). There is currently existing infrastructure on the site which is understood to be restored and upgraded for the future planned development. The total area of the study site is 18 hectares, with existing buildings on the site which will be restored. The new construction area of 0.1 hectares will be extended from the existing infrastructure. The current site layout is provided in Figure 1 below.

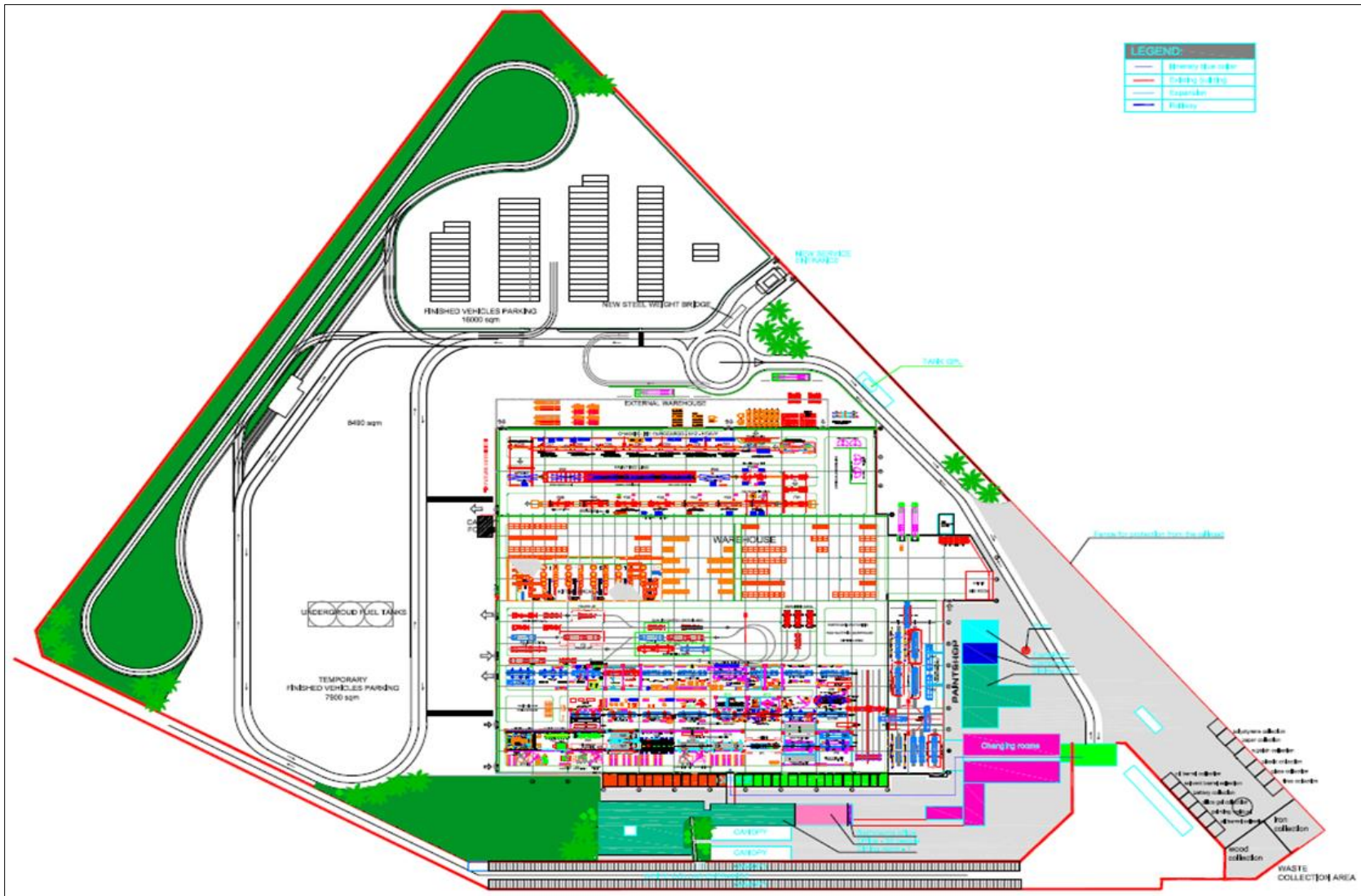


Figure 1. Site Layout.

3 WETLANDS AND HYDROMORPHIC SOILS

The National Water Act, No. 36 of 1998 (NWA) defines wetlands 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". Wetlands are a very important component of the natural environment, as they are typically characterised by high levels of biodiversity and are critical for sustaining human livelihoods through the provision of water for drinking and other human uses. Wetlands are sensitive features of the natural environment. Pollution or degradation of wetlands can result in a loss of biodiversity, as well as an adverse impact on the human users which depend on the natural resource to sustain their livelihoods. As such, wetlands are specifically protected under the NWA and generally under the National Environmental Management Act, No. 107 of 1998 (NEMA).

Hydromorphic (Hydric) soils are soils that are found within wetlands. Hydric soils are defined by the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) as being "soils that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part". These anaerobic conditions would typically support the growth of hydromorphic vegetation (vegetation adapted to grow in soils that are saturated and depleted of oxygen) and are typified by the presence of redoximorphic features (chemical features that develop in the soil under oxygenless conditions). The presence of hydric (wetland) soils on the site of a proposed development is significant, as the alteration or destruction of these areas, or development within a certain radius of these areas would require authorisation in terms of the NWA and the Environmental Impact Assessment Regulations (2010) promulgated under the NEMA.

Wetland identification and delineations are based primarily on soil wetness indicators. For an area to be considered a wetland, redoximorphic features must be present within 50cm of the surface soil profile (Collins, 2005). Redoximorphic features are the result of the reduction, translocation and oxidation (precipitation) of Fe (iron) and Mn (manganese) oxides that occur when soils alternate between aerobic (oxygenated) and anaerobic (oxygen-less) conditions. Only once soils within 50cm of the surface display these redoximorphic features, can the soils be considered 'hydric soils'. Three other indicators (vegetation, soil form and terrain unit) are used in combination with soil wetness indicators to supplement findings.

4 APPROACH AND METHODOLOGY

The potential occurrence / non-occurrence of wetlands and wetland (hydric) soils on the study site were assessed according to the **DWAF (2005)** guidelines, “A practical field procedure for the identification and delineation of wetlands and riparian areas”. According to the DWAF guidelines, soil wetness indicators (i.e. identification of redoximorphic features) are the most important indicator of wetland occurrence. This is mainly due to the fact that soil wetness indicators remain in wetland soils, even if they are degraded or desiccated. It is important to note that the presence or absence of redoximorphic features within the upper 50cm of the soil profile alone is sufficient to identify the soil as being hydric or non-hydric (non-wetland soil) (**Collins, 2005**). Three other indicators (vegetation, soil form and terrain unit) are used in combination with soil wetness indicators to supplement findings. Where soil wetness and/or soil form could not be identified, information and personal professional judgment was exercised using the other indicators to determine what area would represent the outer edge of the wetland.

The actual identification process entailed drawing soil samples, at depths between 0-50 cm in the soil profile, using a soil augur. This is done in order to determine the soil characteristics of a potential wetland area. A conventional handheld Global Positioning System (GPS) was used to record the point(s) taken in the field. The GPS points are then imported into a GIS system for mapping purposes. The GPS is expected to be accurate from 15 meters up to 5 metres depending on meteorological conditions. A GIS shapefile is created to represent the boundaries of the delineated wetlands.

5 SITE INVESTIGATION FINDINGS

The entire site was surveyed for potential wetland areas (Figure 1) on the 6th May 2013. The lowest lying areas were of specific interest. This area is located to the south east of the study site. Typical wetland vegetation (*Typha capensis* – Photo 1) was observed emerging from *Kikuyu pennisetum* at a relatively modified piece of land located just south of the proposed development site (outside the site boundary). Soil samples drawn from this area revealed redoximorphic features (in the form of sesquioxide iron mottling – Photo 2) in the top 50cm of the soil profile. The topography of the site is relatively flat and the potential occurrence of a wetland in this position of the landscape is likely. However, the extent of the wetland is rather limited and appears to have been reduced / modified due to the encroachment of existing surrounding buildings and road and road servitude and storm water infrastructure. There is also a degree of soil disturbance in the immediate vicinity of the wetland area where presumably soil stockpiling has taken place. A larger wetland may therefore have occurred in this position historically. However, the wetland has currently been significantly reduced in size. Given the indicators present, the potential wetland can be confirmed as a wetland.

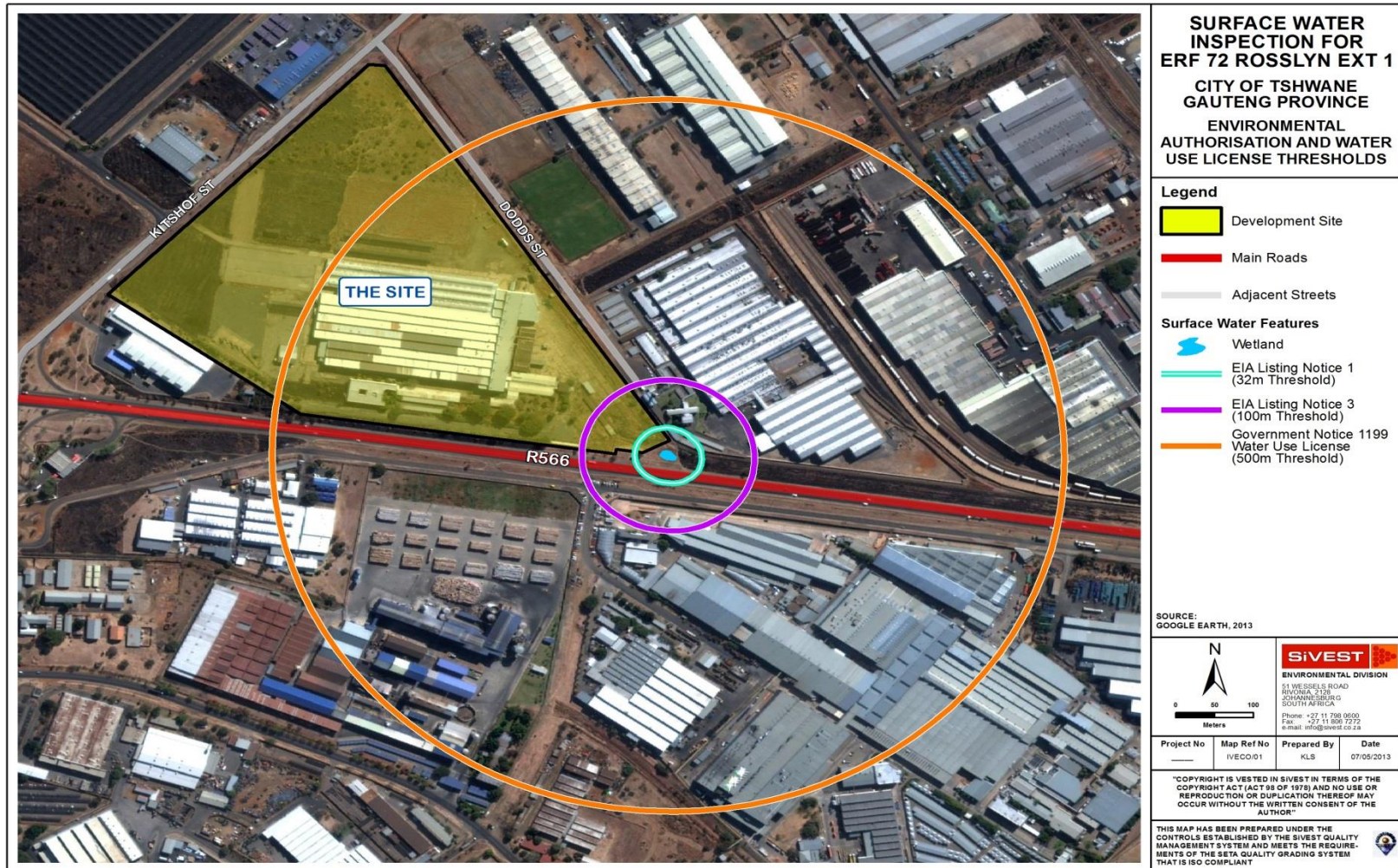


Figure 1: Wetland investigation map



Photo 1: Emergent vegetation in the wetland area.



Photo 2: Redoximorphic features indicative of wetland soils evident in the soil samples.

IMPLICATIONS FOR THE PROPOSED DEVELOPMENT

The identified wetland is located approximately 10 metres off the study site. In the context of NEMA (1998), the EIA Regulations (2010) and the proposed development, the proposed development area therefore falls inside the 32 metre and 100 metre threshold (Figure 1) potentially triggering Listed Activity No. 11 of Government Notice R. 544 Listing Notice 1 as well as Listed Activities No. 10 and No. 11 of Government Notice R. 546 Listing Notice 3 respectively of the EIA Regulations (2010). Each activity is outlined below in detail.

Listed Activity 11 of Government Notice R. 544 - The construction of:

- i. canals;
- ii. channels;
- iii. bridges;
- iv. dams;
- v. weirs;
- vi. bulk storm water outlet structures;
- vii. marinas;
- viii. jetties exceeding 50 square metres in size;
- ix. slipways exceeding 50 square metres in size;
- x. buildings exceeding 50 square metres in size; or
- xi. infrastructure or structures covering 50 square metres or more

where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.

Should any structure or infrastructure need to be placed within 32 metres from the edge of the wetland, that covers an area of 50 metres or more, the activity would be triggered and a basic assessment would need to be carried out to obtain environmental authorisation prior to development.

Listed Activity 10 of Government Notice R. 546 - The construction of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres.

(a) In Gauteng:

- vi. Within 100 metres of a watercourse or within 100 metres of wetland that is not linked to a watercourse

Listed Activity 11 of Government Notice R. 546 - The construction of tracks or routes for the testing, recreational use or outdoor racing of motor powered vehicles excluding conversion of existing tracks or routes for the testing, recreational use or outdoor racing of motor powered vehicles.

(a) In Gauteng:

- vi. Within 100 metres of a watercourse or within 100 metres of wetland that is not linked to a watercourse;

Should any of the above mentioned construction activities occur or need to take place within 100 metres from the edge of the wetland, the activity would be triggered and a basic assessment would need to be carried out to obtain environmental authorisation prior to development.

In the context of the NWA and the proposed development, a “water use” is required where construction activities will impact on a water resource. In this light, “water use” is defined *inter alia* as follows:

- a) *Taking water from a water resource;*
- b) *Storing water;*
- c) *Impeding or diverting the flow of water in a watercourse;*
- d) *Engaging in stream flow reduction activity contemplated in Section 36 of the NWA;*
- e) *Engaging in a controlled activity identified as such in Section 37 (1) or declared under Section 38(1) of the NWA;*
- f) *Discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit;*
- g) *Disposing of waste in a manner which may detrimentally impact on a water resource;*
- h) *Disposing of waste in a manner of water which contains waste from, or which has been heated in any industrial or power generation process;*
- i) *Altering the bed, banks, course or characteristics of a watercourse;*
- j) *Removing, discharging or disposing of water found underground if it is necessary for efficient continuation of an activity or for the safety of people; and*
- k) *Using water for recreational purposes.*

In this context, a Water Use License would be required where any of the above water uses are required for a development. As such, for the proposed development, it is not anticipated that any water uses will be required for the proposed development as no impact would directly take place on the wetland which is located off site. However, Government Notice 1199 does however apply to the proposed development. Government Notice 1199 makes for the provision of a General Authorisation with respect to water uses (c) and (i) if certain conditions are met, except where water uses (c) and (i) are triggered for activities that will take place on a watercourse and within 500 metres of a delineated wetland. In this instance, the propose development will be within the 500 metre threshold (Figure 1) but no impact will take place on a watercourse in terms of water uses (c) and (i). The Department of Water Affairs would need to be consulted to provide final input on whether a full Water Use License or a General Authorisation will be required.

6 CONCLUSION AND RECOMMENDATIONS

A site investigation was conducted on the study site to determine the presence of a wetland. The in-field investigation confirmed the presence of a wetland. Several legislative implications were anticipated to potentially be applicable to the proposed development. More specifically, in terms of the EIA Regulations (2010), the proposed development area falls inside the 32 metre threshold for Listed Activity No. 11 of Government Notice R. 544 Listing Notice 1. Should any structure or

infrastructure need to be placed within 32 metres from the edge of the wetland, that covers an area of 50 metres or more, the activity would be triggered and a basic assessment would need to be carried out to obtain environmental authorisation prior to development. To avoid triggering this activity it is recommended that no development take place within 32 metres of the wetland.

With regards to the NWA, it is not envisaged that any impact as a result of the proposed development will trigger a Water Use License or Government Notice 1199. However, it is recommended that the Department of Water Affairs are consulted to provide final decision on the application of the water uses and Government Notice 1199 given the project specific nature and condition of the wetland.

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