DRAFT SCOPING REPORT FOR
HI-FOS (PTY) LTD PROPOSED PHOSPHORIC ACID PLANT, STANDERTON, MPUMALANGA FOR:

1. **AN ENVIRONMENTAL AUTHORISATION IN TERMS OF SECTION 24(2) AND 24D OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NO. 107 OF 1998) REFERENCE NUMBER 1/3/1/16/G45**
2. **AN ATMOSPHERIC EMISSIONS LICENCE IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT (NO. 39 OF 2004).**
3. **A WATER USE LICENSE APPLICATION IN TERMS OF SECTION 21 OF THE NATIONAL WATER ACT (NO. 36 OF 1998).**

Draft
This Draft Scoping Report has been prepared for stakeholder review

Compiled By
P.J. Tolksdorff
N. Maraschin

Job No
SON001 – 2.2015

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Date
November 2016

Compiled For
Hi-Fos (Pty) Ltd

Environmental Consultants and Project Managers

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PURPOSE OF THIS DOCUMENT

This Draft Scoping Report contains:

- A description of the existing and proposed activities.
- A description of the alternatives considered to date.
- An outline of the proposed process to be followed.
- Information on the proponent, Environmental Assessment Practitioner (EAP) and stakeholders who have chosen to participate in the project.
- An outline of the environment in which the projects fall.
- Information on the potential environmental impacts to be studied in more detail during the Environmental Impact Assessment (EIA) phase of the project.
- Information on the proposed specialist studies to be undertaken.
- The comments and concerns raised to date.

During the Scoping phase, issues and concerns of stakeholders, registered interested and affected parties (I&APs), are identified and evaluated in order to highlight significant issues that may require further investigation and assessment by specialists. You are hereby invited to review the Draft Scoping Report that is available for public review from 10 November 2016 to 10 December 2016. Please note that substantiated issues and comments must be submitted in writing to Terra Pacis Environmental (Pty) Ltd (Terra Pacis) before 10 December 2016. It would be appreciated if comments could be made well within this period in order for us to address these comments appropriately.

After the Draft Scoping Report comment period, the report will be updated with comments received and a Final Scoping Report will be submitted to the delegated lead authorities responsible for authorising this project, in this case the Mpumalanga Department of Agriculture, Rural Development, Land and Environmental Affairs (DARDLEA) who will consider the findings in consultation with various other authorities and issue a decision to proceed onto the next phase, that being the EIA phase.

YOUR COMMENT ON THE DRAFT SCOPING REPORT

You are invited to review the Draft Scoping Report that is available for public review from 10 November 2016 to 10 December 2016. Please note that substantiated issues and comments must be submitted in writing to Terra Pacis before 10 December 2016. It would be appreciated if comments could be made well within this period in order for us to address these comments appropriately.

After reviewing the Draft Scoping Report please could you sign the record register below. If you have any further enquiries, please feel free to contact:

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RECORD REGISTER

NAME	FAX NO.	CELL NO.	EMAIL

EXECUTIVE SUMMARY

INTRODUCTION

The proponent, Hi-Fos (Pty) Ltd (Hi-Fos), propose to construct and operate the following:

- Phosphoric Acid Plant.
- Calcium Ammonium Nitrate (CNX) Plant.
- Pure Mono Ammonium Phosphate (MAP 39) Plant.
- Mono Ammonium Phosphate (MAP 33) Plant.

and to move the Granular Fertilizer Blending Plant from Sonskyn (Pty) Ltd in Standerton to the proposed Phosphoric Acid Plant site (the site).

In order to construct and operate the abovementioned plants (collectively named the proposed Phosphoric Acid Plant) Hi-Fos, is applying, by way of Scoping and Environmental Impact Reporting (S&EIR) process for:

1. An environmental authorisation (EA) (1/3/1/16/G45) in terms of section 24(2) and 24D of the National Environmental Management Act (No. 107 of 1998) (NEMA).
2. An Atmospheric Emissions Licence (AEL) in terms of the National Environmental Management: Air Quality Act (No. 39 of 2004) (NEM:AQA).
3. A Water Use License Application (WULA) in terms of section 21 of the National Water Act (No. 36 of 1998) (NWA).

In addition to the above, Hi-Fos need to comply with the Norms and Standards, Government Notice Regulation (GNR) 926 (29 November 2013) issued in term of the National Environmental Management: Waste Act (No. 59 of 2008) (NEM:WA), that provides minimum standards for the design and operation of new and existing waste storage facilities, without the need to undertake an EA process.

OVERVIEW OF THE APPLICATIONS BEING MADE

Environmental Authorisation

EA in terms of section 24(2) and 24D of the NEMA is required for the following listed activities identified in terms of GNR 983 (4 December 2014):

Activity 24: The development of-

(i) a road for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or

(ii) a road with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 meters

but excluding –

(a) roads which are identified and included in activity 27 in Listing Notice 2 of 2014;
(b) or roads where the entire road falls within an urban area.

EA in terms of section 24(2) and 24D of the NEMA is required for the following listed activities identified in terms of GNR 984 (4 December 2014):

Activity 4: The development 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 more than 500 cubic metres.

Activity 6: The development of facilities or infrastructure for any process or activity which requires a permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent, excluding-

(i) activities which are identified and included in Listing Notice 1 of 2014;
(ii) activities which are 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 National Environmental Management: Waste Act, 2008 applies; or
(iii) the development of facilities or infrastructure for the treatment of effluent, wastewater or sewage where such facilities have a daily throughput capacity of 2000 cubic metres or less.

Atmospheric Emissions Licence Application

An AEL is required in terms of section 37 of the NEM:AQA in respect of the following activity identified in GNR 839 (22 November 2013). The activity reads as follows:

Category 7: Inorganic Chemicals Industry, **Subcategory 7.3**: Production of Chemical Fertilizer.

Water Use Licence Application

A Water Use Licence (WUL) is sought in terms of section 41 of the NWA for activities listed in section 21 of the NWA. The water uses read as follows:

Section 21(a): Taking water from a water resource.

Section 21(b): Storing water.

Section 21(g): Disposing of waste in a manner which may detrimentally impact on a water resource.

Waste Management

In addition to the above Hi-Fos need to comply with the Norms and Standards, GNR 926 (29 November 2013) issued in term of the NEM:WA. The GNR 926 provides minimum standards for the design and operation of new and existing waste storage facilities, without the need to undertake an EA process. The activities read as follows:

Category C (Norms and Standards in terms of GNR 926 (29 November 2013)):

Activity 5(1): The 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 general waste in lagoons or temporary storage of such waste.

Activity 5(2): The storage of hazardous waste at a facility that has the capacity to store in excess of 80m^3 of hazardous waste at any one time, excluding the storage of hazardous waste in lagoons or temporary storage of such waste.

Who are the Decision-making Authorities

The delegated lead authorities responsible for administering and implementation of the relevant legislation are:

1. The Mpumalanga Department of Agriculture, Rural Development, Land and Environmental Affairs (DARDLEA) – delegated lead authority for authorisation of the application for EA for activities listed in terms of GNR 983 and 984 (4 December 2014);
2. Gert Sibande District Municipality - delegated lead authority for the authorisation the AEL for activities identified in terms of GNR 839 (22 November 2013); and
3. The Department of Water and Sanitation (DWS) – delegated lead authority for the authorisation of a WUL.

LOCATION

The proposed Phosphoric Acid Plant site (the site) is located off R23 approximately 27km from Standerton on Portion 4 of the farm Holfontein 399 (S 26° 52‘ 11.25” E 29° 01‘ 51.79”) in the Mpumalanga Province. The proposed site falls within the jurisdiction of the Lekwa Local Municipality, which forms part of the greater Gert Sibande Municipality.

Although Portion 4 of the farm Holfontein 399 is currently zoned as agricultural, a historical brickwork (constructed in 1964, decommissioned in 1999), farm houses, a community settlement and other farming structures exist.

DESCRIPTION OF THE PROPOSED ACTIVITIES

Existing Factory

Sonskyn supplies liquid and blended solid fertilizers to farms in the area of Standerton Mpumalanga. In this regard, Sonskyn purchase raw materials from suppliers throughout Southern Africa to produce the liquid fertilizer.

The solid raw materials currently used are potassium chloride, urea, mono-ammonium phosphate (MAP 33), limestone ammonium nitrate (LAN) and zinc sulphate. Liquid raw materials used are phosphoric acid and ammonium nitrate solution. These materials are presently dissolved in water and filtered to produce the liquid fertilizer formulations.

In addition, raw material in the form of solid granules are blended in a scroll mixer to give solid granular fertilizer formulations.

Objective and Description of the Project

The objective of the proposed Phosphoric Acid Plant is to construct and operate the following:

- Phosphoric Acid Plant.
- CNX Plant.
- MAP 39 Plant.
- MAP 33 Plant.

and to move the Granular Fertilizer Blending Plant from Sonskyn in Standerton to the proposed Phosphoric Acid Plant site (Portion 4 of the farm Holfontein 399 (the site)).

One of the raw materials used by Sonskyn, phosphoric acid, is becoming increasingly difficult to procure. Accordingly, Hi-Fos is investigating the construction and operation of a Phosphoric Acid Plant and auxiliary plants to manufacture phosphoric acid, CNX, MAP 39 and MAP 33 for their own use and for sales.

For more information related to the proposed Phosphoric Acid Plant please refer to section 5 of the Draft Scoping Report.

PROCESS TO BE FOLLOWED

The S&EIR process as detailed in the Environmental Impact Assessment (EIA) Regulations (GNR 892 (4 December 2014)) and depicted in Figure 4 below entails in summary the following:

- public participation process as described in chapter 6;
- compilation of a Scoping Report in accordance with regulation 22(b);
- compilation of an Environmental Impact Assessment Report (EIAR) in accordance with regulation 23(3);
- undertaking of specialist studies reports in accordance with regulation 23(5); and
- the compilation of an Environmental Management Programme (EMPr) in accordance with regulation 23(4).

For more information related to the process being followed please refer to section 4 of the Draft Scoping Report.

SCOPING PHASE

Scoping is the process for determining issues and concerns related to the project and involves consultation with the stakeholders and authorities. In addition, the Scoping phase includes the identification of required specialist studies and potential environmental aspects for further investigation. The Scoping phase outlines the plan for EIA phase and facilitates the input from stakeholders and

authorities to inform the EIA process. For more information related to the plan of study for the EIA phase please refer to section 11 of the Draft Scoping Report.

POTENTIAL IMPACTS

Through the Scoping phase and public participation process potential impacts have been identified and will be further explored as part of the EIA phase. For a high level overview of potential impacts please refer to section 8 of the Draft Scoping Report.

DRAFT SCOPING REPORT REVIEW

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WAY FORWARD

The Final Scoping Report will be submitted to the delegated lead authorities responsible for authorising this project, in this case the DARDLEA, who will consider the findings in consultation with various other authorities and issue a decision to proceed onto the next phase, that being the EIA phase.

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The proponent, Hi-Fos (Pty) Ltd (Hi-Fos), propose to construct and operate the following:

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3. A Water Use License Application (WULA) in terms of section 21 of the National Water Act (No. 36 of 1998) (NWA).

In addition to the above, Hi-Fos need to comply with the Norms and Standards, Government Notice Regulation (GNR) 926 (29 November 2013) issued in term of the National Environmental Management: Waste Act (No. 59 of 2008) (NEM:WA), that provides minimum standards for the design and operation of new and existing waste storage facilities, without the need to undertake an EA process.

1.1 Overview of the Applications Being Made

1.1.1 Environmental Authorisation

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but excluding –

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1.1.2 Atmospheric Emissions Licence Application

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3. The Department of Water and Sanitation (DWS) – delegated lead authority for the authorisation of a WUL.

1.3 Who is the Proponent?

Sonskyn Kunsmis (Pty) Ltd (Sonskyn) supply liquid fertilizers to farms in the area of Standerton Mpumalanga. In this regard, Sonskyn purchase raw materials from suppliers throughout Southern Africa to produce the liquid fertilizer. One of the raw materials is phosphoric acid, which is becoming increasingly difficult to procure. Thus, Hi-Fos are investigating the construction and operation of a Phosphoric Acid Plant. Hi-Fos will supply phosphoric acid to Sonskyn in addition to supplying fertilizers to farms in the area of Standerton Mpumalanga.

1.3.1 Location

The proposed Phosphoric Acid Plant site (the site) is located off R23 approximately 27km from Standerton on Portion 4 of the farm Holfontein 399 (S 26° 52‘ 11.25” E 29° 01‘ 51.79”) in the Mpumalanga Province. The proposed site falls within the jurisdiction of the Lekwa Local Municipality, which forms part of the greater Gert Sibande Municipality. The location of proposed site is illustrated in Figure 1. Portion 4 of the farm Holfontein 399 surveyor general code is T0IS00000000039900004.

Figure 1: Map indicating the location of the proposed Phosphoric Acid Plant site

Although Portion 4 of the farm Holfontein 399 is currently zoned as agricultural, a historical brickwork (constructed in 1964, decommissioned in 1999), farm houses, a community settlement and other farming structures exist (Figure 2).

Figure 2: Photographs of the proposed Phosphoric Acid Plant site

1.4 Who is the Environmental Assessment Practitioner?

In terms of the Environmental Impact Assessment (EIA) Regulations (GNR 892 (4 December 2014)), Hi-Fos has appointed Terra Pacis Environmental (Pty) Ltd (Terra Pacis) as the independent Environmental Assessment Practitioner (EAP).

As the EAP, Terra Pacis has no vested interest in the project, and their appointment does not place any obligation on the EAP to recommend the approval of the proposed Phosphoric Acid Plant. In providing the services, Terra Pacis shall exercise the degree of skill, care and diligence normally exercised by EAPs in similar circumstances. Terra Pacis reserves the right to recommend changes to a development, should this be considered necessary in order to fulfil reasonable environmental protection.

1.4.1 Background Information

Terra Pacis provides environmental consulting and project management services. While our primary focus is in South Africa, we are also active in Zambia and Tanzania. We have provided expertise and undertaken projects for both the public and private sectors. Our aim is to provide a one-stop environmental service to clients, thereby, complementing their product, services and processes.

Terra Pacis provides comprehensive integrated environmental management services. Since its establishment 2005, Terra Pacis has provided expertise and undertaken a variety of projects ranging from those of a strategic nature to site-specific projects, including the obtaining of all relevant environmental permits and authorisations. This range of environmental management experience has enabled Terra Pacis to provide key inputs into small and large development initiatives.

For further information related to Terra Pacis please visit Terra Pacis' website at www.terrapacis.co.za.

1.4.2 B-BBEE Status

Terra Pacis holds a B-BBEE status of "Level Four Contributor" and have 100% procurement recognition.

1.4.3 Mission Statement

Terra Pacis is committed to working with business, government and the community to promote environmental management, conservation and sustainable development through responsible custodianship. By implementing this Terra Pacis strives to obtain a balance, make a difference and raise awareness.

1.4.4 Company Ethos

Terra Pacis understand the need for objective, impartial, independent and practical advice from all professional team members. The journey with Terra Pacis entails a transparent process with our clients based on factual information, commercial awareness and proactive intervention if and when required.

Terra Pacis is committed to:

- Building trust with our clients and the staff who deliver our services.
- Supporting and sharing of knowledge in order to optimise our product and output.
- Offering quality in all aspects of our service.
- A “hands-on” approach.
- Taking ownership and responsibility.
- Encouraging pride in our company, our work and our clients and demonstrate our passion for constant improvement.

Values:

- Honesty and Trust.
- Commitment, Pride and Passion.
- Accountability.
- Growth and Development.
- Sustainability.

Terra Pacis believes that through achieving a balance between environmental conservation and sustainable development, environmental integrity can be achieved and biological diversity restored, preserved and ultimately perpetuated.

1.4.5 Professional Affiliations and Registrations

- IAP2 - International Association for Public Participation.
- IAIAsa - International Association for Impact Assessment (South Africa).
- IWMSA - The Institute of Waste Management of Southern Africa.
- IEMA - The Institute of Environmental Management and Assessment (In progress).

1.4.6 Project Team

We have provided a short summary of the qualifications and experience of our team members below. Curriculum vitae are attached in Appendix B.

Paula Tolksdorff (BTech: Engineering Civil Urban, National Higher Diploma: Civil Engineering and National Diploma)

Paula Tolksdorff, a Civil Engineering Technologist, has over 15 years experience in management of the civil and environmental components in the mining, civil and industrial sectors. In addition to this, she has more than ten years experience in the environmental field and is in the process of acquiring her MSc in Environmental Management from the North West University, Potchefstroom. Her experience includes project management and compilation of S&EIRs, Water Use License applications, the design, construction and implementation of water balances, contaminated and

uncontaminated water drainage analysis, implementation of Environmental Management Systems aligned to ISO14001, and undertaking mine Environmental Management Programme reports. Paula is Managing Director of Terra Pacis.

Nicoletta Maraschin (Msc Geography)

Nicoletta Maraschin graduated from the University of the Witwatersrand with an Msc in Geography in 2016. Nicoletta is currently a Junior Environmental Consultant at Terra Pacis. Nicoletta's roles and responsibilities include compilation of Basic Assessment reports and S&EIRs

Tim Knights (BSc Hons, Chemical Engineering)

Tim Knights is a graduate Chemical Engineer with 48 years experience in the Chemical Process Industry, with 20 years in environmental technology and management in a very broad spectrum of studies in industrial developments. He has a great depth of experience in commissioning, investigations and production in petroleum refining, chlor-alkali fertiliser, explosives, iron and steel and acetylene chemicals plants.

Nicolette von Reiche (BEng Hons., Tribology, Advanced Fluid Mechanics, Advanced Heat Transfer, Numerical Thermo-flow)

Nicolette von Reiche has over ten years of experience in air quality and noise impact assessment and management. She is currently employed as a principal consultant by Airshed Planning Professionals (Pty) Ltd and involved in the compilation of emission inventories, air pollution mitigation and management plans, atmospheric dispersion simulation and air pollution impact assessments as well as licensing applications.

Jaco van der Walt (BA [Masters] Archaeology)

Jaco van der Walt from Heritage Contracts and Archaeological Consulting CC has been actively involved as a professional archaeologist within the heritage management field in southern Africa for the past 15 years. Jaco acted as council member for the Association of Southern African Professional Archaeologists (ASAPA Member #159) in the Cultural Resource Management (CRM) portfolio for two years (2011 – 2012). Jaco was also a Research Associate with the University of Johannesburg from 2011 – 2013. He is well respected in his field and published in peer reviewed journals and presented his findings on various national and international conferences.

2. DRAFT SCOPING REPORT STRUCTURE

2.1 Structure of the Draft Scoping Report

The structure of this Draft Scoping Report is as follows:

Section 1: Introduction
Section 2: Draft Scoping Report Structure
Section 3: Regulatory Context
Section 4: Process to be Followed
Section 5: Description of the Proposed Activities
Section 6: Need and Desirability
Section 7: Receiving Environment
Section 8: Potential Environmental Impacts
Section 9: Public Participation Process
Section 10: Analysis of Stakeholders
Section 11: Plan of Study for the Environmental Impact Assessment Phase
Section 12: Undertaking or Affirmation by the Environmental Assessment Practitioner
Section 13: Way Forward

2.2 Content of the Draft Scoping Report

The content of the Draft Scoping Report should comply, in terms of content, with regulation 22(b) of the EIA Regulations. In Table 1 the requirements as set out in EIA Regulations Appendix 2, are correlated with the sections in this report.

Table 1: Content of the Draft Scoping Report

Requirements in terms of the EIA Regulations		Section in this report
Appendix 2(2)(a)	Details of- (i) the EAP who prepared the report; and (ii) the expertise of the EAP, including a curriculum vitae;	Section 1.4
Appendix 2(2)(b)	The location of the activity, including- (i) the 21 digit Surveyor General code of each cadastral land parcel; (ii) where available, the physical address and farm name; (iii) where the required information in items (i) and (ii) is not available, the coordinates of the boundary of the property or properties;	Section 1.3.1
Appendix 2(2)(c)	A plan which locates the proposed activity or activities applied for at an appropriate scale, or, if 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 1.3.1 and Section 5.1
Appendix 2(2)(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 3 and Section 5.1
Appendix 2(2)(e)	A description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines,	Section 3

Requirements in terms of the EIA Regulations		Section in this report
	spatial tools, municipal development plant frameworks and instruments that are applicable to this activity and are to be considered in the assessment process.	
Appendix 2(2)(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 6
Appendix 2(2)(h)	A full description of the process followed to reach the proposed activity, site and location within the site, including- (i) details of all 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 identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts- aa) can be revered; bb) may cause irreplaceable loss of resources; and cc) can be avoided, managed or mitigated; (vi) the methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives; (vii) 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; (viii) the possible mitigation measures that could be applied and level of residual risk; (ix) the outcome of the site selection matrix; (x) if no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such and (xi) a concluding statement indicating the preferred alternatives, including the preferred location of the activity;	Section 5.2; Section 9; Section 11; Section 7 and Section 8
Appendix 2(2)(i)	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 a description of the proposed method of assessing the environmental aspects including aspects to be assessed by specialists; (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; and (viii) a description of the tasks that will be undertaken as	Section 12

Requirements in terms of the EIA Regulations		Section in this report
	part of the environmental impact assessment process; (ix) 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.	
Appendix 2(2)(j)	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 13
Appendix 2(2)(k)	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 13
Appendix 2(2)(l)	Where applicable, any specific information required by the competent authority; and	Not applicable at this stage.
Appendix 2(2)(m)	Any other matter required in terms of section 24(4)(a) and (b) of the Act.	Not applicable at this stage.

3. REGULATORY CONTEXT

3.1 The Constitution of the Republic of South Africa (No. 108 of 1996)

Since 1994 South African legislation, including environmental legislation, has undergone a large transformation and various new laws and policies was promulgated with a strong emphasis on environmental concerns and the need for sustainable development. The Constitution of the Republic of South Africa (No. 108 of 1996) (the Constitution), the supreme law in South Africa, contains far reaching clauses relevant to environmental rights.

The environmental rights are guaranteed in section 24 of the Constitution, and states that:

Everyone has the right -

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

Section 24 of the Constitution has implications for all environmental policies and legislation and the implementation thereof. In keeping with this right, "sustainable development" should be strived

towards, which means that biophysical, social and economic considerations should be taken into account (Steyn, 1999[1]).

The Constitution on its own cannot ensure the effective management of the environment and natural resources, thus numerous acts have been promulgated or devised to comply with the requirements contained in the Constitution.

3.2 National Environmental Management Act (No. 107 of 1998)

The NEMA can be regarded as the most important piece of general environmental legislation. It provides a framework for environmental law reform and covers three areas, namely:

- land, planning and development;
- the use and conservation of natural and cultural resources; and
- pollution control and waste management.

The NEMA is based on the concept of sustainable development. The objective of the NEMA is to provide for co-operative environmental governance through a series of principles relating to:

- the procedures for state decision-making on the environment; and
- the institutions of state which make those decisions.

The NEMA principles serve as:

- a general framework for environmental planning;
- guidelines according to which the state must exercise its environmental functions; and
- a guide to the interpretation of the NEMA itself and of any other law relating to the environment.

3.2.1 The National Environmental Management Act Principles

Some of the most important principles contained in the NEMA are that:

- environmental management must put people and their needs first;
- development must be socially, environmentally and economically sustainable;
- there should be equal access to environmental resources, benefits and services to meet basic human needs;
- there should be responsibility for the environmental health and safety consequences of a policy or activity through its lifestyle;
- government should promote public participation when making decisions about the environment;

[1] Steyn, R. 1999. A new era of environmental legislation – forthcoming in Vision. Bowman Gilfillian Inc.

- communities must be given environmental education, where environmental awareness is raised and knowledge is shared;
- workers must be informed of any potential dangers and they have the right to refuse to do work that is harmful to their health or to the environment;
- decisions must be taken in an open and transparent manner and there must be access to information;
- the role of youth and women in environmental management must be recognised and their full participation must be promoted;
- the person or company who causes pollution, environmental degradation and consequent adverse health effects must pay to remedy these problems caused;
- the environment is held in trust by the state for the benefit of all South Africans; and
- the utmost caution should be used when permission for new developments is granted.

3.2.2 Applicability of the National Environmental Management Act

In terms of section 24F of the NEMA, no person may commence an activity listed in terms of sections 24(2)(a) or (b) of the NEMA (listed activity) without an EA issued in terms of the NEMA. GNR 983, 984 and 985 published in terms of the NEMA on 4 December 2014 set out the listed activities that cannot be undertaken without an EA and commenced on 4 December 2014.

GNR 983 identifies those activities for which a basic assessment (BA) must be undertaken in accordance with the procedure set out in GNR 982; GNR 985 identifies those activities for which a S&EIR process must be undertaken in accordance with the procedure set out in GNR 982; and GNR 984 identifies geographical areas in respect of which environmental authorisation must be applied for by undertaking the BA process. It must be noted that GNR 983 and GNR 985 pertains to those activities which are deemed to have a lesser environmental impact whilst those listed in GNR 984 have a more significant impact on the environment and accordingly, a more detailed and extensive level of assessment is required.

EA in terms of section 24(2) and 24D of the NEMA is required for the following listed activities identified in terms of GNR 983 (4 December 2014):

Activity 24: The development of-

(i) a road for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or
(ii) a road with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 meters;

but excluding –

(a) roads which are identified and included in activity 27 in Listing Notice 2 of 2014;
(b) or roads where the entire road falls within an urban area.

EA in terms of section 24(2) and 24D of the NEMA is required for the following listed activities identified in terms of GNR 984 (4 December 2014):

Activity 4: The development 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 more than 500 cubic metres.

Activity 6: The development of facilities or infrastructure for any process or activity which requires a permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent, excluding-

(i) activities which are identified and included in Listing Notice 1 of 2014;
(ii) activities which are 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 National Environmental Management: Waste Act, 2008 applies; or
(iii) the development of facilities or infrastructure for the treatment of effluent, wastewater or sewage where such facilities have a daily throughput capacity of 2000 cubic metres or less.

An application for an EA will be made to the DARDLEA.

3.3 National Environmental Management: Waste Act (No. 59 of 2008)

On 1 July 2009 the NEM:WA, came into operation. The NEM:WA repealed section 20 of the Environment Conservation Act (No. 73 of 1989) (ECA) and introduced new provisions regarding the licensing of waste management activities.

In terms of the NEM:WA the Minister of the DEA may publish a list of waste management activities that have, or are likely to have, a detrimental effect on the environment. Furthermore, the NEM:WA prohibits any person to commence, undertake or conduct a waste management activity except in accordance with:

- the requirements or standards determined in terms of the NEM:WA for that activity, and
- a waste management licence issued in respect of that activity, if a license is required.

The NEM:WA can be regarded as legislation that governs all waste activities in South Africa. It provides a framework for environmental reform related to waste activities namely:

- protection of health and the environment by providing reasonable measures for the prevention of pollution, ecological degradation and for securing ecologically sustainable developments;
- provision for institutional arrangements and planning matters;
- provision for national norms and standards for regulating the management of waste by all spheres of government;
- provision for specific waste management measures;
- licensing and control of waste management activities;
- remediation of contaminated land;

- provision for the national waste information system; and
- provision for compliance and enforcement.

3.3.1 The Objectives of the National Environmental Management: Waste Act

The objectives of the NEM:WA, in summary, are to:

- protect human health and wellbeing as well as the environment;
- to ensure that people are aware of the impact of waste on their health, wellbeing and the environment;
- to provide for compliance; and
- to give effect to section 24 of the Constitution in order to secure an environment that is not harmful to health and wellbeing.

3.3.2 Applicability of the National Environmental Management: Waste Act

In terms of section 19(1) of the NEM:WA, the Minister, in GNR 921 (29 November 2013), published a list of waste management activities that have, or are likely to have a detrimental effect on the environment. In terms of section 20(b) of the NEM:WA no person my commence, undertake or conduct a waste management activity, except in accordance with a waste management licence issued in respect of that activity, if a licence is required.

GNR 921 (29 November 2013) differentiates between Category A, Category B and Category C waste management activities. Category A waste management activities are those which require the conducting of a BA process as stipulated in the GNR 982 (4 December 2014) as part of the waste management licence application. Category B waste management activities are those that require the conducting of an S&EIR process stipulated in the GNR 982 (4 December 2014) as part of the waste management licence application. Category C waste management activities require that the Norms and Standards for the storage of waste be applied without the need to undertake an EA process. GNR 926 (29 November 2013) listed activities applicable to the proposed Phosphoric Acid Plant were identified as:

Category C (Norms and Standards in terms of GNR 926 (29 November 2013)):

Activity 5(1): The 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 general waste in lagoons or temporary storage of such waste.

Activity 5(2): The storage of hazardous waste at a facility that has the capacity to store in excess of 80m^3 of hazardous waste at any one time, excluding the storage of hazardous waste in lagoons or temporary storage of such waste.

3.4 National Environmental Management: Air Quality Act (No. 39 of 2004)

On 1 April 2010 the NEM:AQA was fully enacted. The NEM:AQA repealed the former Atmospheric Pollution Prevention Act (No. 45 of 1965) and all its amendment acts in full.

The NEM:AQA allows for national, provincial and local air quality standards to be established as well as the declaration of priority areas. In addition, the NEM:AQA requires that Air Quality Management Plan (AQMP) form part of the environmental implementation plan or environmental management plans to be prepared by national departments or the Province as required by Chapter 3 of the NEMA. Furthermore the NEM:AQA requires municipalities to include an AQMP into its integrated development plan (IDP).

The NEM:AQA requires the Minister of the DEA to publish a list of activities which results in atmospheric emissions which may have a detrimental effect on the environment, including health, social conditions, economic conditions, ecological conditions or cultural heritage. The NEM:AQA requires that an AEL be obtained for such listed activities. Such a list of activities was published in GNR 839 (22 November 2013) promulgated in terms of section (21)(i)(b) of the NEM:AQA.

3.4.1 The Objectives of the National Environmental Management: Air Quality Act

The objectives of the NEM:AQA can be summarised as follows:

- protection of the environment by providing reasonable measures for the protection of the quality of the air in the country;
- protection of the environment by the prevention of air pollution and ecological degradation;
- protecting the environment by securing ecologically sustainable development while promoting justifiable economic and social development; and
- 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 wellbeing of people.

3.4.2 Applicability of the National Environmental Management: Air Quality Act

Section 22 of the NEM:AQA states that "*no person may without a provisional atmospheric emission licence or an atmospheric emission licence conduct an activity listed on the national list anywhere in the Republic; or listed on the list applicable in a province anywhere in that province*".

GNR 839 of 22 November 2013 provides the list of activities resulting in atmospheric emissions which have or may have a significant detrimental effect on, *inter alia*, the environment and the Minimum Emission Standards (MES) for these activities as contemplated in section 21 of the NEM:AQA. The scheduled process, in terms of these regulations, applicable to the proposed Phosphoric Acid Plant was identified as:

Category 7: Inorganic Chemicals Industry, **Subcategory 7.3**: Production of Chemical Fertilizer.

An application for an AEL will be made to the Gert Sibande District Municipality.

3.4.3 Declared Priority Area

The site is located approximately 27km from Standerton located within the Lekwa Local Municipality. This area forms part of the declared Highveld Priority Area (HPA), declared in terms

of section 18(1) of the NEM:AQA during 2007. Figure 3 was taken from the Air Quality Management Plan for the Highveld Priority Area[2] and comprises a locality map indicating the extent of the HPA, which covers 31 106km^2, which includes parts of Gauteng and Mpumalanga Provinces. The Highveld area in South Africa is associated with poor air quality with elevated concentrations of criteria pollutants occurring as a result of the high concentration of industrial and non-industrial sources.

[2] Zunckel, Naiker, Raghunandan, Fischer, Crouse, Ebrahim, Carter. 2010. Air Quality Management Plan for the Highveld Priority Area.

Figure 3: Locality map indicating the extent of the Highveld Priority Area

3.5 National Water Act (No. 36 of 1998)

In terms of the NWA, the national government, acting through the Minister of the DEA, is the public trustee of South Africa's water resources, and must ensure that water is protected, used, developed, conserved, managed and controlled in a sustainable and equitable manner for the benefit of all persons. The Minister of the DEA is responsible to ensure that water is allocated equitably and used beneficially in the public interest, while promoting environmental values. The national government, acting through the Minister of the DEA, has the power to regulate the use, flow and control of all water in South Africa.

The majority of the provisions of the NWA came into effect on 1 October 1998 and at the same time various provisions of the Water Act (No. 54 of 1956) (WA) were repealed. The remaining provisions of the NWA commenced on 1st January 1999 and 1 October 1999 (and the remaining provisions of the WA were repealed).

The most fundamental departure from the WA is the removal of the concept of water as private property. Instead, water will be made available through user licences, which may be issued for a maximum period of forty years, subject to renewal. A priority of users has been established for the allocation of licences, with the environment near the top of the list of priorities.

Section 21 of the NWA indicates that "water use includes":

- taking water from a water resource;
- storing water;
- impeding or diverting the flow of water in a water course;
- engaging in a stream flow reduction activity contemplated in section 36;
- engaging in a controlled activity which has either been declared as such or is identified in section 37(1);
- discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit;
- disposing of waste in a manner which may detrimentally impact a water resource;
- disposing in any manner of water which contains waste from, or which has been heated in, any industrial or power generation process;
- altering the bed, banks, course or characteristics of a water course;
- removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people; and
- using water for recreational purposes.

3.5.1 Applicability of the National Water Act

In terms of section 22 of the NWA, no person may undertake a water use as set out in section 21 of the NWA (water use) without a WUL issued in terms of the NWA unless –

- such water use falls within the ambit of a water use as set out in schedule 1 to the NWA, which pertains to the use of water for, *inter alia*, domestic use or small gardening;

- such water use falls within the ambit of an existing lawful water use in terms of section 34 of the NWA, which pertains to a water use which has taken place at any time during a period of two years prior to the commencement of the NWA, being 1 October 1998;
- such water use falls within the ambit of a general authorisation issued in terms of section 39 of the NWA (General Authorisation); or
- the Minister of DWS has dispensed with the requirement for a WUL in terms of section 22(3) of the NWA.

A WUL is sought in terms of section 41 of the NWA for activities listed in section 21 of the NWA. The water uses read as follows:

Section 21(a): Taking water from a water resource.

Section 21(b): Storing of water.

Section 21(g): Disposing of waste in a manner, which may detrimentally impact on a water resource.

An application for a WUL will be made to the DWS.

3.6 National Heritage Resources Act (No. 25 of 1999)

In terms of section 38 of the National Heritage Resources Act (No. 25 of 1999) (NHRA) the following developments require a Phase 1 Archaeological Impact Assessment prior to proceeding with construction:

- Any development or other activity which will change the character of a site:
  - exceeding 5 000m^2 in extent; or
  - involving three or more existing erven or subdivisions thereof; or
  - involving three or more erven or divisions thereof which have been consolidated within the past five years; or
  - the costs of which will exceed a sum set in terms of regulations by South African Heritage Resource Agency (SAHRA) or a provincial heritage resources authority;
  - the re-zoning of a site exceeding 10 000m^2 in extent; or
  - any other category of development provided for in regulations by the SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

3.6.1 Applicability of the National Heritage Resources Act

The proposed Phosphoric Acid Plant will exceeding 5 000m^2 in extent and change the character of the site. For this reason, a Phase 1 Archaeological Impact Assessment will be required for the proposed Phosphoric Acid Plant.

3.7 Occupational Health and Safety Act (No. 85 of 1993)

The Occupational Health and Safety Act (No. 85 of 1993) (OHSA) makes provisions that address the health and safety of persons working at the site. The OHSA addresses amongst others the:

- safety requirements for the operation of plant machinery;
- protection of persons other than persons at work against hazards to health and safety, arising out of or in connection with the activities of persons at work;
- establishment of an advisory council for occupational health and safety; and
- provision for matters connected therewith.

3.7.1 Applicability of the Occupational Health and Safety Act

The OHSA is applicable and states that any person:

- undertaking work on any premises shall ensure as far as is reasonably practicable that nothing about the manner in which the work is conducted makes it unsafe or creates a risk to health; and
- undertaking upgrades or developments for use at work or on any premises shall ensure as far as is reasonably practicable that nothing about the manner in which it is erected or installed makes it unsafe or creates a risk to health when properly used.

Thus, the OHSA is applicable to the proposed Phosphoric Acid Plant.

3.8 Other Guidelines

The following guidelines were considered when drafting this report:

- GNR 805 (10 October 2012) Guideline on the Implementation of the Environmental Impact Assessment Regulations.
- GNR 807 (10 October 2012) Public Participation in the Environmental Impact Assessment Process.
- GNR 891 (20 October 2014) Guideline on Need and Desirability.
- Mpumalanga State of the Environment Report 2003.
- Gert Sibande District Municipality Integrated Development Plan 2016-2017.
- Gert Sibande District Municipality Spatial Development Framework 2014.
- Lekwa Local Municipality Integrated Development Plan 2016-2017.

4. PROCESS TO BE FOLLOWED

The S&EIR process as detailed in the EIA Regulations and depicted in Figure 4 below entails in summary the following:

- public participation process as described in chapter 6;

- compilation of a Scoping Report in accordance with regulation 22(b);
- compilation of an Environmental Impact Assessment Report (EIAR) in accordance with regulation 23(3);
- undertaking of specialist studies reports in accordance with regulation 23(5); and
- the compilation of an Environmental Management Programme (EMPr) in accordance with regulation 23(4).

4.1 Public Participation Initiation Phase

During this phase public participation activities commence. This includes the compilation of necessary background information documents (BIDs), advertisements, site notices, and notification letters. During this phase the registered interested and affected parties (I&APs) (stakeholders) details will be captured into a stakeholder database and the comments raised captured in a Comment Response Report.

4.2 Scoping Phase

Scoping is the process for determining issues and concerns related to the project and involves consultation with the stakeholders and authorities. In addition, the Scoping phase includes the identification of required specialist studies and potential environmental aspects for further investigation. The Scoping phase outlines the plan for EIA phase and facilitates the input from stakeholders and authorities to inform the EIA process. In addition, the Scoping Report will:

- Include details of the EAP responsible for preparing the report and the expertise of the EAP to carry out the scoping procedures.
- Identify all legislation and guidelines that have been considered in the preparation of the Scoping Report.
- Describe the existing and proposed activities and reasonable alternatives, including the advantages and disadvantages of the alternatives.
- Describe the property on which the activities are to take place.
- Describe the need and desirability of the activities.
- Describe the environment (at a screening level) that may be affected by the activities and the manner in which the physical, biological, social, economic and cultural aspects of the environment may be affected by the activities.
- Describe the environmental issues and potential impacts, including cumulative impacts that have been identified.
- Indicate the methodology that will be adopted in assessing the potential impacts that have been identified, including any specialist studies or specialised processes that will be undertaken.
- Detail the public participation initiation phase for the S&EIR process in terms of chapter 6 of the EIA Regulations.
- Include a plan of study for the EIA which sets out the proposed approach to the EIA phase.
- An undertaking under oath or affirmation by the EAP.

4.2.1 Stakeholder Review prior to Submission

The Draft Scoping Report will be made available to stakeholders and authorities for review, prior to finalisation and submission of the report for review by the DARDLEA. All stakeholders and authorities will be allocated 30 days to review the Draft Scoping Report before the Final Scoping Report (incorporating comments received during the review period) is submitted to the DARDLEA for review.

4.2.2 Submission and Decision-making

The DARDLEA will be allocated 43 days to review the Final Scoping Report. If the DARDLEA accepts the final scoping report within 43 days, such may be with or without conditions and will advise the applicant to proceed or continue with a task contemplated within the plan of study for EIA. However, the DARDLEA may, at this point, refuse EA.

4.3 Environmental Impact Assessment Phase

The objective of the EIA phase is to determine the policy and legislative context within which the activity is located and to describe the need and desirability of the proposed activity in the context of the preferred location. The impacts and risks need to be determined through an assessment process, which is inclusive of cumulative impacts. The nature, significance and consequence of the impacts will be determined and the degree to which they can be reversed and may cause irreplaceable loss of resources. The assessment process must identify suitable measures to avoid, manage or mitigate identified impacts and identify the residual risks that need to be managed and monitored. The compilation of an EIA is in accordance with regulation 23(3) in the EIA Regulations.

The EIAR will include:

- Details of the EAP who prepared the report and the expertise of the EAP to carry out the S&EIR process.
- A detailed description of the existing and proposed activities.
- A description and a map of the property on which the activities are undertaken and the location of the activities on the property.
- A description of the environment that may be affected by the activities and the manner in which the geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by such.
- Details of the public participation process conducted, including:
    - steps undertaken in accordance with the plan of study;
    - lists of persons, organisations and organs of state that were registered as I&APs (stakeholders);
    - a summary of comments received, issues raised by stakeholders, the date of receipt of these comments and the response of the EAP to those comments; and
    - copies of any representation and comments received from stakeholders.
- A description of the need and desirability of the activities.

- A description of any identified alternatives that are feasible and reasonable, including the advantages and disadvantages that the activities or alternatives will have on the environment and on the community that may be affected by the activities.
- A summary of the methodology used in determining the significance of potential impacts.
- A description and comparative assessment of all alternatives identified during the S&EIR process.
- A summary of the findings of the specialist studies.
- A description of all environmental issues that were identified during the S&EIR process, and assessment of significance of each issue and an indication of the extent to which the issue could be addressed by the adoption of mitigation measures.
- A description and assessment of the significance of any environmental impacts, including:
    - cumulative impacts that may occur as a result of the undertaking of the activities or identified alternatives or as a result of any construction, erection or decommissioning associated with the undertaking of the activities;
    - the nature of the impact;
    - the extent and duration of the impact;
    - the probability of the impact occurring;
    - the degree to which the impact can be reversed;
    - the degree to which the impact may cause irreplaceable loss of resources; and
    - the degree to which the impact can be mitigated.
- A description of any assumptions, uncertainties and gaps in knowledge.
- A reasoned opinion as to whether the activities should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be made in respect of that authorisation.
- An environmental impact statement containing the key findings and a comparative assessment of the positive and negative implications of the activities.
- A EMPr containing the aspects contemplated in regulation 23(4) of the EIA Regulations.
- Copies of all specialist reports complying with regulation 23(5) of the EIA Regulations.
- Any specific information required by the competent authority and any other matters required in terms of section 24(4)(a) and (b) of the NEMA.
- An undertaking under oath or affirmation by the EAP in relation to:
    - the correctness of the information provided in the reports;
    - stakeholders and I&APs comments and inputs must be included;
    - the inclusion of inputs and recommendations from specialist reports where relevant; and
    - any information provided by the EAP to I&APs and any responses by the EAP to comments or inputs made by I&APs.

4.3.1 Specialist Studies

The following specialist studies have been identified thus far:

- Technical Review.

- Noise Impact Assessment.
- Air Quality Assessment.
- Phase 1 Archaeological Impact Assessment.

4.3.2 Environmental Management Programme

The EMPr will contain the following information:

- Information on any proposed management or mitigation measures that will be taken to address the environmental impacts that have been identified in a report contemplated by the EIA Regulations, including environmental impacts or objectives in respect of:
  - planning and design;
  - pre-construction and construction activities;
  - operation or undertaking of the activities;
  - rehabilitation of the environment; and
  - closure, where relevant.
- A detailed description of the aspects of the activities that are covered by the EMPr.
- An identification of the persons who will be responsible for the implementation of the measures.
- Proposed mechanisms for monitoring compliance with and performance assessment against the EMPr and reporting thereon.
- As far as is reasonably practicable, measures to rehabilitate the environment affected by the undertaking of any listed activity or specified activity to its natural or predetermined state or to a land use which conforms to the generally accepted principle of sustainable development, including, where appropriate, concurrent or progressive rehabilitation measures.
- A description of the manner in which it intends to:
  - modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation;
  - remedy the cause of pollution or degradation and migration of pollutants;
  - comply with any applicable provisions of the NEMA regarding closure, where applicable; and
  - comply with any provisions of the NEMA regarding financial provisions for rehabilitation, where applicable.
- Time periods within which the measures contemplated in the EMPr must be implemented.
- The process for managing any environmental damage, pollution, pumping and treatment of extraneous water or ecological degradation as a result of undertaking a listed activity.
- An environmental awareness plan describing the manner in which:
  - the proponent intends to inform his or her employees of any environmental risk which may result from their work; and
  - risks must be dealt with in order to avoid pollution or the degradation of the environment.
- Where appropriate, closure plans, including closure objectives.

4.3.3 Stakeholder Review prior to Submission

All stakeholders and authorities will be allocated 30 days to review the Draft EIAR before the Final EIAR is submitted to the DARDLEA for review.

4.3.4 Submission and Decision-making

The DARDLEA must within 107 days of receipt of the Final EIAR and EMPr in writing grant EA in respect of all or part of the activity applied for; or refuse EA. On having reached a decision, the DARDLEA must, in writing and within five days:

- provide the applicant with the decision;
- give reasons for the decision to the applicant; and
- where applicable, draw the attention of the applicant to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations (GNR 993 (8 December 2014)), if such appeal is available in the circumstances of the decision.

The applicant must, in writing, within fourteen days of the date of the decision on the application ensure that:

- all registered I&APs are provided with access to the decision and the reasons for such decision; and
- the attention of all registered I&APs is drawn to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations (GNR 993 (8 December 2014)), if such appeal is available in the circumstances of the decision.

4.4 Atmospheric Emission Licence Application Process

The AEL application in terms of section 37 of the NEM:AQA will be submitted to the Gert Sibande District Municipality and will include the technical information obtained from the Technical Review and Air Quality Impact Assessment. Kindly note that there are no legislated decision-making timeframes in terms of the NEM:AQA however 60 days is typical.

4.5 Water Use Licence Application Process

A WUL will be sought from the DWS in terms of section 41 of the NWA for activities listed in section 21 of the NWA. The compilation and submission of the WUL application forms will be as per the guidelines provided by the Department of Water and Sanitation (DWS). Kindly note that there are no legislated decision-making timeframes in terms of the NWA.

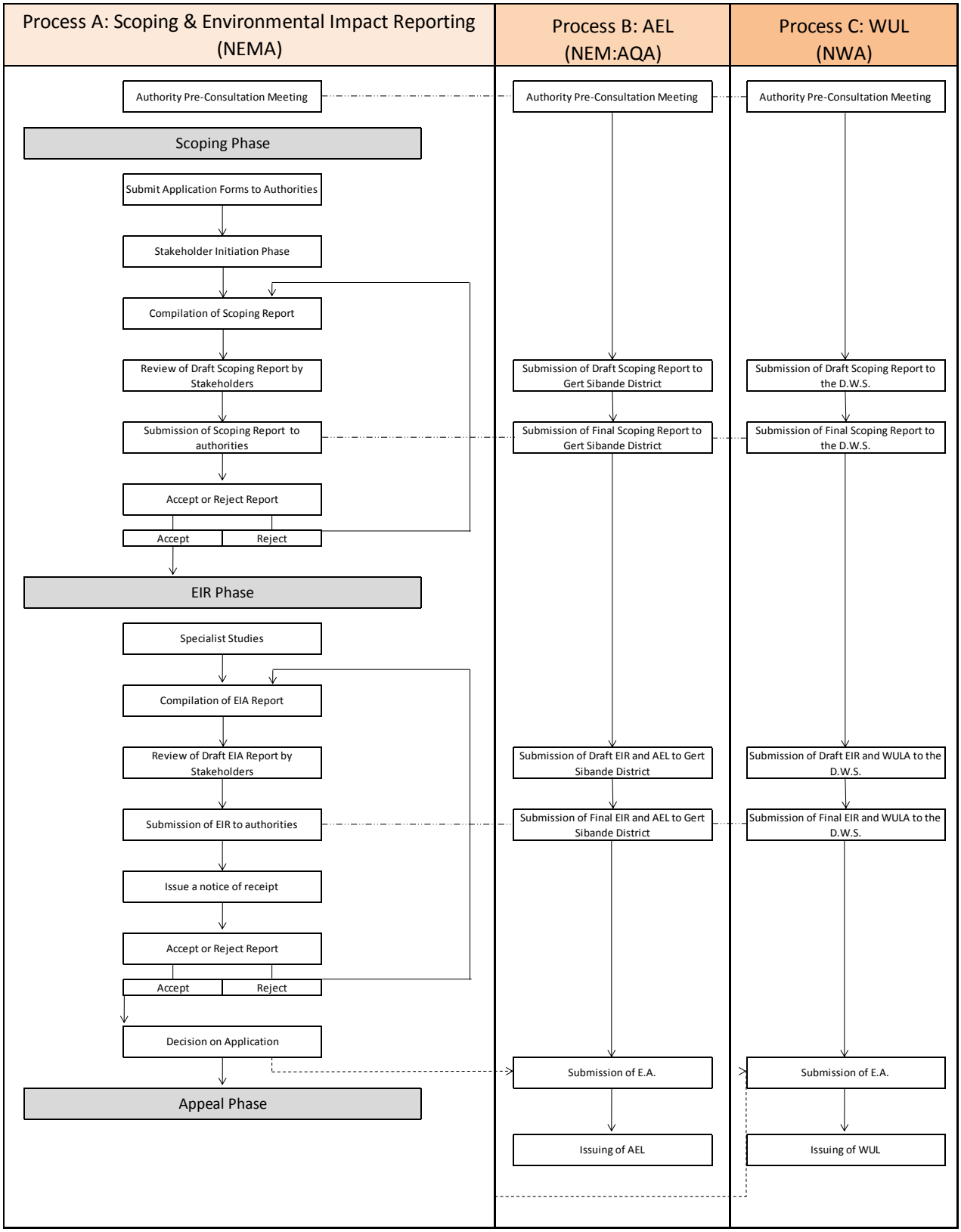

Figure 4: The Scoping and Environmental Impact Report Process

5. DESCRIPTION OF THE PROPOSED ACTIVITIES

5.1 Activities to be Undertaken

5.1.1 Existing Factory

Sonskyn supplies liquid and blended solid fertilizers to farms in the area of Standerton Mpumalanga. In this regard, Sonskyn purchase raw materials from suppliers throughout Southern Africa to produce the liquid fertilizer.

The solid raw materials currently used are potassium chloride, urea, mono-ammonium phosphate (MAP 33), limestone ammonium nitrate (LAN) and zinc sulphate. Liquid raw materials used are phosphoric acid and ammonium nitrate solution. These materials are presently dissolved in water and filtered to produce the liquid fertilizer formulations.

In addition, raw material in the form of solid granules are blended in a scroll mixer to give solid granular fertilizer formulations.

5.1.2 Objective and Description of the Project

The objective of the proposed Phosphoric Acid Plant is to construct and operate the following:

- Phosphoric Acid Plant.
- Calcium Ammonium Nitrate (CNX) Plant.
- Pure Mono Ammonium Phosphate (MAP 39) Plant.
- Mono Ammonium Phosphate (MAP 33) Plant.

and to move the Granular Fertilizer Blending Plant from Sonskyn in Standerton to the proposed Phosphoric Acid Plant site (Portion 4 of the farm Holfontein 399 (the site)).

One of the raw materials used by Sonskyn, phosphoric acid, is becoming increasingly difficult to procure. Accordingly, Hi-Fos is investigating the construction and operation of a Phosphoric Acid Plant and auxiliary plants to manufacture phosphoric acid, CNX, MAP 39 and MAP 33 for their own use and for sales.

Phosphoric Acid Plant

Trailblazer Technologies (Pty) Ltd (TBT), a chemical engineering design company, approached Hi-Fos with the Nitrophos Process technology in this regard. The proposed Phosphoric Acid Plant would produce phosphoric acid from phosphate rock sourced from Phalaborwa and nitric acid from Sasol. The Phosphoric Acid Plant is illustrated in Figure 5 and described in further detail below.

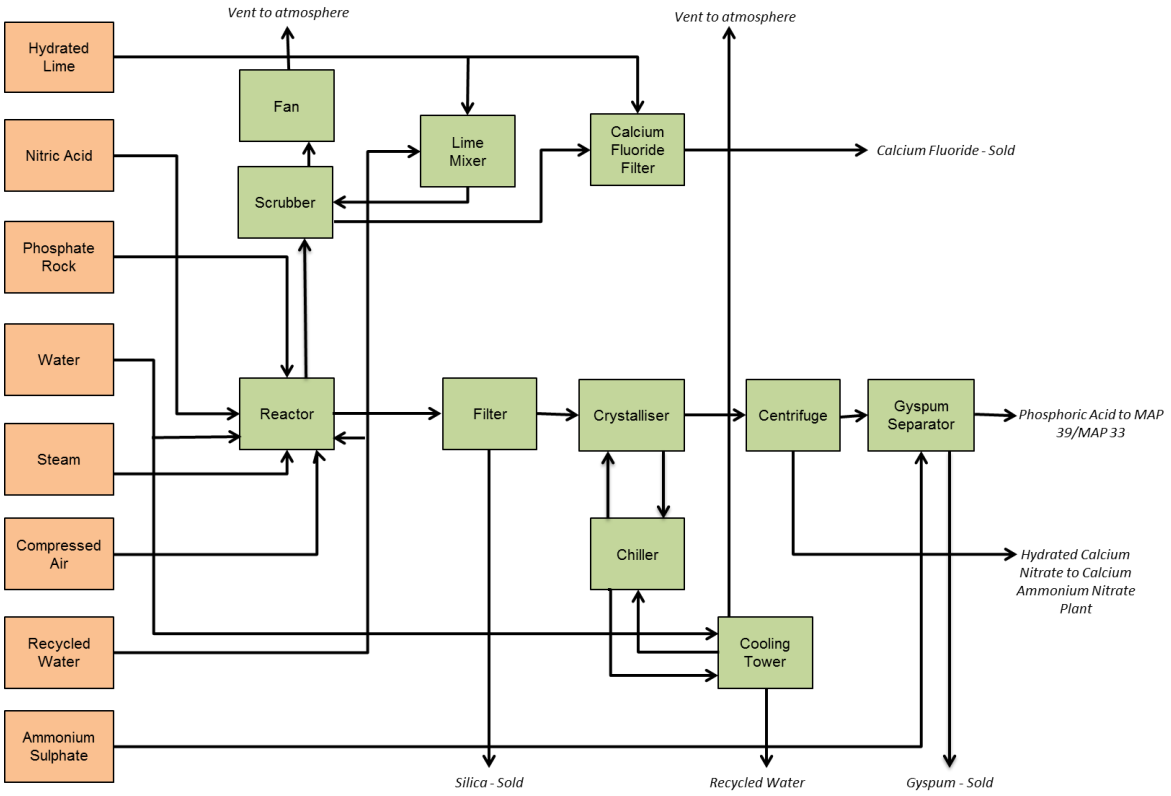

Figure 5: Phosphoric Acid Plant Process

Charging the Reactor

The nitric acid and water are fed to the reactor to dilute the nitric acid from 58% to 52% in situ. The phosphate rock is added to the reactor at the same time.

The Phosphoric Acid Reaction

The mix is heated with live steam injection from the boiler and the phosphate rock powder is dissolved in the nitric acid solution. The mix is aerated by air from the compressor system, The aeration is to remove the hydrofluoric acid (HF) generated from the fluoride in the rock.

The process could also operate in batch mode.

If in continuous mode: The reaction goes to completion in a second reactor and stabilises in a third reactor. The reaction mix is then cooled to 35°C using cooling water through a graphite heat exchanger.

The reactors are continuous stirred tank reactors (CSTR), 20m^3 in capacity manufactured from polypropylene reinforced with glass fibre resin on the outside. They are equipped with an air sparge and steam injection equipment as well as a rubber-lined stainless steel (SS) stirrer.

Scrubber

The off gases from the reactor containing hydrogen fluoride gas (HF) are drawn by a fan into an alkaline scrubber to absorb the HF. In the scrubber the off gases are scrubbed with calcium hydroxide solution.

The scrubber is a void column equipped with sprays throughout its length. It is manufactured of polypropylene. The number of sprays will be determined so that the concentration of HF in the exit stream will be well within the prescribed specification of 5 parts per million (ppm) volume/volume (v/v).

Solid Calcium Fluoride (CaF_2) crystals are formed in the alkaline scrubber by the reaction of the HF with the calcium hydroxide solution.

CaF_2 Filtration

The calcium hydroxide solution is circulated through the scrubber and then passes to the CaF_2 filter. This is a plate and frame filter which removes the CaF_2 crystals.

The insoluble product CaF_2 that is filtered off is bagged for sale as a raw material.

Chiller and Centrifuge

The phosphoric acid reaction products pass to a second stage of cooling to 4°C in the crystalliser. This is achieved by a graphite heat exchanger and a chiller. At this temperature the calcium nitrate with four molecules of water of crystallisation (CN4) crystallizes out.

The CN4 crystals are separated in a decanter centrifuge and are stored for further processing (See CNX and CNL below).

Gypsum Separator

There is residual calcium nitrate remaining in the phosphoric acid leaving the decanter centrifuge. The phosphoric acid with the residual calcium nitrate is passed into a vessel and mixed with the stoichiometric required quantity of ammonium sulphate. The calcium component is removed from the phosphoric acid by precipitation with the use of ammonium sulphate to produce calcium sulphate (gypsum) and ammonium nitrate. The ammonium nitrate remains in solution in the phosphoric acid.

The precipitated gypsum is removed by pumping the phosphoric acid mix to a plate and frame filter. The gypsum is removed as a wet filter cake and sold.

Product Phosphoric Acid

The remaining acidic liquor is the product phosphoric acid containing 12% P at a pH of about 1. The phosphoric acid product is stored for further use.

Calcium Ammonium Nitrate (CNX) Plant

The calcium nitrate (CN4) as produced by the Phosphoric Acid Plant has a low melting point and is difficult to handle. It may have application as a liquid fertiliser (calcium nitrate liquid (CNL)) but will be converted to calcium ammonium phosphate (CNX) in the CNX Plant. CNX has a higher melting point and no significant handling problems. CNX Plant is illustrated in Figure 6 and described in further detail below.

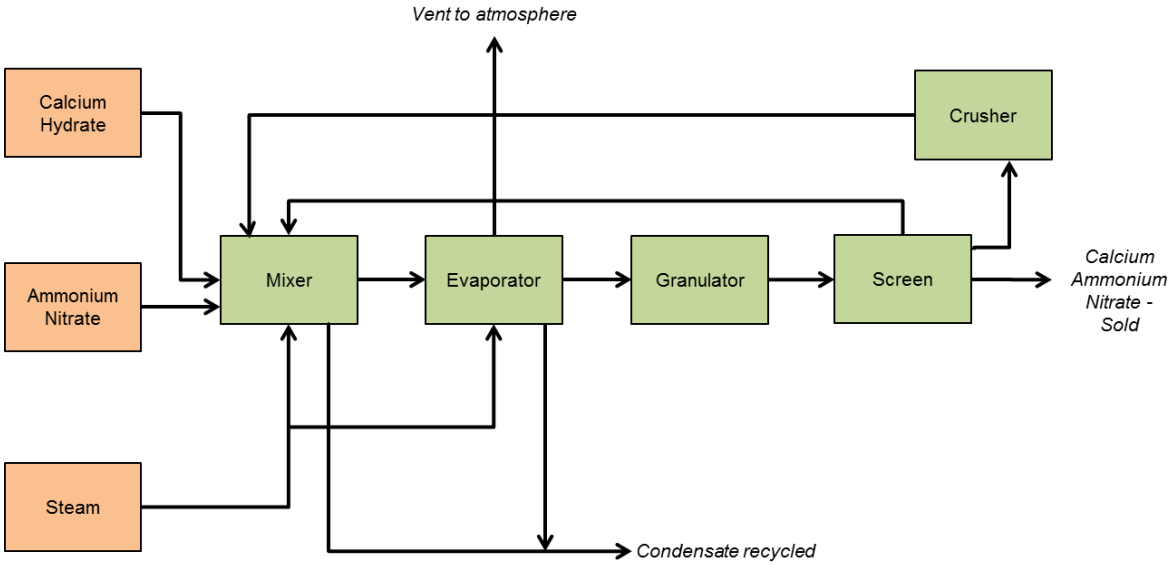

Figure 6: Calcium Ammonium Nitrate (CNX) Plant

CN4 from the Phosphoric Acid Plant contains 30% water because of its water of crystallization. CN4 has a low melting point of <50^{o}C, which will cause handling problems in the market place. The heat of the sun will cause it to solidify. Due to the high water content, higher transport costs will be incurred. CNX contains 15% water and has a much higher melting point (90^{o}C). Therefore, the CN4 will be converted to CNX.

In the CNX process the CN4 is put into a mixer and heated with steam to greater than 127°C. Ammonium nitrate is added to give a concentration of 6%. The compounds combine to form calcium ammonium nitrate. The CN4 mixture passes to an evaporator to reduce the water content to 15% where two CNX molecules have three molecules of water of crystallization.

The liquid calcium ammonium nitrate is then sprayed into a granulation pan; the CNX granules are then screened; the oversize material is crushed and fed with the undersize material to the mixer.

The desired size of CNX granules are then bagged and sold.

Pure Mono Ammonium Phosphate (MAP 39) Plant

The phosphoric acid produced by the Phosphoric Acid Plant is combined with anhydrous ammonia to produce mono ammonium phosphate (MAP 39) for sales. By-products from the process are magnesium ammonium phosphate (MagAmP) solution and the mother liquor from the crystalliser, which are fed to the MAP 33 process. The MAP 39 Plant is illustrated in Figure 7 and described in further detail below.

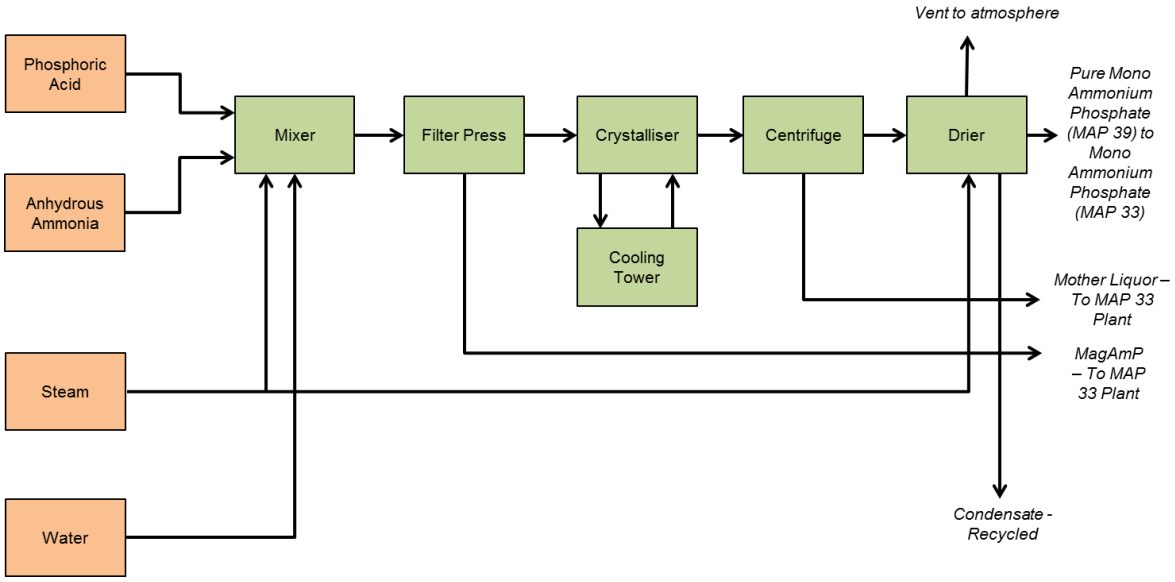

Figure 7: Pure Mono Ammonium Phosphate (MAP 39) Plant

Pure mono ammonium phosphate is produced by injecting anhydrous ammonia into a mixing vessel containing phosphoric acid. Water is added to give the correct concentration and live steam is injected to heat the mix to the reaction temperature. During this process MagAmP is precipitated.

The reaction mix is filtered to remove the MagAmP which then passes to the mono ammonium phosphate (MAP 33) plant as a raw material. Refer to MAP 33 below.

The filtrate is cooled by a heat exchanger and MAP 39 crystals are formed before passing to a centrifuge. The crystals which then pass to a drier to produce the final product which is bagged for sale.

The remaining filtrate (mother liquor) from the centrifuge passes to the Mono Ammonium Phosphate (MAP 33) Plant for further processing. Refer to MAP 33 below.

Mono Ammonium Phosphate (MAP 33)

In the MAP 33 process the mother liquor and the MagAmP from the MAP 39 process are blended with phosphoric acid and anhydrous ammonia to form MAP 33 solution. The MAP 33 solution is fed to a spray drier and a granulator to produce granular MAP 33 for blending into granular fertiliser formulations. The MAP 33 Plant is illustrated in Figure 8 and described in further detail below.

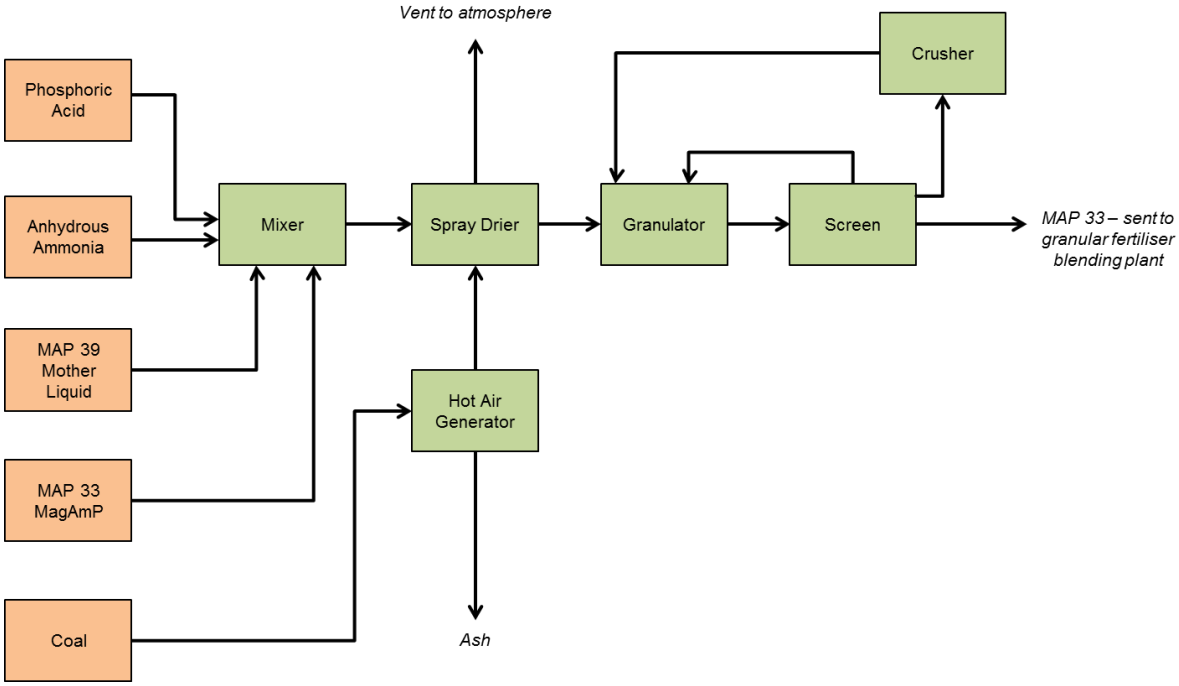

Figure 8: Mono Ammonium Phosphate (MAP 33) Plant

Mono ammonium phosphate (MAP 33) granular is produced by injecting liquid anhydrous ammonia into a vessel containing phosphoric acid, and mother liquor and MagAmP from the MAP 39 Plant. The resultant dilute MAP solution is fed to a spray dryer. In this equipment a mechanical atomizer generates a fine mist of MAP solution to enable the water content to be evaporated.

The evaporation air for the spray dryer is produced by a coal fired hot air generator. A hot air generator is a hearth to make flue gas at about 450°C while burning coal. Because we are dealing with fertilizer we are not concerned with keeping the product pristine so some fly ash entering with the flue gas doesn't present a problem. The spray drier gets inlet gas at 450°C from the burner and the feed is atomized into this hot gas stream where the water evaporates and leaves a dry powder. The outlet temperature is usually about 100°C.

The MAP powder from the spray dryer is fed to a pan granulator; the MAP 33 granules are then screened, bagged and fed to the Granular Fertilizer Blending Plant (refer to the Granular Fertilizer Blending Plant). The oversize is crushed and re-screened. The undersize are fed back to the granulator.

Granular Fertiliser Blending Plant

The existing Granular Fertiliser Blending Plant will be relocated from the Standerton site. The MAP 33 potash and LAN granules are blended according to the required recipe to produce the various fertiliser blends required for the market. The Granular Fertiliser Blending Plant is illustrated in Figure 9 below.

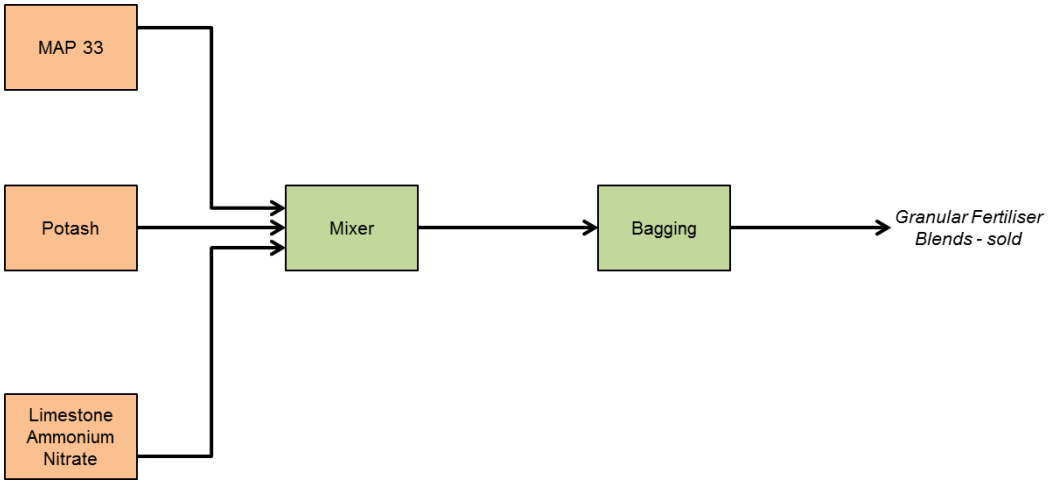

Figure 9: Granular Fertiliser Blending Plant

The various plants can operate in either a continuous or batch mode. They will run during the farming season, April to January, at 5500 hours per annum (h/a).

The first phase of the project is expected to cost 8 million rand with construction taking 6 to 7 months.

Service Provision

Water Supply

Water will be supplied to the proposed Phosphoric Acid Plant from the disused clay quarry and farm dam via a water reticulation network.

Sewerage

Ablution facilities will be utilised by staff working at the proposed Phosphoric Acid Plant. The effluent generated from these ablution facilities will be treated via a waste water treatment plant. Treated effluent will be recycled to the proposed Phosphoric Acid Plant.

Electricity

Electricity for the operation of the proposed Phosphoric Acid Plant will be received from the existing Eskom electrical grid.

Waste Management

Domestic waste generated on site will be taken to the Lekwa Local Municipality disposal site.

5.2 Alternatives Considered

The EIA Regulations states that information on reasonable alternatives should be given during the Scoping phase. The following alternatives have been considered and are discussed in more detail below:

- location alternatives;
- process alternatives; and
- no-go alternative.

5.2.1 Location Alternatives

The two sites that were considered were Farm Vlakfontein 386, Portion 93 and Holfontein 399, Portion 4.

5.2.1.1 Farm Vlakfontein 386, Portion 93

This Farm Vlakfontein 386, Portion 93 is located off the R546, approximately 8km from Standerton on Portion 93 of the Farm Vlakfontein 386 in the Mpumalanga Province. This site alternative proved less favourable:

- as it is a Greenfields (undeveloped land) site;
- electricity provision is unavailable; and
- there is a hazard associated with vehicles accessing the R546.

5.2.1.2 Farm Holfontein 399, Portion 4

The second site is located is located off the R23, approximately 27km from Standerton located within the Lekwa Local Municipality on Portion 4 of the Farm Holfontein 399 in the Mpumalanga Province. This site alternative proved to be more favourable:

- as it is a Brownfields (previously developed land) site;
- is currently supplied with electricity; and
- there is no hazard with vehicles accessing the R53.

5.2.2 Process Alternatives

Best Available Techniques for the Manufacture of Large Volume Inorganic Chemicals Ammonia, Acids and Fertilizers dated December 2006 (http://www.jrc.es/pub/english.cgi/0/733169/) refers "*the nitrophosphate process for producing NPK (nitrogen (N), phosphorus (P) and potassium (K)) grades is characterised by the use of nitric acid for rock phosphate digestion and the subsequent cooling of the digestion solution in order to separate out most of the calcium ions from the solution as calcium nitrate crystals*". The nitrophosphate process is the favoured process for manufacturing phosphoric acid.

An alternative to nitric acid is the use of sulphuric acid. The major disadvantage of using sulphuric acid is the large quantities of phosphor-gypsum that are produced for which there is a limited market.

5.2.3 No-Go Alternative

The no-go alternative must be considered in light of the need for and the desire of the proposed Phosphoric Acid Plant. The positive and negative implications to the proponent, the community, the local economy and the biophysical environment must be considered, should Hi-Fos not be allowed to construct and operate the proposed Phosphoric Acid Plant. These are discussed in more detail below.

5.2.3.1 The Proponent and Local Economy

Soils naturally contain many nutrients like nitrogen, phosphorous, calcium, and potassium. These nutrients allow plants to grow. When soil nutrients are missing or in short supply, plants suffer from nutrient deficiency and stop growing. When the nutrient level is too low, the plant cannot function properly and cannot produce the food necessary to feed the population.

Once crops are harvested for human consumption, the natural supply of nutrients in the soil must be replenished. This is why farmers add nutrients to their soils. Nutrients can be added from a variety of sources—organic matter, chemical fertilizers, and even by some plants. These maintain the soil fertility, so the farmer can continue to grow nutritious and healthy crops.

Farmers utilise fertilizers because these substances contain plant nutrients such as nitrogen, phosphorus, and potassium. Fertilizers are simply plant nutrients applied to agricultural fields to supplement required elements found naturally in the soil.

It is estimated that in 2013, Mpumalanga contributed some R269.9 billion in current prices or some 7.6% to the Gross Domestic Product (GDP) of South Africa. Agriculture contributed 8.6% of the GDP, R23.2 billion. The proposed Phosphoric Acid Plant falls within the Gert Sibande District Municipality that contributed 41.6% to the agricultural GDP, R9.7 billion.[3] The proposed Phosphoric Acid Plant will produce fertiliser to support the commercial agricultural industry in the Gert Sibande District Municipality. Furthermore, the proposed Phosphoric Acid Plant will contribute towards employment.

If the proposed Phosphoric Acid Plant was not to continue, Hi-Fos would not produce:

- fertiliser to support the commercial agricultural industry in the Gert Sibande District Municipality; or
- the phosphoric acid required by Sonskyn.

The consequence to Sonskyn would be business interruption, financial loss and ultimate closure.

[3] Economic Analysis, Socio-Economic Review & Outlook of Mpumalanga, 2014, Mpumalanga Province

5.2.3.2 The Community

For this project, the no-development option would mean not undertaking the proposed rezoning of the site, and subsequently, the construction and operation of the proposed Phosphoric Acid Plant. If the construction and operation of the proposed Phosphoric Acid Plant does not take place, job opportunities for the local community, as contractors and sub-contractors are appointed, will not be realised. In addition, the opportunity for skills transfer, and/or possible skill development will not occur. Furthermore, should Hi-Fos would not produce the phosphoric acid required by Sonskyn, the consequence to Sonskyn would be business interruption, financial loss and ultimate closure.

5.2.3.3 The Environment

For this project, the no-development option would mean not undertaking the proposed rezoning of the site, and subsequently the construction and operation of the proposed Phosphoric Acid Plant. The no-go alternative will entail leaving the site in its present state, where disturbed ecological and hydrological ecosystems exist.

6. NEED AND DESIRABILITY

Soils naturally contain many nutrients like nitrogen, phosphorous, calcium, and potassium. These nutrients allow plants to grow. When soil nutrients are missing or in short supply, plants suffer from nutrient deficiency and stop growing. When the nutrient level is too low, the plant cannot function properly and cannot produce the food necessary to feed the population.

Once crops are harvested for human consumption, the natural supply of nutrients in the soil must be replenished. This is why farmers add nutrients to their soils. Nutrients can be added from a variety of sources—organic matter, chemical fertilizers, and even by some plants. These maintain the soil fertility, so the farmer can continue to grow nutritious and healthy crops.

Farmers utilise fertilizers because these substances contain plant nutrients such as nitrogen, phosphorus, and potassium. Fertilizers are simply plant nutrients applied to agricultural fields to supplement required elements found naturally in the soil.

It is estimated that in 2013, Mpumalanga contributed some R269.9 billion in current prices or some 7.6% to the Gross Domestic Product (GDP) of South Africa. Agriculture contributed 8.6% of the GDP, R23.2 billion. The proposed project falls within the Gert Sibande District Municipality that contributed 41.6% to the agricultural GDP, R9.7 billion. The proposed Phosphoric Acid Plant will produce fertiliser to support the commercial agricultural industry in the Gert Sibande District Municipality. Furthermore, the Proposed Phosphoric Acid Plant will contribute towards employment[4].

[4] Economic Analysis, Socio-Economic Review & Outlook of Mpumalanga, 2014, Mpumalanga Province

7. RECEIVING ENVIRONMENT

7.1 Climate

7.1.1 Data Collection

The information used for the purpose of this section was taken from the Mpumalanga State of the Environment Report 2003 (Mpumalanga DACE, 2003[5]), the Meteoblue climatic database[6], The EIA for the Proposed N17 Toll Road 2002[7], Air Quality Impact Report Setlabotsha Project (EIA, 2016)[8].

7.1.2 Regional Description

Standerton is located within the Mpumalanga Province which experiences hot and wet summers (10 times more rain than the winter months) and mild to cool winters with low precipitation. Winters are predominately dry however, some rain does occur. The annual average rainfall is 767mm, with most rainfall occurring between October and March and heavy rainfall in the form of thunderstorms. Drought cycles are a natural phenomenon in Mpumalanga with cycles lasting one to two years. The average daily temperatures range between 14.8°C in winter (June) to 24°C in summer (January).

7.1.3 Site Description

The site is subject to the climatic conditions, which are discussed below.

7.1.4 Precipitation

The site is located 27km from Standerton, within the Lekwa Local Municipality. The closest weather station to the site is located in Standerton. The climatic data from the Standerton weather station represents the climatic conditions experienced at the site. Table 2 represents the average monthly rainfall data for the period of 30 years (approximately 1985-2015). This rainfall data indicates that the average annual rainfall for the site over the period 1985-2015 is 39.3mm.

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[5] Mpumalanga DACE, 2003. Mpumalanga State of the Environment Report. Mpumalanga Department of Agriculture, Conservation and Environment, Nelspruit.

[6] Meteo Blue Climatic Data, 2016.Website: https://www.meteoblue.com/en/weather/forecast/modelclimate/standerton_south-africa_952747

[7] L & W Environmental, 2002. Environmental Impact Assessment (EIA) for the Proposed N17 Toll Road, Proposed Rehabilitation and Upgrading of the N17 from Springs to Ermelo and Proposed Construction of New Sections between Leandra and Leven Station, at Trichardt and Bethal, Mpumalanga Province.

[8] Kijani Green Energy, 2016. Air Quality Impact Report Setlabotsha Project – EIA, Mpumalanga Province.

Table 2: Average monthly rainfall for the Standerton Weather Station from 1985-2015

Months	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
Rainfall (mm)	69	45	43	23	8	5	2	7	17	67	80	88

7.1.5 Ambient Temperature

For the period 2010-2015, temperatures for mean monthly averages at the Standerton weather station are represented in Table 3. The warmest period is usually between December/January, where the maximum temperatures average above 26°C, whilst June/July is the coldest with daytime temperatures averaging 17°C and overnight temperatures dropping below freezing. Mean maximum temperatures peak at 28°C during the February month, with the mean minimum temperatures dropping to 1°C during June and July for the period 1985-2015.

Table 3: Temperatures for the Standerton weather Station from 1985-2015

Months	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
Maximum °C (T_{max})	28	27	26	24	21	18	18	21	25	26	27	27
Minimum (T_{min}) °C	13	13	12	9	5	1	1	4	8	11	12	13
Mean (T_{avg}) °C	19.2	18.7	17.8	15.3	11	8.6	7.8	11.4	14.5	16.8	17.6	18.8

7.1.6 Surface Wind Field

The annual average wind speed and direction measured at the Standerton weather station is presented in Figure 10 for the period 1985-2015. As a result of the anticyclonic circulation, the surface winds are predominately north to north-westerly, with easterly winds being the second most frequent. Wind speeds during the night tend to be low and calm, with significant differences in daytime and night-time wind speeds.

During the summer months in Standerton (December to February), an increase in the frequency of easterly winds reflects the influence of easterly wave systems. During the winter months (July to August), the prevailing winds are from the northwest, which is a result of the enhanced influence of westerly wave disturbances. Autumn and winter months are associated with a greater frequency of calm wind conditions, whilst the least number of calm wind conditions occur during the spring and summer months.

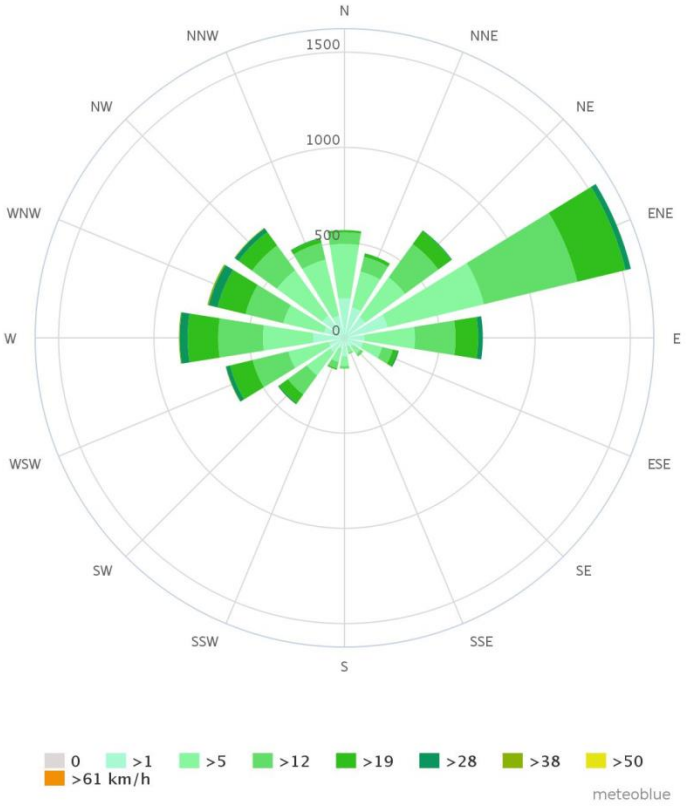

Figure 10: Wind rose for Standerton, which shows the hours per year the wind blows from the indicated direction

7.2 Geology

7.2.1 Data Collection

The information was taken from the Final Scoping Report for the proposed construction and operation of two furnaces and associated infrastructure at Transalloys 2013[9], Revised Environmental Scoping Report for the proposed Combined Cycle Gas Turbine (CCGT) Power Plant in the Amersfoort Area, Mpumalanga Province[10], The Vegetation of South Africa, Lesotho and Swaziland (Mucina and Rutherford, 2006)[11].

[9] Terra Pacis, 2013. Final Scoping Report for the proposed construction and operation of two furnaces and associated infrastructure at Transalloys, Mpumalanga Province.

[10] Bohlweki SSI Environmental, 2008. Revised Environmental Scoping Report for the proposed Combined Cycle Gas Turbine (CCGT) power plant in the Amersfoort Area: Final Project of Eskom Holdings Limited, Mpumalanga Province.

[11] Mucina, L. and Rutherford, M.C. 2006. Vegetation of South Africa, Lesotho and Swaziland. Strelitzia 19. Southern African National Biodiversity Institute, Pretoria.

7.2.2 Regional Description

The predominant geology underlying the Mpumalanga Province comprises mainly of the Karoo Supergroup, which covers two thirds of South Africa. The thickness of the Karoo Supergroup strata varies, with it being extremely thin in the North to roughly 300m in the Standerton area. The other geological formations that occur in the region comprise of the quartzite ridges of the Witwatersrand Supergroup and the Transvaal Supergroup comprising the Pretoria Group as well as the Selons River Formation of the Rooiberg Group. The Karoo Supergroup can be divided into the Dwyka, Ecca and Beaufort Groups.

The Karoo Supergroup hosts sediments carbonaceous shales, sandstone and mudstone and the coals of the extensive Ecca Group. The Karoo Supergroup contains dolerite intrusions, which are commonly found in this type of terrain and represent the roots of the volcanic system and are presumably the same age as the extrusive lavas. Standerton is located within the southern part of Mpumalanga and comprises mainly of the Ecca Group, which is representative of the Mpumalanga Province. The Ecca Group is described below in more detail.

7.2.2.1 Ecca Group

The sedimentary rocks of the Vryheid and Volksrust Formations comprise the Ecca Group. The Ecca Group overlies the Dwyka Formation gradationally and is largely comprised of sandstone, mudstone, shale, siltstone, and coal seams. These are deposited in an extensive landlocked basin experiencing only rare marine incursion.

7.2.2.2 Dwyka Group

The rocks of the Dwyka Group in the Mpumalanga Province were deposited during late Carboniferous to early Permian times by glacial processes. The underlying rocks, especially in the north, display well-developed striated glacial pavements in places. The group consists mainly of marine diamictites and tillite, which is generally massive with little jointing but may be stratified in places. The Dwyka diamictite consist of angular to rounded clasts of basement rock embedded in a clay and silt matrix Subordinate rock types include conglomerate, sandstone rhythmite and mudstone. In certain parts of the Karoo Supergroup the diamictite display distinctive ‘tombstone’ morphology as a result of selective weathering along axial-plane cleavage.

7.2.3 Site Description

The underlying geology of the site, 27km from Standerton, is representative of the geology found underlying the Mpumalanga Province. Trial pit excavations undertaken during the EIA phase will confirm the on site shallow underlying geology.

7.3 Topography

7.3.1 Data Collection

Information was taken from the Mpumalanga State of the Environment Report 2003 (Mpumalanga DACE, 2003)[3], Mpumalanga Agricultural Education and Training Report[12], Lekwa Municipality Integrated Development Plan (IDP) For Financial Year 2013/2014 (Final IDP 2013/2014)[13].

7.3.2 Regional Description

The Mpumalanga Province can be split into two broad topographical zones, namely the high lying grassland savannah of the Highveld escarpment and the subtropical Lowveld plains. The topography of the Mpumalanga Province varies considerably from 1300-1780 meters above mean sea level (mamsl.). The Highveld stretches eastward from Delmas until it rises up the mountain peaks and deep valleys of the escarpment in Belfast in the northeast and plunges down to the low-lying area at the boarder of Mozambique to the Lowveld.

The topography surrounding Standerton in the Lekwa Local Municipality is typical of the topography found on the Highveld Plateau. Slightly to moderately undulating plains typifies the Highveld plateau. The area is relatively flat, which has resulted in several pans and wetlands occurring with occasional ridges and rocky outcrops. The Lekwa Local Municipality area contains several important koppies, with the most important being Standerskop located in Standerton and is also recognised as a conservation area. Other koppies that were recognised in the area are:

- Spioenkop – to the east of Thuthukani.
- Potberg – southwest of Standerton.
- Joubertskop – southwest of Standerton.

7.3.3 Site Description

The site is located within the Lewka Local Municipality, which forms part of South Africa's elevated inland plateau in the Grassland Biome ecosystem. The topography is relatively flat or gently undulating, ranging from 1500-1800mamsl.

[12] Mhlangu E.E. and Sekgota, M.G.B, Department of Agriculture, Conservation and Environment. Mpumalanga Agricultural Education and Training Report, National Strategy on Education and Training for Agriculture and Rural Development, Mpumalanga Province.

[13] Lekwa Municipality Integrated Development Plan (IDP) for Financial Year 2013/2014. Lekwa Local Municipality.

7.4 Soil and Land Capability

7.4.1 Data Collection

Information was taken from the Mpumalanga Agricultural Education and Training Report[12], The Vegetation of South Africa, Lesotho and Swaziland (Mucina and Rutherford, 2006)[8], Goldi – A division of Astral Operations Limited, 2015 (Final Basic Assessment Report)[14].

7.4.2 Regional Description

The predominant soils are mostly derived from the geology of the Mpumalanga Province and are predominately shale, sandstone or mudstone of the Karoo Supergroup. The soils that occur in the Karoo Supergroup are deep, reddish on flat plains. The generalised soil profile in Standerton is as follows:

- Colluvial soils;
- Residual dolerite;
- Deeper residual dolerite; and
- Weather siltstone.

The land capability is derived from the soils and climate in the Mpumalanga Province. The diversity of soils, climate and topography in the province enables the production of a wide variety of agricultural activities. Crops that are grown in the Lowveld include citrus and subtropical fruits, whilst the Highveld produces the summer grains, which consist of maize, sunflower and grain sorghum.

Land degradation as a result of coal mining in the Mpumalanga Province has affected the land capability. This is evident in the reduced amount of arable land available for agricultural practices.

7.4.3 Site Description

The soil of the site, 27km from Standerton, is representative of the soil profile as described above. Although the site is zoned agricultural, a historical brickwork (constructed in 1964, decommissioned in 1999) is sited there. The historical brickwork has impacted the soil structure and fertility.

[14] Shangoni Management Services *(Pty) Ltd,* 2015. Goldi – A Division of Astral Operations Limited, Goldi Farm Composting Site – S24G Application, Standerton.

7.5 Land Use

7.5.1 Data Collection

This information was taken from the Kipower (Pty) Ltd Environmental Impact Assessment, 2016[15], The Mpumalanga State of the Environment Report 2003[3] (Mpumalanga DACE, 2003), South African Land Cover 2013 (ArcGIS)[16].

7.5.2 Regional Description

The Mpumalanga Province land use is dominated by agriculture, mining and power generation. The agricultural practices include maize and sunflower farming whilst coal mining is the predominant industrial activity in the area. The major land uses in Standerton are cultivated land, urban zones and mines.

7.5.3 Site Description

Although the site is zoned agricultural, a historical brickwork (constructed in 1964, decommissioned in 1999) is sited there. The historical brickwork has impacted the soil structure and fertility and in turn altered the land use. The area surrounding the site is characterised by historical brickwork activities, cultivated commercial fields, farming housing and community dwellings.

7.6 Flora

7.6.1 Data Collection

Information was taken from The Vegetation of South Africa, Lesotho and Swaziland (Mucina and Rutherford, 2006)[8], the Kipower (Pty) Ltd Environmental Impact Assessment, 2016[13].

7.6.2 Regional Description

The Mpumalanga Province is situated mainly on the Grassland Biome, which is known as the Highveld. The Highveld stretches eastwards, until it rises to towards the mountain peaks and deep valleys of the escarpment in the northeast. The Grassland Biome consists of a high biodiversity, which includes a variety of grass species, some scattered rocky outcrops, forbs, shrubs as well as a few wood species.

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[15] Jones & Wagener Engineering & Environmental Consultants. Kipower (Pty) Ltd, 2016. Environmental Impact Assessment Process for the Proposed Matla-Glockner Lopp-in and Loop-out 400 kv Transmission Lines to Connect the Kipower IPP Power Plant to the National Grid, Delmas, Mpumalanga Province.

[16] ArcGIS, 2016. South African Land Cover

Standerton occurs within the Grassland Biome where grass species dominates, with scattered shrubs within the grassland and geophytes occur abundantly. Two sub-types of vegetation occur within Standerton and are as follows:

- Soweto Highveld Grassland; and
- Frankfort Highveld Grassland.

7.6.2.1 Soweto Highveld Grassland

The vegetation that dominates this grassland is short to medium high dense tussock and is dominated by *Themeda triandra* and other prominent grasses such as *Andropogon appendiculatus, Brachiaria serrate, Cymbopogon pospischilii, Elionurus muticus, Eragrostis* species, *Heteropogon contortus* and *Setaria* species. The grass diversity is relatively high along with the diversity of geophytes and herb species. Some of the more common low shrubs scattered within the grassland include *Anthispermum* species, *Felicia muricata* and *Ziziphus zeyheriana.* There are scattered small wetlands, narrow stream alluvia, pans and occasional ridges or rocky outcrops that interrupt the continuous grassland.

The conservation status of this vegetation type is endangered, with only small patches statutorily conserved or privately conserved. Almost half of the area has been transformed by cultivation, urban sprawl, mining and building of road infrastructure. Some areas have become flooded with dams (Grootdraai, Leeukuil, Trichardtsfontein, Vaal, Willem Brummer) and the erosion in this area is generally low.

7.6.2.2 Frankfort Highveld Grassland

The Frankfort Highveld Grassland occurs marginally in Mpumalanga, in the south and southeast of the Vaal Dam in the Vicinity of Heilbron, Frankfort and Vrede. This area is characterised by flat to slightly undulating and undulating terrain and the grassland is dominated by the vegetation types *Eragrostis curvula* and *Themeda trianda,* accompanied by *Eragrostis capensis, Eragrostis plana, Eragrostis racemosa, Cymbopogon pospischilii, Elionurus muticus* and *Aristida junciformis.*

This grassland has a vulnerable conservation status, with no statuary conservation areas. Over a third of this area has been transformed by cultivated land, mostly maize farming, or has been flooded by dams (Vaal Dam). The erosion in this grassland is very low.

7.6.3 Site Description

A historical brickwork (constructed in 1964, decommissioned in 1999) is located on the site and has impacted the vegetation. During a site visit, it was observed that the footprint is covered with concrete floors and brick paving. The footprint is scattered with alien invasive species, such as *Bidens pilosa*, otherwise known as blackjacks.

7.7 Fauna

7.7.1 Data Collection

Information was taken from the Mpumalanga Biodiversity Conservation Plan Handbook (Ferrar and Lotter, 2007)[17], Lekwa Municipality Integrated Development Plan (IDP) For Financial Year 2013/2014 (Final IDP 2013/2014)[11].

7.7.2 Regional Description

The Mpumalanga Province has a variety of mammal biodiversity with 45 formal Protected Areas (PAs), with an additional 115 informal PAs comprising private land committed to conservation. Many of the PAs located within Mpumalanga have a wide variety of game, including the "big 5" animals (lion, leopard, buffalo, elephant and rhino). The Kruger National Park is located within the Mpumalanga Province and makes up 70% of the total PAs within the area.

There are two formal conservation areas that are located within the Lekwa Local Municipality and these make up 4% of the total municipality, these are:

- The Reitvaal Conservancy.
- The Bloukop Nature Reserve.

7.7.3 Site Description

As a consequence of historical brickwork (constructed in 1964, decommissioned in 1999) and agricultural activities on the site, limited faunal species are likely to occur within the area. Faunal and avian species that have been noted on the site include rabbit, rodent, black-backed jackal, grey duiker, porcupine, hedgehog, mongoose, bush pig, birds of prey and flamingo.

7.8 Surface Water

7.8.1 Data Collection

Information was taken from the dataset from the DWS, Lekwa Municipality Integrated Development Plan (IDP) For Financial Year 2013/2014 (Final IDP 2013/2014)[11], Development of an Integrated Water Quality Management Plan for the Vaal River System (2009)[18], Classification of significant

[17] Ferrar, A.A. & Lotter, M.C. 2007. Mpumalanga Biodiversity Conservation Plan Handbook. Mpumalanga Tourism and Parks Agency, Nelspruit.

18 Department of Water and Forestry (DWAF), 2009. Development of an Integrated Water Quality Management Plan for the Vaal River System, Water Quality Management Strategy, Mpumalanga Province.

water resources in three Vaal Water Management Areas (Newsletter No. 1 2011)[19], Revisiting Rietspruit: Land Cover Change and Water Quality in South Africa (2000)[20].

7.8.2 Regional Description

Four of southern Africa's major river systems are located within the Mpumalanga Province. Nearly half of Mpumalanga (53%) drains into the Olifants River system, The Orange River system (Vaal River), Inkomati River system (Crocodile, Sabie, Sand and Komati Rivers) and Pongola River system (Usutu River).

The Lekwa Local Municipality is located within the Upper Vaal Water Management Area (WMA). The Upper Vaal WMA lies in the eastern interior of South Africa. In the Upper Vaal WMA, 80% of the requirements for water is by the industrial, urban and mining sectors, with 9% for irrigation and 7% for power generation.

The most important river in the Lekwa Local Municipality is the Vaal River and it flows in a westerly direction through Standerton. Other rivers in the area include the Waterval River, which is to the west of the municipal area, and the Klip River, which forms part of the southern municipal boundary between Lekwa and the Free State before its confluence with the Vaal River.

The Grootdraai Dam is situated in the upstream of Standerton and is a major impoundment within the WMA. This dam is primarily used for flow attenuation and water supply. Pans and palustrine marsh wetlands occur in the Lekwa Local Municipality area. Due to the relative flat topography of the municipal area, there are several non-perennial and perennial pans scattered throughout the area.

7.8.3 Site Description

The site lies within the C12B quaternary drainage region. Located about 2km south of the site is the Rietspruit River, which is a sub-catchment of the Vaal River catchment. Surface water on the site consist a farm dam and a disused clay quarry.

7.8.4 Surface Water Quality

The Department of Water Affairs and Forestry (DWAF) conducted a water quality assessment on thee Vaal River System, which is the main river system that flows through Standerton just south of the site. The Upper Vaal WMA has been highly altered by catchment and land developments such as extensive urban areas, industrial development, agriculture, power generation and coal mining. The most severe impacts from these land developments are irrigation return flow, mining and

[19] Department of Water Affairs (DWA), 2011. Classification of significant water resources in three Vaal Water Management Areas (Newsletter No. 1), South Africa.

[20] Pamela, S.S., Silberbauer, M., Moolman, J. and Howman, A., 2000. Revisiting Rietspruit: Land Cover Change and Water Quality in South Africa. Proceedings of the ICRSE 28TH International Symposium on Remote Sensing of Environment and the Third AARSE Symposium, Cape Town.

urban runoff into the Upper Vaal WMA. The water quality within the Upper Vaal River is of fairly good quality, however, the Total Dissolved Solids (TDS) are increasing, which decreases the aesthetic value of the water. Eutrophication in the form of algal blooms and the proliferation of water hyacinths has also caused the water quality of the Vaal River System to decrease.

The water quality in the Rietspruit River, to the south of the site, contains elevated nutrients and salt levels due to the high agricultural activity that surrounds the area. Runoff from these agricultural activities is a major concern and a major reason for the deteriorated water quality. High nutrients also suggest some sort of raw effluent that is entering the river upstream.

7.9 Groundwater

7.9.1 Data Collection

Information was taken from the Mpumalanga Groundwater Master Plan (DWAF, 2008)[21], the Final Scoping Report for the proposed construction and operation of two furnaces and associated infrastructure at Transalloys 2013[9].

7.9.2 Regional Description

The groundwater characteristics are characterised by the geology of the Mpumalanga Province. The geology of the province influences the movement of the groundwater and is described below for the Ecca and Dwyka Groups and dolerite dykes. An important feature with regards to the ground water resources of the Upper Vaal WMA is the large dolomitic aquifers which extend in the north-western part of the WMA.

7.9.2.1 Ecca Group

The rocks in this group were formed during the Permian Erathem, which was an extremely wet period and coal deposits formed throughout this region. The Ecca Group consists mainly of shale, which varies in thickness from 1500m in the south to 600m in the North. The shales are very dense and often overlooked as significant sources of groundwater. However, there are areas where large quantities of water are pumped daily from the boreholes.

The deltaic sandstones represent some of the Ecca sediments in which it is expected to find high-yielding boreholes. However, this is not the case as it has been found that sandstone permeability is very low and does not hold a large amount of water. The main reason for this is that sandstone is often poorly sorted with the primary porosities being lowered considerably by diagenesis, which is the physical conversion of sediment into sedimentary rock.

[21] Department of Water Affairs and Forestry, 2008. Mpumalanga Groundwater Master Plan, Mpumalnaga Province

7.9.2.2 Dwyka Group

The Dwyka diamictite and shale have very low hydraulic conductivity, and virtually no primary voids. The Dwyka Group constitutes a very low-yielding fractured aquifer and water is confined within narrow discontinuities like joints and fractures. Therefore, the Dwyka diamictite and shale tend to form aquitards rather than aquifers. The Dwyka sediments were deposited mainly under marine conditions, therefore, the water in these aquifers tend to be saline. Exploitable aquifers thus only exist at a few locations in the Karoo Basin, where sand and gravel were deposited on beaches or where the Dwyka Group was fractured significantly.

7.9.2.3 Dolerite Dykes

Dolerite dykes are vertical to sub-vertical discontinuities that, in general, represent thin, linear zones of relatively higher permeability, which at as conduits for groundwater flow within the aquifer. The dolerite dykes act as semi- to impermeable barriers to the movement of groundwater and are the preferred drilling target for groundwater in the Karoo Supergroup. These aquifers, which typically lie between a solid dyke and the saturated, low permeability country rock, are formed by the increase in permeability of the contact zone as a result of the effects of induration and crushing associated with the intrusion of the dyke.

7.9.3 Site Description

Groundwater, in the Karoo Supergroup, on site is abstracted from boreholes, which provides water to the farming housing and community dwellings.

7.10 Air Quality

7.10.1 Data Collection

The Air Quality Impact Report Setlabotsha Project (EIA, 2016)[5], Mpumalanga DALA Air Quality Monitoring Network, 2010[22], the Highveld Priority Area Air Quality Management Plan Executive Summary, 2010[23], the Final Scoping Report for the proposed construction and operation of two furnaces and associated infrastructure at Transalloys 2013[9].

7.10.2 Regional Description

The HPA, which was declared as a priority airshed area on 23 November 2007. This area was demarcated as a priority area due to the poor air quality and elevated concentrations of criteria

[22] Gondwana Environmental Solutions, 2010. Mpumalanga DALA Air Quality Monitoring Network, Mpumalanga Province.

[23] Department of Environmental Affairs (DEA), 2010. Highveld Priority Area Air Quality Management Plan Executive Summary, South Africa.

pollutants from industrial and non-industrial sources of air pollution. The HPA covers an area of 31 106km^2, which includes parts of Gauteng and Mpumalanga Provinces, with a single metropolitan municipality, three district municipalities, and nine local municipalities.

The biggest contributors to emissions within the HPA are industrial resources, which account for 89% of PM_{10}, 90% of NO_x and 99% of SO_2 (PM refers to dust or particulate matter (PM) with a diameter smaller than ten micrometres (µm)). NO_x refers to substances consisting of one nitrogen (N) atom and a variable amount of oxygen (O) atoms, whilst SO_2 is sulphur dioxide consisting of one sulphur (S) atom and two O atoms. These three emissions are of particular interest as they pose a high health risk when inhaled in high concentrations.

The major contributors of emissions from industrial sources in the HPA are listed below:

- Coal mining.
- Power generation.
- Brick manufacturers.
- Primary metallurgical operations.
- Secondary metallurgical operations.
- Brick manufacturers.
- Petrochemical industry.
- Mpumalanga Industrial Sources (excluding the above).

In the town of Standerton, relatively low SO_2 hourly exceedances were recorded, whilst no exceedances of SO_2 were recorded on the daily standard. Industrial emissions in Standerton peaked during the day between 08:00-12:00, which is indicative of industrial emissions. PM_{10} is a pollutant of concern in Standerton, which indicates high dust or particular matter.

7.10.3 Site Description

The current impacts to the site air quality are associated with farming practices that typical comprise dust or PM.

7.11 Visual

The historical brickwork (constructed in 1964, decommissioned in 1999) has impacted visually on the character of the site. Structures associated with the brickwork can be visually seen some distance from the site (Figure 11).

Figure 11: Photograph of the Historical Brickwork

7.12 Cultural Heritage

As a consequence of historical brickwork (constructed in 1964, decommissioned in 1999) and agricultural activities on the site cultural heritage may have been lost. A phase 1 heritage impact assessment will be undertaken during the EIA phase to confirm any heritage sightings.

7.13 Socio-Economic

7.13.1 Data Collection

Information was taken from the Statistics South Africa: Local Municipality[24].

7.13.2 Regional Description

7.13.2.1 Population Size

The population density for the Lekwa Local Municipality from the census count of 2011 was 115 662 persons, which is an increase from 103 265 people in 2001. From 2001 to 2011 the population growth rate was 1.13%. Statistics on the various population groups during 2011 were as follows:

- Black Africa: 84.2%.

[24] Statistics South Africa. Website: http://www.statssa.gov.za/?page_id=993&id=lekwa-municipality.

- Coloured: 2.9%.
- Indian/Asian: 1.2%.
- White: 11.4%.
- Other: 0.3%.

7.13.2.2 Gender and Age Group Analysis

The age structure of Lekwa Local Municipality demonstrates an atypical pattern. In 2011, there was an equal size of the population in the age groups between 0-4 and 20-24. These results indicate that the population levels are stabilising over time, with stable levels of fertility. The percentage females (50.10%) were slightly higher than that of males (49.90%). There is an unusual larger population of males than females between the ages 0-24.

Table 4 demonstrates the distribution of age groups and it is evident that the largest percentage of people in the area falls within the age group category 15-65.

Table 4: Age Group Analysis taken from the Census Report in 2011

Age Group (Years old)	Percentage
0 to 14	28.6%
15 to 64	66.4%
65+	5%

7.13.2.3 Literacy and Education

The census report from 2001-2011 in the Lekwa Local Municipality demonstrates improvements in education. According to the census in 2001, approximately 19.5% of the population over the age of 20 had no form of schooling and this was reduced to 11.2% by 2011. This indicates an improvement in the educational attainment by 8.3% over the 10-year period. A marked increase in primary school education attainment has been noted between 2001 and 2011. A significant increase from 2001 to 2011 has been noted in the percentage of pupils attaining a matric. Further to this, there has been a significant increase of 4.9% of individuals over the age of 20 attaining some form of higher education compared to the periods of 2001 (5.4%) and 2011 (10.3%). Table 5 demonstrates the literacy and education percentages.

Table 5: Literacy and Education Percentages

Education	Percentage
No schooling aged 20+	11.2%
Higher education aged 20+	10.3%
Matric aged 20+	11.2%

7.13.2.4 Labour Force and Unemployment

The unemployment rate in 2001 was 36.6% and 25.9% in 2011, which demonstrates a reduction in the percent unemployed in the district between 2001 and 2011. The employment for males still remains higher than females at 19.5% unemployment rate for males and 33.9% for females.

7.13.2.5 Municipal Wards

Lekwa Local Municipality has a total of 15 wards. The site is located in Ward 15 of the Lekwa Local Municipality.

8. POTENTIAL ENVIRONMENTAL IMPACTS

Through the Scoping phase and public participation process the following potential impacts have been identified and will be further explored as part of the EIA phase.

8.1 Construction Phase

8.1.1 Geology

The historical brickwork (constructed in 1964, decommissioned in 1999), located on the site, resulted in the excavations of foundations required to support the structures. Based on anecdotal evidence, the structures are approximately 3m in depth. These excavations did not extend to the bedrock underlying the surface sub-soil; therefore, the excavations did not affect the underlying geology.

The proposed Phosphoric Acid Plant will be located on the historical brickwork footprint, and existing foundations will be used where possible. Additional excavations required for the foundations of the proposed Phosphoric Acid Plant will not be in excess of 3m, thus no further impact to the geology is expected.

8.1.2 Topography

Level platforms and surface infrastructure of the historical brickwork (constructed in 1964, decommissioned in 1999) altered the topography of the site and changed the surface water drainage patterns.

The proposed Phosphoric Acid Plant will be located on the historical brickwork footprint, and the topography and surface water drainage patterns will remain unchanged.

8.1.3 Soil

Activities such as topsoil stripping, removal of subsoil, soil compaction and the establishment of the hard park associated with the historical brickwork (constructed in 1964, decommissioned in 1999) altered soil structure and fertility permanently.

The proposed Phosphoric Acid Plant will be located on the historical brickwork footprint, however, the impact from material, chemical and hydrocarbon spillage may occur during the construction phase. A material, chemical and hydrocarbon management plan is proposed to mitigate such.

8.1.4 Land use and land capability

Although the site is currently zoned as agricultural, a historical brickwork (constructed in 1964, decommissioned in 1999), farming houses, community settlement and other farming structures exist. The proposed Phosphoric Acid Plant will be located on the historical brickwork footprint that has currently lost its agricultural land use and capability.

8.1.5 Flora

The construction of the historical brickwork (constructed in 1964, decommissioned in 1999) resulted in the loss of topsoil, subsoil and vegetation. Majority of the footprint is covered in concrete structures and bricked paving with minimal vegetation cover, mainly alien species. The proposed Phosphoric Acid Plant will be located on the historical brickwork footprint and no indigenous vegetation will be lost.

8.1.6 Fauna

The construction of the historical brickwork (constructed in 1964, decommissioned in 1999) resulted in compacted soil, removal of nutrients and subsequent loss of vegetation. This resulted in habitat loss and the relocation of faunal species to alternative habitats.

Rodent and avian species might occur on site and construction activities associated with the Proposed Acid Plant will result in the relocation of these species.

8.1.7 Surface Water

The surface water runoff and drainage patterns were altered by the construction and operation of the historical brickwork (constructed in 1964, decommissioned in 1999). The site currently drains towards a farm dam that was used by the historical brickwork.

Surface water runoff and drainage patterns will be marginally altered by the construction of the Phosphoric Acid Plant, as the current hardened footprint will be increased. Material, chemical and hydrocarbons associated with construction activities may impact on the surface water if not managed. A material, chemical and hydrocarbon management plan is proposed to mitigate such.

8.1.8 Groundwater

The historical brickwork (constructed in 1964, decommissioned in 1999), located on the site, resulted in the excavations of foundations required to support the structures. Based on anecdotal evidence, the structures are approximately 3m in depth. Although the impact to groundwater from the historical brickwork is unknown, due to the nature of clay brick manufacturing, it is assumed that the borrow pit and ash waste stockpiles may have negligibly impacted on such. Currently boreholes are present on site and are used for domestic purposes.

The construction of the proposed Phosphoric Acid Plant is not expected to impact on the groundwater.

8.1.9 Air Quality

As a result of earthworks, transportation of materials and construction related activities, dust and fine particulate emissions are expected. The wind will carry this dust and fine particulates into adjacent areas. Fallout of nuisance dust will largely affect the adjacent area. Mitigation measures will be sought in the EIA phase to mitigate such.

8.1.10 Noise

During the construction phase, construction, heavy vehicles, excavation activities, hammering, welding, earth moving, as well as the transportation of machinery, equipment and materials will generate noise. The noise generated is expected to impact negatively on the adjacent area. Mitigation measures will be sought in the EIA phase to mitigate such.

8.1.11 Traffic

During the construction phase, traffic impacts will be sustained by construction vehicles and heavy machinery on site. In addition, the transportation of construction materials, equipment and supplies to the site will impact on the national roads.

8.1.12 Visual

During the construction phase, visual impacts will be sustained by vehicle traffic to and from the site, the generation of dust, the impact of light pollution and the erection of structures. Mitigation measures will be recommended in the EIA phase.

8.1.13 Cultural Heritage

The existing impacts from the historical brickwork (constructed in 1964, decommissioned in 1999) and agricultural activities have already impacted cultural heritage that may have been present pre-1964. The proposed Phosphoric Acid Plant will be located on the existing impacted footprint.

8.1.14 Socio-Economic

The construction of the proposed Phosphoric Acid Plant will result in an increase in job opportunities for the local community, as contractors and sub-contractors are appointed. This could give rise to further positive impacts through skills transfer, and/or possible skill development.

8.2 Operation Phase

8.2.1 Geology

The existing impacts (that being those created during the construction phase) to geology will not be altered by the proposed developments operational activities.

8.2.2 Topography

The proposed Phosphoric Acid Plant operational phase will not create an additional impact to the topography than that created during the construction phase.

8.2.3 Soil

Potential spillage of material, chemical and hydrocarbons associated with the operational phase of the proposed Phosphoric Acid Plant will not extend beyond the paved and bunded footprint of the site. Any accidental spillage will be recycled in the Plant. Raw materials and final products will be stored in tanks, bags and concrete bunded facilities (roofed where possible). Rainwater run-off from these facilities will be collected and recycled in the Plant.

8.2.4 Land use and land capability

The existing impacts to land use and capability will not be altered by the propose Phosphoric Acid Plant operational activities.

8.2.5 Flora

There will be no additional impacts sustained to flora during the operational phase of the Proposed Phosphoric Acid Plant.

8.2.6 Fauna

There will be no additional impacts sustained to fauna during the operational phase of the Proposed Phosphoric Acid Plant.

8.2.7 Surface Water

The topography of the proposed Phosphoric Acid Plant site naturally drains towards the farm dam. Rainwater runoff and spillage could impact on the water quality of the dam should such not be managed. It is envisaged that the rainwater runoff and spillage from the proposed Phosphoric Acid Plant will be will contained and recycled.

8.2.8 Groundwater

Groundwater impacts could be sustained by the operational phase of the proposed Phosphoric Acid Plant, should raw materials and final products not be appropriately stored, handled and transported. The design of the plant and the management of raw materials and final products will be key to mitigating potential groundwater impacts.

8.2.9 Air Quality

The proposed Phosphoric Acid Plant operational phase will vent emissions to atmosphere and should such not be filtered through appropriate pollution abatement equipment, there will be an impact to the local area. In addition, the uncontrolled movement of materials will result in dustfall that could impact negatively on the farming community.

8.2.10 Noise

The noise generated during the operational phase of the proposed Phosphoric Acid Plant will result from equipment and vehicles. Should equipment not be adequately house and maintained the resultant noise could impact on the farming community. In addition, should vehicles not be maintained, noise associated with such could further impact on the farming community.

8.2.11 Traffic

The transportation of raw materials and final products to and from the proposed Phosphoric Acid Plant will result in additional traffic on the National road. The impact to the National road is not expected to result in traffic congestion.

8.2.12 Visual

During the operational phase of the proposed Phosphoric Acid Plant, raw material and final product handling as well as the generation of dust from vehicle entrainment, will be the primary activities that may result in negative visual impacts. Operational activities undertaken at night will create light pollution, which may impact on the farming community.

8.2.13 Cultural Heritage

The operational phase of the proposed Phosphoric Acid Plant will not impact on cultural heritage sightings.

8.2.14 Socio-Economic

During the operational phase of the proposed Phosphoric Acid Plant, socio-economic aspects will be sustained by the creation of job opportunities, the generation of additional GDP and the purchasing of services from local government.

9. PUBLIC PARTICIPATION PROCESS

Public participation as defined by Canter (1996)[25] is a continuous two way communication process aimed at promoting full public understanding of the processes and mechanisms through which

[25] Canter, L.W. 1996. Environmental Impact Assessment, 2nd Edition. McGraw-Hill Inc

environmental problems and needs are investigated and solved by the responsible agency. It is aimed at keeping the public informed about the status and progress of the studies conducted and the implications of the project thereof as well as document all issues, comments and concerns voiced by the public and their preferences regarding resource use and alternative development or management strategies and any other information and assistance relative to the decision.

The stakeholder engagement process as it is referred to by the DEA is a *"…process leading to a joint effort by stakeholders, technical specialists, the authorities and the proponent who work together to produce better decisions than if they had acted independently...".* The process aims at improving *"....communication between stakeholders – including the proponent – in the interest of facilitating better decision-making and or sustainable development...".*

Sustainable development requires some level of trade-off between economic growth, social equity and ecological integrity. The public participation process provides an opportunity for I&APs to participate in an informed basis and ensure their needs and requirements are considered and allows the decision-making authorities to understand to what degree stakeholders are willing to accept and live with the trade-offs involved (Information Series 3, Integrated Environmental Management Information Series, 2002[26]).

The objectives of the public participation process for the project can thus be summarised as follows:

- Identify relevant individuals, organisations and communities who may be interested in or affected by the existing and proposed activities.
- Clearly outline the scope of the project, including the scale and nature of the existing and proposed activities.
- Identify viable project alternatives that will assist the relevant authorities in making an informed decision.
- Identify shortcomings and gaps in existing information.
- Identify key concerns, raised by I&APs that should be addressed in the subsequent specialist studies.
- Highlight the potential for environmental impacts, whether positive or negative.
- To inform and provide the public with information and an understanding of the existing and proposed activities, issues and solutions.

9.1 The Roles and Responsibilities of the Stakeholder

Registered I&APs (stakeholders) have the right to bring to the attention of the competent authority any issues that they believe may be of significance to the consideration of the application.

The rights of stakeholder are qualified by certain obligations, namely:

[26] Department of Water and Environmental Affairs. 2002. Information Series 3: Public Participation, Integrated Environmental Management Information Series.

- Stakeholders must ensure that their comments are submitted within the timeframes that have been approved by the DEA, or within any extension of a timeframe agreed by the proponent, EAP or competent authorities.
- Serve a copy of the comments submitted directly to the competent authorities, the proponent or the EAP.
- Disclose to the EAP any direct business, financial, personal or other interest that they might have in the approval or refusal of the application.

The roles of stakeholders in a public participation process usually include one or more of the following:

- Assisting in the identification and prioritisation of issues that need to be investigated.
- Making suggestions on alternatives and means of preventing, minimising and managing negative impacts and enhancing project benefits.
- Assisting in or commenting on the development of mutually acceptable criteria for the evaluation of decision options.
- Contributing information on public needs, values and expectations.
- Contributing local and traditional knowledge.
- Verifying that their issues have been considered.

In order to participate effectively, stakeholders should:

- Become involved in the process as early as possible.
- Register as a stakeholder.
- Advise the EAP of other stakeholders who should be consulted.
- Contribute towards the design of the public participation process (including timeframes) to ensure that it is acceptable to all stakeholders.
- Follow the process once it has been accepted.
- Read the material provided and actively seek to understand the issues involved.
- Give timeous responses to correspondence.
- Be respectful and courteous towards other stakeholders.
- Refrain from making subjective, unfounded or ill-informed statements.
- Recognise that the process is confined to issues that are directly relevant to the application.

9.2 Approach to Public Participation

Our approach to public participation is based on the following principals:

- Undertake meaningful and timely participation with I&APs.
- Focus on important issues during the S&EIR process.
- Undertake due consideration of alternatives.
- Take accountability for information used.

- Encourage co-regulation, shared responsibility and a sense of ownership over the project lifecycle.
- Apply "due process" particularly with regard to public participation as provided for in the EIA Regulations.
- Consider the needs, interests and values of I&APs.

9.3 Methodology

Public participation varies given the technical nature of the activity, the geographical location, extent, duration, intensity and frequency of potential impacts associated with the existing and proposed activities, as well as the capacity of the receptive community to participate in the project. The processes outlined below are specific to this study.

9.3.1 Identification of I&APs

I&APs were identified through several mechanisms. These included:

- Networking with local business owners, farmers associations, non-governmental agencies, community based organisations, and local council representatives.
- Advertising in the press, placement of community notices, and distribution of BIDs (discussed separately).
- Researching and reviewing of other studies undertaken in the area.

All I&APs identified were registered on the stakeholder database. The EAP endeavoured to ensure that individuals/organisations from referrals and networking were notified of the proposed project, in addition to efforts to notify and identify I&APs at a geographical level. I&APs were identified at the horizontal (geographical) and vertical extent (organisations level). Refer to Appendix 3 for a list of stakeholders captured in the project database[27].

9.3.2 Creating Awareness – Initiation

9.3.2.1 Newspaper Advertisements

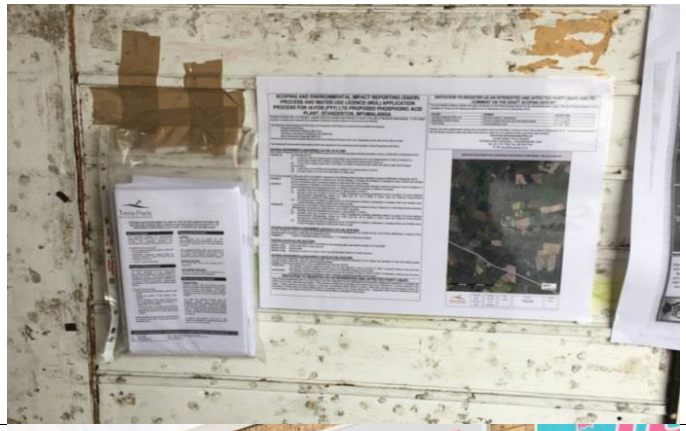
Advertisements, announcing the project, inviting I&APs to register and announcing the availability of the Draft Scoping Report, were placed in the local publication: Cosmos News, on the 2 November 2016, Standerton Advertiser on the 11 November 2016. A third advertisement was placed in the national publication, The Star, on 4 November 2016. Refer to Appendix 4 for copies of the newspaper advertisements.

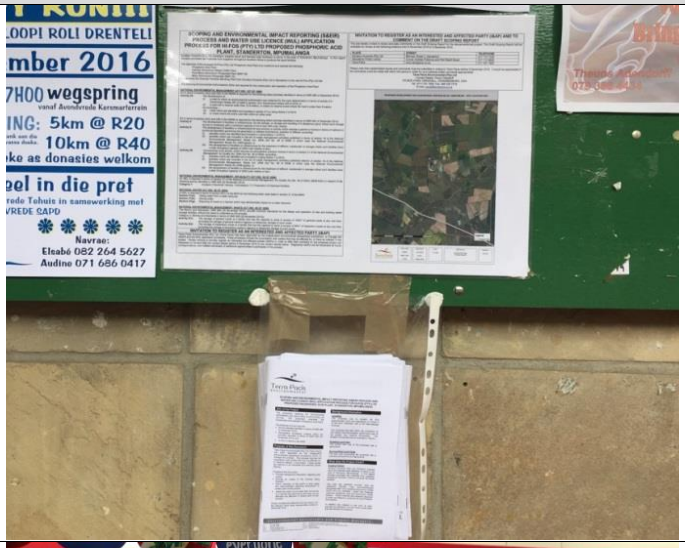
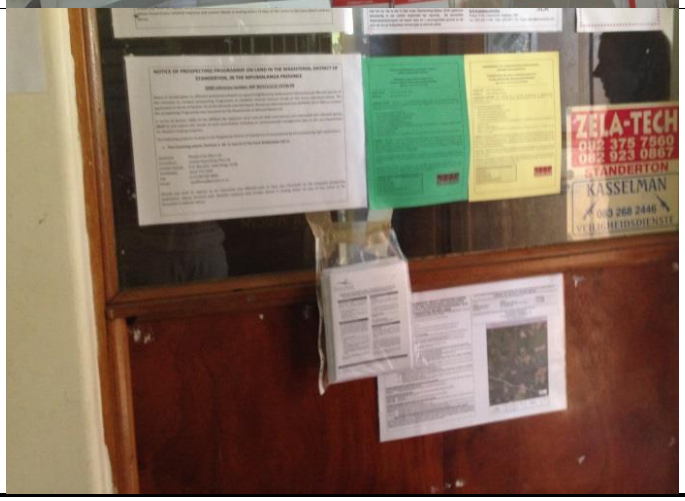
[27] Please note that full details of stakeholders have not been included in the public report in order to ensure that privacy is not compromised. A full database is held at Terra Pacis' Johannesburg Office for perusal if required.

9.3.2.2 Community and Site Notices

In total seven English colour notices, announcing the proposed project and inviting I&APs to register and comment on the Draft Scoping Report, were erected on 2nd November 2012 at the following six public places, and as indicated in Table 6 below.

Table 6: Community and Site Notices

Area	Place	Photo
Standerton	Super Spar	 
Standerton	Pick ‘n Pay	

Area	Place	Photo
		
Standerton	Shopright	
Standerton	Standerton Public Library	

Area	Place	Photo
Holfontein Farm 399, Portion 4	Community	 
Holfontein Farm 399, Portion 4	Farm access road	

For a copy of the community and site notices please refer to Appendix 5.

9.3.2.3 Background Information Document

The purpose of a BID is to provide stakeholders with introductory information on the application, the S&EIR process and the public participation process. The BID also provides I&APs who are interested in the project with the opportunity to register as stakeholders by way of completing the registration sheet distributed with the BID. Information on the registration sheet has been used to register stakeholders on a database so that they will receive all future project-related information and invitations to meetings. The registration sheet includes a section for comments and issues, which allows stakeholders an opportunity to provide the EAP with written comments and feedback.

In total 250 BIDs were produced and distributed by hand delivery. For a copy of the BID please refer to Appendix 6 and for copies for emails sent refer to Appendix 7.

9.3.3 Ongoing Communication

Throughout the process the EAP has communicated with authorities and stakeholders by means of telephone, email, fax and registered mail. All comments received through the process have been documented in the Comment Response Report. This method of communication will be continued throughout the process until a decision is reached by the DARDLEA.

9.3.4 Comment Response Report

Comments and concerns raised during the public participation process during and the EIA process will be compiled into a Comment Response Report. To date no comments or concerns have been raised.

9.3.5 Draft Scoping Report Review

Copies of the Draft Scoping Report will be made available for 30 days for stakeholder and authority review, prior to finalisation and submission of the Final Scoping Report. This provides authorities, stakeholders and I&APs with an opportunity to comment on the Draft Scoping Report and raise their comments and concerns.

9.3.6 Final Scoping Report Submission

All comments and concerns raised during the Draft Scoping Report review period, will be documented in the Final Scoping Report and addressed in the EIA phase. The Final Scoping Report will be submitted to the DARDLEA for decision-making and once approved stakeholders will be informed of the next phase of the public participation process.

10. ANALYSIS OF STAKEHOLDERS

10.1 Who are the Stakeholders?

Through networking and advertising, sixteen I&APs have registered on the proposed project. Refer to Table 7 for a breakdown of the stakeholders registered on the database and Appendix 3 for a list of stakeholders captured in the project database [27].

Table 7 : Breakdown of the stakeholders registered on the database

Representative Sector	Further Explanation	No. of I&APs on Database
Government departments.	All tiers of government e.g. National Government, Provincial Government, Local Government, and parastatal organisations such as ESKOM.	8
Business and consultants.	Local and neighbouring businesses dependant on or affected by activities. Representatives of consulting organisations that provides services in the area.	4
Non-governmental organisations and community based organisations.	Churches, Agricultural Unions, Community Forums and Environmental Non-Government Organisations (NGOs).	0
General public.	Farmers in the area, and individuals who may have an interest in the project.	3

10.2 What is the Stakeholders Capacity to Participate?

The BID's, advertisements and site notices were distributed in English and it is the EAPs opinion that all those on the database have sufficient understanding to participate in the process. To date no requests have been received to communicate in any other language.

11. PLAN OF STUDY FOR THE ENVIRONMENTAL IMPACT ASSESSMENT PHASE

The EIA phase will aim to:

- address any issues that have been highlighted during the Scoping phase;
- evaluate the alternatives for the existing and proposed activities;
- assess all identified impacts to determine the potential significance of the impact; and
- recommend mitigation measures for minimising the significance of each impact.

The EIA phase will comprise of the following activities:

- public participation;
- assessment of alternatives;
- baseline and specialist studies for the existing and proposed activities;
- identification of potential impacts;
- impact assessment;
- identification and description of mitigation measures; and

- reporting and decision-making.

11.1 Public Participation during the Environmental Impact Assessment Phase

The public participation process was initiated during the Scoping phase, but will continue through the EIA phase to keep stakeholders informed of project developments, and to maintain liaison with authorities. During the EIA phase public participation activities will include:

- the registration of any additional I&APs;
- the placement of advertisements in newspapers, as identified during the Scoping phase, notifying I&APs of the public meeting and availability of the Draft EIAR for review;
- the distribution of notification letters to stakeholders informing them of the public meeting and availability of the Draft EIAR for review;
- a public meeting and or focus group meetings, where required, to dispatch project information to stakeholders and facilitate communication between stakeholders and the proponent; and
- communication through letters, email, telephonic conversations with authorities and stakeholders throughout the EIA phase until an EA has been issued.

Copies of the Draft EIAR will be made available for 30 days for stakeholder and authority review, prior to finalisation and submission of the Final EIAR. This provides stakeholders and I&APs with an opportunity to comment on the Draft EIAR and raise their comments.

Once the Final EIAR (including comments received by stakeholders) has been submitted to the DARDLEA a decision will be reached and an EA issued, thereafter stakeholders will be notified of the appeal process in terms of the National Appeals Regulations (GNR 993 (8 December 2014)).

11.2 Baseline Studies

11.2.1 Scope of Investigations

The primary objective of this phase is to collect adequate baseline information to accurately describe the receiving environment. The level of detail for each aspect of the baseline studies will be determined by the level of confidence required for decision-making. The following aspects of the biophysical and socio-economic environments will be considered in the baseline studies:

- climate;
- geology;
- topography;
- soil and land capability;
- land use;
- flora and fauna;
- surface-and-groundwater;
- air quality;
- visual aspects;

- cultural heritage; and
- socio-economic environment.

11.2.2 Methodology

11.2.2.1 Desktop Studies

Desktop studies will be the departure point of data collation of various aspects of the receiving environment. The following published resources will be consulted for this purpose:

- Environmental Potential Atlas (ENPAT);
- 1:50 000 government topocadastral maps;
- 1:10 000 ortho photos;
- Land type maps of the region;
- Municipal Demarcation Board (specifically for socio-economic assessment);
- Statistics South Africa (specifically for socio-economic assessment);
- Integrated Development Plans;
- Spatial Development Frameworks;
- Environmental Management Frameworks;
- Binomial Soil Classification System;
- Red Data Books for fauna and flora;
- WR90 published by the Weather Research Commission; and
- Climate data from the Weather Bureau.

Desktop studies will not be limited to the abovementioned resources. Review of existing reports will be carried out, as well as perusal of all related documentation available from the proponent.

11.2.2.2 Field Visits

Field visits will be undertaken to verify the information collected at desktop study level, and will facilitate:

- the mapping and ground truthing of impact receptor sites;
- the verification of adjacent and current land cover and land use;
- the verification and status of the site; and
- the verification of adjacent land owners and local inhabitants that may be affected by the project.

11.2.2.3 Specialist Studies

Specialists will be appointed to undertake the necessary specialist studies that have been identified during the Scoping phase. The results of the specialist studies will be utilised to inform

the EIA and decision-making process. At this stage, the specialist studies envisaged are listed in Table 8.

Table 8: Specialist Studies Envisaged

Specialist study	Specialist considered	Objective of the study
Technical Review.	Knights Environmental	• Technical Review o Data Gathering – obtain technical information relevant to the proposed unit activities. o Description of the proposed activities. o Review of alternatives. o Assessment of energy, material and water balances.
Air Quality Assessment.	Airshed Planning Professionals (Pty) Ltd.	• A review of project and technical process information. • An analysis of regional climate and atmospheric dispersion and noise attenuation potential of the project area. • A review of legal requirements (emission limits, ambient air quality standards and inhalation health criteria). • A desktop analysis and assessment of existing (baseline) sources of emission and pollutant levels relevant to the assessment. • The establishment of an emissions inventory. Gaseous and particulate emissions of pollutants regulated for this specific listed activity and emitted during the optional phase will be quantified and assessed. Fugitive dust from the construction and decommissioning phases will also be considered. • Atmospheric dispersion simulations in accordance with regulations regarding for dispersion modelling. • A human health risk and nuisance (odour and dust) impact screening assessment based on dispersion simulation results. • Identification of suitable mitigation and management measures. • An AEL application form. • An Air Impact Report.
Noise Impact Assessment.	Airshed Planning Professionals (Pty) Ltd.	• A site visit and short term baseline noise survey. • A review of legal requirements and environmental noise levels. • A desktop analysis and assessment of existing (baseline) sources of noise and results of the short term baseline survey. • The establishment of source inventory. • Noise propagation simulations using CadnaA software for industrial applications. • Impact screening assessment based on simulation results. • Identification of suitable mitigation and management measures. • A specialist noise impact assessment report.

Specialist study	Specialist considered	Objective of the study
Phase 1 Archaeological Impact Assessment	Jaco van der Walt	• To obtain a good understanding of the overall archaeological and cultural heritage conditions of the area through an brief desktop study. • To locate, identify, record, photograph and describe sites of archaeological and cultural importance. • Should any sites be identified to propose a study method forward. • Ensure that all requirements of the local SAHRA are met. • Report on the results of the archaeological and cultural heritage survey adhering to minimum standards as prescribed by the SAHRA and approved by the Association for Southern African Professional Archaeologist (ASAPA).

11.3 Environmental Impact Assessment Methodology

During the EIA phase impacts will be ranked according to the methodology described below. Where possible, mitigation measures will be provided to manage impacts. In order to ensure uniformity, a standard impact assessment methodology will be utilised so that a wide range of impacts can be compared with each other. The impact assessment methodology makes provision for the assessment of impacts against the following criteria:

- significance;
- spatial scale;
- temporal scale;
- probability; and
- degree of certainty.

A combined quantitative and qualitative methodology will be used to describe impacts for each of the aforementioned assessment criteria. A summary of each of the qualitative descriptors along with the equivalent quantitative rating scale for each of the aforementioned criteria is given in Table 9.

In order to make the report easier to read the following notation format is used to highlight the various components of the assessment:

Significance - IN CAPITALS

Spatial Scale - *in italics*

Temporal Scale - <u>in underline</u>

Probability - *<u>in italics and underlined</u>*.

Degree of certainty - **in bold**

Table 9 : Quantitative Rating and Equivalent Descriptors for the Impact Assessment Criteria

Rating	Significance	Spatial scale	Temporal scale	Probability
1	VERY LOW	*Isolated sites/the site*	Incidental	*Practically impossible*
2	LOW	*Study area*	Short-term	*Unlikely*
3	MODERATE	*Local*	Medium-term	*Could happen*
4	HIGH	*Regional/provincial*	Long-term	*Very likely*
5	VERY HIGH	*Global/national*	Permanent	*Going to happen/has occurred*

A more detailed description of each of the assessment criteria is given in the following sections.

11.3.1 Significance Assessment

Significance rating (importance) of the associated impacts embraces the notion of extent and magnitude, but does not always clearly define these since their importance in the rating scale is very relative. For example, the magnitude (i.e. the size) of area affected by atmospheric pollution may be extremely large (1000km^2) but the significance of this effect is dependent on the concentration or level of pollution. If the concentration is great, the significance of the impact would be high or very high, but if it is diluted it would be very low or low. Similarly, if 60ha of a grassland type are destroyed the impact would be very high if only 100ha of that grassland type were known. The impact would be very low if the grassland type was common. A more detailed description of the impact significance rating scale is given in Table 10 below.

Table 10 : Description of the significance rating scale

Rating		Description
5	Very high	Of the highest order possible within the bounds of impacts which could occur. In the case of adverse impacts: there is no possible mitigation and/or remedial activity which could offset the impact. In the case of beneficial impacts, there is no real alternative to achieving this benefit.
4	High	Impact is of substantial order within the bounds of impacts, which could occur. In the case of adverse impacts: mitigation and/or remedial activity is feasible but difficult, expensive, time consuming or some combination of these. In the case of beneficial impacts, other means of achieving this benefit are feasible but they are more difficult, expensive, time consuming or some combination of these.
3	Moderate	Impact is real but not substantial in relation to other impacts, which might take effect within the bounds of those which could occur. In the case of adverse impacts: mitigation and/or remedial activity are both feasible and fairly easily possible. In the case of beneficial impacts: other means of achieving this benefit are about equal in time, cost, effort, etc.
2	Low	Impact is of a low order and therefore likely to have little real effect. In the case of adverse impacts: mitigation and/or remedial activity is either easily achieved or little will be required, or both. In the case of beneficial impacts, alternative means for achieving this benefit are likely to be easier, cheaper, more effective, less time consuming, or some combination of these.
1	Very low	Impact is negligible within the bounds of impacts which could occur. In the case of adverse impacts, almost no mitigation and/or remedial activity is needed, and any minor steps which might be needed are easy, cheap, and simple. In the case of beneficial impacts, alternative means are almost all likely to be better, in one or a number of ways, than this means of achieving the benefit. Three additional categories must also be used where relevant. They are in addition to the category represented on the scale, and if used, will replace the scale.
0	No impact	There is no impact at all - not even a very low impact on a party or system.

11.3.2 Spatial Scale

The spatial scale refers to the extent of the impact i.e. will the impact be felt at the local, regional/provincial, global/national scale. The spatial assessment scale is described in more detail in Table 11.

Table 11 : Description of the spatial rating scale

Rating		Description
5	Global/national	The maximum extent of any impact.
4	Regional/provincial	The spatial scale is moderate within the bounds of impacts possible, and will be felt at a regional scale (district municipality to provincial level).
3	Local	The impact will affect an area up to 5km from the site.
2	Study area	The impact will affect an area not exceeding the boundary of the site.
1	Isolated sites/the site	The impact will affect an area no bigger than the facility.

11.3.3 Temporal Scale

In order to accurately describe the impact it is necessary to understand the duration and persistence of an impact in the environment. The temporal scale is rated according to criteria set out in Table 12.

Table 12 : Description of the temporal rating scale

Rating		Description
1	Incidental	The impact will be limited to isolated incidences that are expected to occur very sporadically.
2	Short-term	The environmental impact identified will operate for the duration of the construction phase or a period of less than five years, whichever is the greater.
3	Medium-term	The environmental impact identified will operate for the duration of life of project/operation.
4	Long-term	The environmental impact identified will operate beyond the life of project/operation.
5	Permanent	The environmental impact will be permanent.

11.3.4 Degree of Probability

Probability or likelihood of an impact occurring will be described as shown in Table 13 below.

Table 13 : Description of the degree of probability of an impact occurring

Rating	Description
1	Practically impossible.
2	Unlikely.
3	Could happen.
4	Very likely.
5	Going to happen/has occurred.

11.3.5 Degree of Certainty

As with all studies it is not possible to be 100% certain of all facts, and for this reason a standard "degree of certainty" scale is used as discussed in Table 14. The level of detail for specialist studies is determined according to the degree of certainty required for decision-making. The impacts are discussed in terms of affected parties or environmental components.

Table 14 : Description of the degree of certainty rating scale

Rating	Description
Definite	More than 90% sure of a particular fact.
Probable	Between 70 and 90% sure of a particular fact, or of the likelihood of that impact occurring.
Possible	Between 40 and 70% sure of a particular fact or of the likelihood of an impact occurring.
Unsure	Less than 40% sure of a particular fact or the likelihood of an impact occurring.
Can't know	The EAP believes an assessment is not possible even with additional research.
Don't Know	The EAP cannot, or is unwilling, to make an assessment given available information.

11.3.6 Quantitative Description of Impacts

To allow for impacts to be described in a quantitative manner in addition to the qualitative description given above, a rating scale of between 1 and 5 was used for each of the assessment criteria. Thus, the total value of the impact is described as the function of significance, spatial and temporal scale as described below:

$$\text{Impact rating} = \left(\frac{\text{Significance} + \text{Spatial} + \text{Temporal}}{3}\right) \times \frac{\text{Probability}}{5}$$

An example of how this rating scale is applied is shown below in Table 15:

Table 15 : Example of impact rating scale

Impact	Significance	Spatial scale	Temporal scale	Probability	Rating
Impact to air	LOW	*Local*	Medium-term	*Could happen*	
	2	3	3	3	1.6

Note: The significance, spatial and temporal scales are added to give a total of 8, that is divided by 3 to give a criteria rating of 2.67. The probability (3) is divided by 5 to give a probability rating of 0.6. The criteria rating of 2.67 is then multiplied by the probability rating (0.6) to give the final rating of 1.6.

The impact risk is classified according to five classes as described in Table 16.

Table 16 : Impact risk classes

Rating	Impact class	Description
0.1 – 1.0	1	Very low.
1.1 – 2.0	2	Low.
2.1 – 3.0	3	Moderate.
3.1 – 4.0	4	High.
4.1 – 5.0	5	Very high.

Therefore with reference to the example used for air quality above, an impact rating of 1.6 will fall in the Impact Class 2, which will be considered to be a low impact.

11.3.7 Cumulative Impacts

In terms of EIA Regulations it is a requirement that the EIA phase take cognisance of cumulative impacts. In fulfilment of this requirement, the impact assessment will take cognisance of any existing impact sustained by the operations, any mitigation measures already in place, any additional impact to environment through continued and proposed activities, and the residual impact after mitigation measures.

It is important to note that cumulative impacts at national or provincial level will not be considered in this assessment, as the total quantification of external companies on resources is not possible at the project level due to the lack of information and research documenting the effects of existing activities. Such cumulative impacts that may occur across industry boundaries can also only be effectively addressed at a provincial and national government level.

12. UNDERTAKING OR AFFIRMATION BY THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

I, Paula Jane Tolksdorff, declare that:

I will ensure that information containing all relevant facts in respect of the application is distributed or made available to I&APs and the public, and that participation by I&APs is facilitated in such a manner that all I&APs will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;

I will ensure that the comments of all I&APs are considered and recorded in reports that are submitted to the competent authority in respect of the application,

I will ensure that the plan of study for undertaking the EIA will be clearly communicated with the I&APs to ensure that everyone involved is aware and in agreement in terms of the plan of study,

I will ensure that all specific information required by the competent authority is included and addressed in the reports, and

I will ensure that any other matter required in terms of section 24(4)(a) and (b) of the Act is complied with.

Signature

Date: 9 November 2016

13. WAY FORWARD

This Draft Scoping Report contains:

- A description of the existing and proposed activities.
- A description of the alternatives considered to date.
- An outline of the proposed process to be followed.
- Information on the proponent, EAP and stakeholders who have chosen to participate in the project.
- An outline of the environment in which the projects fall.
- Information on the potential environmental impacts to be studied in more detail during the EIA phase of the project.
- Information on the proposed specialist studies to be undertaken.
- Information on the comments and concerns raised to date.

You are hereby invited to review the Draft Scoping Report that is available for public review from 10 November 2016 to 10 December 2016. Please note that substantiated issues and comments must be submitted in writing to Terra Pacis before 10 December 2016. It would be appreciated if comments could be made well within this period in order for us to address these comments appropriately.

If you have any further enquiries, please feel free to contact:

Terra Pacis –Attention Paula Tolksdorff
P.O. Box 41409, Craighall, Johannesburg, 2024, South Africa
Tel: (011) 781 7800
Fax: (011) 086 528 7418;
E-mail: paula@terrapacis.co.za

After the Draft Scoping Report comment period the report will be updated with comments received and a Final Scoping Report will be submitted to the delegated lead authorities responsible for authorising this project, in this case the DARDLEA, who will consider the findings in consultation with various other authorities and issue a decision to proceed onto the next phase, that being the EIA phase.

Appendix 1 : List of Abbreviations

Abbreviation	Description
AEL	Atmospheric Emissions Licence
AIR	Air Impact Report
AQMP	Air Quality Management Plan
ASAPA	Association for Southern African Professional Archaeologist
BA	Basic Assessment
B-BBEE	Broad Based Black Economic Empowerment
BID	Background Information Document
The Constitution	The Constitution of the Republic of South Africa (No. 108 of 1996)
CCGT	Combined Cycle Gas Turbine
CRR	Comment Response Report
CSTR	Continuous Stirred Tank Reactors
DARDLEA	The Mpumalanga Department of Agriculture, Rural Development, Land and Environmental Affairs
DEA	Department of Environmental Affairs
DWAF	Department of Water Affairs and Forestry
DWS	Department of Water and Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
ECA	Environment Conservation Act (No. 73 of 1989)
EIA	Environmental Impact Assessment
EIA Regulations	Government Notice Regulation 982 (4 December 2014) in terms of the NEMA
EIAR	Environmental Impact Assessment Report
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme Report
ENPAT	Environmental Potential Atlas
GDP	Gross Domestic product
GNR 805	Government Notice Regulation 802 (10 October 2012) in terms NEMA
GNR 807	Government Notice Regulation 807 (10 October 2012) in terms of NEMA
GNR 839	Government Notice Regulation 839 (22 November 2013) in terms of NEM:AQA
GNR 891	Government Notice Regulation 891 (20 October 2014) in terms of NEMA
GNR 892	Government Notice Regulation 892 (4 December 2014) in terms of NEMA
GNR 921	Government Notice Regulation 921 (29 November 2013) in terms of NEM:WA
GNR 926	Government Notice Regulation 926 (29 November 2013) in terms of NEM:WA
GNR 982	Government Notice Regulation 982 (4 December 2014) in terms of NEMA
GNR 983	Government Notice Regulation 983 (4 December 2008) in terms of NEMA
GNR 984	Government Notice Regulation 984 (4 December 2014) in terms of NEMA
GNR 985	Government Notice Regulation 985 (4 December 2014) in terms of NEMA
GNR 993	Government Notice Regulation 993 (8 December 2014) in terms of NEMA
HPA	Highveld Priority Area
HF	Hydrofluoric Acid
IAIAsa	International Association for Impact Assessment (South Africa)
I&APs	Interested and Affected Parties

IAP2	International Association for Public Participation
IDP	Integrated Development Plan
IEMA	The Institute of Waste Management of Southern Africa
IWMSA	The Institute of Environmental Management and Assessment (In progress)
LAN	Limestone Ammonium Nitrate
Ltd	Limited
MES	Minimum Emission Standards
NEMA	National Environmental Management Act (No. 107 of 1998)
NEM:AQA	National Environmental Management: Air Quality Act (No. 39 of 2004)
NEM:WA	National Environmental Management: Waste Act (No. 59 of 2008)
NGOs	Non-Governmental Organisations
NHRA	National Heritage Resources Act (No. 25 of 1999)
NO_x	Substance consisting of one nitrogen atom and any amount of oxygen atoms (represented by the $_x$)
NWA	National Water Act (No. 36 of 1998)
OHSA	Occupational Health and Safety Act (No. 85 of 1993)
PAs	Protected Areas
PM_{10}	Particulate matter less than ten microns
Pty	Propriety
SAHRA	South African Heritage Resources Agency
S&EIR	Scoping and Environmental Impact Reporting
SS	Stainless Steel
Terra Pacis	Terra Pacis Environmental (Pty) Ltd
TDS	Total Dissolved Solids
Sonskyn	Sonskyn Kunsmis (Pty) Ltd
Hi-Fos	Hi-Fos (Pty) Ltd
WA	Water Act (No. 54 of 1956)
WMA	Water Management Area
WUL	Water Use Licence
WULA	Water Use Licence Application
CaF_2	Solid Calcium Fluoride
CN4	Crystallisation
CNL	Calcium Nitrate Liquid
CNX	Calcium Ammonium Nitrate Plant
K	Potassium
MagAmP	Magnesium Ammonium Phosphate
MAP 33	Pure Ammonium Phosphate
MAP 39	Pure Ammonium Phosphate Plant
N	Nitrogen
O	Oxygen
P	Phosphorus
PM	Particulate Matter
S	Sulphur
SO_2	Sulphur dioxide
TDS	Total Dissolved Solids
°C	Degrees Centigrade
ha	hectare
mm	Millimetres

m	Metre
km	Kilometres
km^2	kilometres squared
km/h	Kilometres per hour
m^2	Metre squared
m^3	Metres cubed
mamsl	Metres above mean sea level
a	Annum
h	Hour
h/a	Hours per Annum
dB(A)	Decibel A-Weighting
dB	Decibels
ppp	Parts per million
T_{max}	Maximum Temperature
T_{min}	Minimum Temperature
T_{avg}	Average Temperature
/	per
%	Percent

Appendix 2 : Terra Pacis Curriculum Vitae

Curriculum Vitae

Paula Jane Tolksdorff

Paula Tolksdorff, a Civil Engineering Technologist, has over 15 years experience in management of the civil and environmental components in the mining, civil and industrial sectors. In addition to this, she has more than 10 years experience in the environmental field and is in the process of acquiring her MSc in Environmental Management from the North West University, Potchefstroom. Her experience includes project management and compilation of Scoping and Environmental Impact Reporting (S&EIR), Water Use License applications, the design, construction and implementation of water balances, contaminated and uncontaminated water drainage analysis, implementation of Environmental Management Systems aligned to ISO14001, and undertaking mine Environmental Management Programme reports. Paula is Managing Director of Terra Pacis Environmental.

NATIONALITY	South African.
PROFESSION	Managing Director of Terra Pacis Environmental (Pty) Ltd.
KEY RELEVANT EXPERIENCE	**2005(Dec)-Present** Terra Pacis Environmental (Pty) Ltd – Managing Director • Environmental Training and Awareness. • Environmental Audits and Liability Assessments. • Environmental Project Management. • Environmental Impact Assessments. • Environmental Management Programmes. • Environmental Risk Assessments. • Environmentally Related Permit/Licence Applications. • Environmental Management Plans and their Implementation through Environmental Management Systems. • ISO 14001 Environmental Management Systems Implementation and Auditing. • The Development of Standard Operating Procedures. • Public Participation. **2006(Jul)-2009(Feb)** Cymbian Environmental and Social Consulting Services – Director. **2005(Jan)-2008** Contract to: Golder Associates Africa Pty Ltd – Environmental Consultant. **2005(Jul)-2005(Nov)** ERM Southern Africa, Johannesburg – Snr Environmental Consultant. **1998(Jul)-2005(Jul)** Contract to: Anglo Gold Ashanti Limited, Johannesburg – Environmental Consultant. **2003(Apr)-2004(Apr)** Contract to: Debswana - Environmental Consultant.

	1996(Oct)–1998(Jul) Anglo American, Johannesburg – Civil Engineering Technician and Environmental Consultant. **1996(Mar)–1996(Oct)** Hamilton Associates, Rosebank – Civil Engineering Technician. **1990-1996(Mar)** Stuart Scott Incorporated, Sandton – Civil Engineering Technician.
OTHER SKILLS	• Microsoft Windows (including Excel, Word, PowerPoint, Project). • Autocad and Microstation. • Visio. • Communication. • Interpersonal skills. • Effective team worker. • Report writing. • Presentations. • Multitasking. • Analytical skills. • Dependability.
EDUCATION	**Current** MSc in Environmental Management from the North West University, Potchefstroom **1997** Baccalaureus Technologiae, Engineering Civil, Urban and Rural Development, Technikon Witwatersrand. **1994** National Higher Diploma: Civil Engineering, Technikon Witwatersrand. **1993** National Diploma: Civil Engineering, Technikon Witwatersrand.
SHORT COURSES	**2011** ISO 14001 Environmental Management Systems (EMS) Implementation and Auditing. **2009** IEMA Approved Foundation Course in Environmental Auditing (South Africa). IEMA Approved Carbon Footprint Management Course: An Introductory Programme The International Association for Public Participation: • Planning for Effective Participation. • Communication for Effective Participation. • Techniques for Effective Participation. **2006** National Environmental Management Act Environmental Impact Assessment Regulations.

PROFESSIONAL REGISTRATIONS	• IAP2 – International Association for Public Participation. • IAIAsa - International Association for Impact Assessment (South Africa). • IWMSA- The Institute of Waste Management of Southern Africa. • IEMA- The Institute of Environmental Management and Assessment (In progress).

Curriculum Vitae

Nicoletta Maria Rita Maraschin

Nicoletta Maraschin graduated from the University of the Witwatersrand with an Msc in Geography in 2016. Nicoletta is currently a Junior Environmental Consultant at Terra Pacis. Nicoletta's roles and responsibilities include compilation of Basic Assessment reports and S&EIRs.

NATIONALITY	South African.
PROFESSION	Junior Environmental Consultant at Terra Pacis Environmental (Pty) Ltd.
KEY RELEVANT EXPERIENCE	**2016(Sept)-Present** Terra Pacis Environmental (Pty) Ltd – Junior Environmental Consultant • Environmental Impact Assessments • Stakeholder Engagement • Water Use Licence Application **2013(Jan-Dec)** University of the Witwatersrand - First Year Geography Tutor • As a tutor you are required to teach and coordinate a weekly tutorial session, which forms part of the first year geography syllabus. These tutorials are provided for the students to interact and allow them a secondary option for assistance. **2012(July-Dec)** University of the Witwatersrand - Second year Archaeology Tutor • As a second year tutor I assisted with archaeological practicals in the Braamfontein cemetery. This practical work included surveying the cemetery and using a handheld GPS. This also included some basic GIS practical work using ArcGIS.
OTHER SKILLS	• Microsoft Windows (including Excel, Word, PowerPoint) • Report writing. • Effective team worker. • Multitasking. • Dependability. • Communication. • Presentations. • Analytical skills.
EDUCATION	**2016** Msc (Geography) Dissertation Title: Faunal distribution in lreation to rainfall patterns in the Kalaharu Gemsbok National Park: 2004-2013 **2013** Bsc (Hons) Geography **2012** BA (Archaeology and Geography)
SHORT COURSES	**2013**

	University Tutoring Course
AWARDS	**2012** Post Graduate Merit Award for Bsc Honours **2011** Certificate of First Class for Archaeology 2 **2010** University of the Witwatersrand first year geography award: • Dr Meshak Khosa Award, which is awarded to the top first year student enrolled for Geography 1 in 2010 **2010** This award is offered to the stufdent when achieved an average score of above 65% for the respective year of study

Appendix 3 : List of Stakeholders

Title	Initials	Surname	Organisation/Firm	Position
Mayor	LRBD	Dhlamini	Local government	Executive Mayor of Lekwa
Mr.	LT	Tshabalala	Local government	Municipal Manager
Mayor	MGC	Chirwa	District government	Executive Mayor of Gert Sibande
Mr.	CAH	Habile	District government	Municipal Manager
Mr.	MM	Mahlangu	Local government	Ward Councillor
Ms.	LM	Mpanya	Standerton Public Library	Librarian
Mr.	AB	Bowker	Land Owner	Stakeholder

Appendix 4 : Advertisements

Community vows to fight crime during Festive Season

STANDERTON - Angry members of the community in Extension 6 took a resolution to fight crime to the bitter end during the Festive Season. They have sent a stern warning to criminals saying that they will not be kept from living normal safe lives. "Enough is enough," they declared during a community Imbizo held at Vodacom RDP Section on Tuesday, 25 October.

In a joint statement with members of the Community Policing Forum (CPF), they vowed to leave no stone unturned to track down criminals during the festive season. They told police that if perpetrators are served with apt justice they will take the law into their own hands. The community meeting was one of many Imbizos that the police and CPF have initiated to bring awareness.

Police and CPF members address residents during a community Imbizo in Extension 6.

House breaking and theft is increasingly becoming a nightmare for the community. Alcohol and drug abuse is a major source of crime and the community urged police to clamp down on illegal liquor operators and arrest drug dealers. The community registered their concern about the justice system - they accused the courts of protecting the rights of perpetrators more than those of the victim and they called on the government for urgent transformation of our justice system.

Police also appealed to members of the community to provide information that will lead to the arrest and successful conviction of the drug dealers and other criminal elements within the society.

Members of the CPF in partnership with police will continue to embark on awareness campaigns and Imbizos that are scheduled as follows: Tuesday, 1 November, at Thuto-Thebe Secondary School area at 17:00; Thursday, 3 November at Extension 7 next to the Church Of Jesus at 17:00; Tuesday, 8 November, at the sports grounds in Mahala Park at 17:00, Thursday, 10 November, in Extension 6 next to Binda Liquor Store at 17:00; Tuesday, 15 November, at Sfiso-Setho Primary School at 17:00 and Thursday, 17 November, at the Eskom Hall in Flora Park at 17:00. Members of the community are urged to attend in their numbers in the fight against crime. ***DM***

Kalies wys top-presteerders aan

Laerskool Kalie de Haas het Maandag, 31 Oktober, hul toppresterende akademiese leerlinge van die derde kwartaal bekendgestel en, soos oudergewoonte, 'n top 10-lys vir die gr 4- tot 7-leerlinge saamgestel. Agter, van links na regs, is die nommer-een leerling van elke graad – Marli Wolmarans (94%, gr 5) en Anja Sutherland (92%, gr 7) en voor is Jasmyn Archer (90,57%, gr 4) en Charné Fourie (93%, gr 6).

Bravo, maestro!

Nadia Cronjé, 'n leerling van Standerton Akademie, het vanjaar haar viooleksamen aan Trinity College London met 'n spoggerige 87% onder leiding van haar afrigter, me Anke Holtzhausen van Laerskool Kalie de Haas, geslaag. Die praktiese eksamen is op 7 Oktober afgelê in Randburg waar Cronjé die beoordelaars met haar talent verstom het.

Life is like photography, we use the negatives to develop!

Local man turns to spiritual calling

STANDERTON - From political activism to the pulpit. Dumisani Nkonde tendered his letter of resignation from the Civic Voice on Monday, 31 October, with immediate effect. He is now a devoted Christian who leads D-Elijah church in Extension 6. He will be remembered as the active leader of SANCO alongside Nicholas Selepe.

Both were loyal members of the ANC alliance, but their vocal stand against their alliance partner where they led several marches calling for the removal of the former Executive Mayor Matsidiso Morajane and the Municipal Manager, Linda Tshabalala, led to their dismissal from the ANC and later on formed their own party, Civic Voice, that contested the local elections for the first time on the opposite side in August. Nkonde was employed as a traffic officer at Lekwa Municipality and his involvement with SANCO led to his dismissal from work.

He made an appeal for unfair dismissal with the CCMA and won. The municipality was ordered to reinstate him, but Nkonde opted to resign. He told the media when

Dumisani Nkonde is a changed man. He has made the change from politician to preacher and has also released three gospel albums.

he visited the offices of Cosmos News on Monday, 31 October, that he is going to focus on his spiritual calling.

During the past year he was able to record two albums where he is able to spread the ministry through music. His second single is titled 'Victory' and it speaks of his long journey on the wrong path, but the love of God gave that he could overcome all the challenges and emerged victorious.

Nkonde's third album released in September is titled 'Fear Not.' ***DM***

SCOPING AND ENVIRONMENTAL IMPACT REPORTING (S&EIR) PROCESS AND WATER USE LICENCE (WUL) APPLICATION PROCESS FOR HI-FOS (PTY) LTD PROPOSED PHOSPHORIC ACID PLANT, STANDERTON, MPUMALANGA

Sonskyn Kunsmis (Pty) Ltd supplies liquid and blended solid fertilizers to farms in the area of Standerton, Mpumalanga. In this regard Sonskyn purchase raw materials from suppliers throughout Southern Africa to produce the liquid fertilizer.

The objective of the proposed Hi-Fos (Pty) Ltd Phosphoric Acid Plant is to construct and operate the following:

- Phosphoric Acid Plant.
- Calcium Ammonium Nitrate (CNX) Plant.
- Pure Mono Ammonium Phosphate Plant (MAP 39).
- Mono Ammonium Phosphate (MAP 33).

And to move the Granular Fertilizer Blending Plant from Sonskyn Kunsmis (Pty) Ltd in Standerton to the new Hi-Fos (Pty) Ltd site.

The following Environmental Authorisations (EAs) are required for the construction and operation of the Phosphoric Acid Plant.

NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NO. 107 OF 1998)

EA in terms of section 24(2) and 24D of the NEMA is required for the following listed activities identified in terms of GNR 983 (4 December 2014):

Activity 24: *The development of-*
- *(i) a road for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or*
- *(ii) a road with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 meters*

but excluding –
- *(a) roads which are identified and included in activity 27 in Listing Notice 2 of 2014;*
- *(b) or roads where the entire road falls within an urban area.*

EA in terms of section 24(2) and 24D of the NEMA is required for the following listed activities identified in terms of GNR 984 (4 December 2014):

Activity 4: *The development 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 more than 500 cubic metres.*

Activity 6: *The development of facilities or infrastructure for any process or activity which requires a permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent, excluding-*
- *(i) activities which are identified and included in Listing Notice 1 of 2014;*
- *(ii) activities which are 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 National Environmental Management: Waste Act, 2008 applies; or*
- *(iii) the development of facilities or infrastructure for the treatment of effluent, wastewater or sewage where such facilities have a daily throughput capacity of 2000 cubic metres or less.*

NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT (NO. 39 OF 2004)

An AEL is required in terms of section 37 of the National Environmental Management: Air Quality Act (No. 39 of 2004) (NEM:AQA) in respect of the following activity identified in GNR 839 (22 November 2013):

Category 7 *Inorganic Chemicals Industry, Subcategory 7.3: Production of Chemical Fertilizer.*

NATIONAL WATER ACT (NO. 36 OF 2004)

A WUL is required in terms of section 40(1) of the NWA for the following water uses listed in section 21 of the NWA:

Section 21(a): *Taking water from a water resource.*
Section 21(b): *Storing water.*
Section 21(g): *Disposing of waste in a manner which may detrimentally impact on a water resource.*

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

The Norms and Standards, GNR 926 (29 November 2013), provide minimum standards for the design and operation of new and existing waste storage facilities, without the need to undertake an EA process.

Category C (Norms and Standards in terms of GNR 926 (29 November 2013)):

Activity 5(1): *The 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 general waste in lagoons or temporary storage of such waste.*

Activity 5(2): *The storage of hazardous waste at a facility that has the capacity to store in excess of 80m^3 of hazardous waste at any one time, excluding the storage of hazardous waste in lagoons or temporary storage of such waste.*

INVITATION TO REGISTER AS AN INTERESTED AND AFFECTED PARTY (I&AP)

Terra Pacis Environmental (Pty) Ltd (Terra Pacis) has been appointed as the independent environmental assessment practitioner, to manage the S&EIR and the WUL application processes. These processes include the consultation with parties that may be affected by, or have an interest, in the project. Parties wishing to formally register as interested and affected parties (I&APs) in order to offer their comment on the proposed project are requested to forward their full contact details before 9 December 2016 to the contact details below. Registered I&APs will be forwarded all future correspondence, and notified individually of additional opportunities to participate in the process.

INVITATION TO REGISTER AS AN INTERESTED AND AFFECTED PARTY (I&AP) AND TO COMMENT ON THE DRAFT SCOPING REPORT

You are hereby invited to review and pass comments on the Draft Scoping Report for the abovementioned project. The Draft Scoping Report will be available for review at the following locations from 9 November 2016 to 9 December 2016.

PLACE	STREET	TELEPHONE
Sonskyn Kunsmis (Pty) Ltd	Minnaar Street 2, Standerton	017 712 7020
Standerton Public Library	Corner Andries Pretorius and Piet Retief Street	017 712 9600
Terra Pacis	www.terrapacis.co.za	011 781 7800

Please note that substantiated issues and comments must be submitted in writing to Terra Pacis before 9 December 2016. It would be appreciated if the comments could be made well within this period in order for us to address these comments appropriately.

Terra Pacis Environmental (Pty) Ltd
Contact Details: Paula Tolksdorff
PO BOX 41409, CRAIGHALL, JOHANNESBURG, 2024
Tel: (011) 781 7800; Fax: 086 528 7418;
E-mail: paula@terrapacis.co.za

702 Creditors/Debtors

TAUNYANE M. S.

ESTATE OF THE LATE: TAUNYANE: MAISI STEPHEN. ESTATE NO: 2677/2014. PROVINCE: GAUTENG. DATE OF BIRTH: 1952/09/19. ID NO: 520919 5667 086. LAST ADDRESS: 9709 ESAT PARK, KAGISO. DATE OF DEATH: 2015/01/01. MASTER'S OFFICE: JOHANNESBURG. SURVIVING SPOUSE: JOGI JACOBETH TAUNYANE. DATE OF BIRTH: 1955/04/13. I.D. NO: 550413 0672 088.

All persons having claims against the abovementioned Estate are required to lodge their claims with the undersigned within 30 days after the date of the publication hereof.

MOTLANTHE ATTORNEYS
P.O BOX 1012
ROODEPOORT, 1725
TEL: 011 760 3724
(STAR 10487011)

TSHIKUVHE P.

ESTATE OF THE LATE
TSHIKUVHE: PHILLIP, ESTATE NO: 022592/2016, PROVINCE: GAUTENG, DATE OF BIRTH: 1962-08-25, I.D. NO: 620825 5867 08 0, LAST ADDRESS: 3219 VUNDLA DRIVE, ROCKVILLE, JOHANNESBURG, DATE OF DEATH: 2001-04-08, MASTER'S OFFICE: JOHANNESBURG
All persons having claims against the above mentioned estate must lodge it with the Executor concerned within 30 days from date of publication hereof.

KHAN & ASSOCIATES
PO BOX 6062
LENASIA NORTH, 1838
TEL: (011) 211-6717
(STAR 10494210)

VAN EMMENIS J. A.

ESTATE OF THE LATE
JAN ADRIAAN VAN EMMENIS, I.D. NO: 240101 5011 08 1, in life married in community of property to LEA JACOBA VAN EMMENIS, I.D. NO: 4507416 0009 08 0, and deceased on 23 JUNE 2010, ESTATE NO: 8090/2016 (JOHANNESBURG)
Creditors and Debtors are herewith requested to file their claims and pay their debts at the under mentioned address within a period of 30 (thirty) days from date of publication hereof.

(SGD) A G SMUTS FOR A G SMUTS & PARTNERS
FORUM
631 VOORTREKKER ROAD
PO BOX 743
BRAKPAN, 1540
TEL: (011) 740-1530
REF: MR SMUTS / GM / D534
(STAR 10494879)

WATSON A. T.

ESTATE OF THE LATE
WATSON: ALISTAIR THEODORE, ESTATE NO: 022801/2016, PROVINCE: GAUTENG, DATE OF BIRTH 1953-12-30, I.D. NO: 531230 5039 08 7, LAST ADDRESS: 84 DAVID STREET, MEREDALE, JOHANNESBURG, 2091, DATE OF DEATH: 2016-06-11, MASTER'S OFFICE: JOHANNESBURG SURVIVING SPOUSE: RACHAEL WATSON, DATE OF BIRTH: 1957-07-04, I.D. NO: 570704 0142 08 0
All persons having claims against the above mentioned estate must lodge it with the Executor concerned within 30 days from date of publication hereof.

RACHAEL WATSON
84 DAVID STREET
MEREDALE
JOHANNESBURG, 2091
(STAR 10490273)

WILSON. J.

ESTATE OF THE LATE
WILSON: JOHN. ESTATE NO: 023036/2016. MASTER'S OFFICE: JOHANNESBURG, DATE OF BIRTH: 26 SEPTEMBER 1946. I.D. NO: 460926 5076 186, LAST ADDRESS: 263 SANTA FE BOULEVARD, BLUE SADDLE RANCHES, RANDVAAL, MIDVAAL, JOHANNESBURG, GAUTENG. DATE OF DEATH: 3 AUGUST 2016.
All persons having claims against the abovementioned Estate must lodge it with the Executor concerned within 30 days from the date of publication hereof.

FRANK BOTHA & VICKERS ATTORNEYS
PO BOX 2859
PARKLANDS, 2121
TEL: (011) 791-4237
(star 10490911)

ZWANE. M.

ESTATE OF THE LATE
ZWANE: MOMOMO. ESTATE NO: 023960/2016. PROVINCE: GAUTENG, DATE OF BIRTH: 1953-01-11. ID NO: 530111 5362 086, LAST ADDRESS: 24 11TH AVENUE WELGEDACHT, SPRINGS, 1559, GAUTENG, DATE OF DEATH: 2016-07-24. MASTER'S OFFICE: JOHANNESBURG.

All persons having claims against the abovementioned estate must lodge it with the Executor concerned within within 30 days from date of publication hereof.

A. J. M. M. CRICHTON
LIVINGSTONE CRICHTON ATTORNEYS
98 11TH STREET
PARKMORE
SANDTON
TEL: (011) 884-8334
(STAR 10490918)

703 First/Final Notices

AHMED M. S.

ESTATE OF THE LATE
AHMED: MAHOMED SALIM, ESTATE NO: 27651/2010, PROVINCE: GAUTENG, I.D. NO: 520508 5127 08 2, LAST ADDRESS: 30 ZENTH STREET, EXTENSION 13, LENASIA
MAGISTRATE'S OFFICE: JOHANNESBURG
MASTER'S OFFICE: JOHANNESBURG
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

AASHIA SALOOJEE INC.
PO BOX 2277
LENASIA, 1820
TEL: (011) 852-4468
(STAR 10495194)

AHMED S. B.

ESTATE OF THE LATE
AHMED: SHARIFA BEE, ESTATE NO: 40201/2014, PROVINCE: GAUTENG, I.D. NO: 360527 0296 08 3, LAST ADDRESS: 30 ZENTH STREET, EXTENSION 13, LENASIA
MAGISTRATE'S OFFICE: JOHANNESBURG
MASTER'S OFFICE: JOHANNESBURG
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

AASHIA SALOOJEE INC.
PO BOX 2277
LENASIA, 1820
TEL: (011) 852-4468
(STAR 10495200)

ASKEW J. A.

ESTATE OF THE LATE
ASKEW: JUNE AUDREY, ESTATE NO: 36159/2014, PROVINCE: GAUTENG, I.D. NO: 380623 0004 08 4, LAST ADDRESS: 31 EVELYN AVEUE, BORDEAUX, GAUTENG
MAGISTRATE'S OFFICE: RANDBURG
MASTER'S OFFICE: JOHANNESBURG
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

NERINA WESSELS ATTORNEY
PO BOX 3423
PINEGOWRIE, 2123
TEL: 082-560-9479
(STAR 10494842)

CAMERON K.

ESTATE OF THE LATE
CAMERON: KATHLEEN, ESTATE NO: 018544/2016, PROVINCE: GAUTENG, I.D. NO: 340420 0047 08 3, LAST ADDRESS: ARBOR RETIREMENT VILLAGE, SMITH ROAD, BEDFORDVIEW, 2008
MASTER'S OFFICE: MASTER OF THE SOUTH GAUTENG HIGH COURT
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

SMIT & BOOYSEN ATTORNEYS
65 LINKSFIELD ROAD
DOWERGLEN, EDENVALE
TEL: (011) 453-7505
(STAR 10494177)

CLARKE A. M.

ESTATE OF THE LATE
CLARKE: ALICE MARY, ESTATE NO: 005268/2015, PROVINCE: GAUTENG, I.D. NO: 470727 0106 08 7, LAST ADDRESS: EDENHAVEN, 11B FRAIL CARE, CEN VAN RIEBEEK STREET & 12TH AVENUE, EDENVALE
MAGISTRATE'S OFFICE: GERMISTON
MASTER'S OFFICE: PRETORIA
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

GROVEWOOD ADMINISTRATION SERVICES CC
PO BOX 3626
DAINFERN, 2055
TEL: (011) 708-3737
(STAR 10494215)

CRONJE J. M.

ESTATE OF THE LATE
CRONJE: JOHANNA MAGDALENA, ESTATE NO: 014064/2016, I.D. NO: 291007 0005 08 5, LAST ADDRESS: EDENVALE OLD AGE HOME, 12TH STREET, EDENVALE
The FIRST AND FINAL Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of the publication hereof, at the Magistrate's Office, GERMISTON.

B. I. PHILLIPS
EFPS/BG
70 First Avenue
Dunvegan, Edenvale
Tel: (011) 453-8670
(STAR 10494980)

DE RIJK J.

ESTATE OF THE LATE
DE RIJK: JAN, ESTATE NO: 24420/2014, PROVINCE: GAUTENG, I.D. NO: 391108 5038 18 5, LAST ADDRESS: 25 SMIT STREET, ELSBURG, GERMISTON
MAGISTRATE'S OFFICE: GERMISTON
MASTER'S OFFICE: PRETORIA
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (AMENDED FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

GROVEWOOD ADMINISTRATION SERVICES CC
PO BOX 3626
DAINFERN, 2055
TEL: (011) 708-3737
(STAR 10494187)

DOMONEY A. P.

ESTATE OF THE LATE
DOMONEY: ANDRE PIERRE ESTATE NO: 006847/2016, PROVINCE: GAUTENG, I.D. NO: 690606 5026 08 2, LAST ADDRESS: 18 CITRUS COURT, NAARTJIE STREET, GREENHILLS, RANDFONTEIN, 1759 SURVIVING SPOUSE: NATASHA DOMONEY, I.D. NO: 810630 0120 08 3
MAGISTRATE'S OFFICE: RANDFONTEIN
MASTER'S OFFICE: JOHANNESBURG
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

NL ADMINISTRATION SERVICES
PO BOX 2259
HONEYDEW, 2040
TEL: (011) 791-4015
(STAR 10495038)

DU PLESSIS J. W. E.

In the Estate of the Late JOHN WILLIAM EDWARD DU PLESSIS (ID NO: 430323 5075 086), of 1 PLUTO STREET, FISHER HILL, GERMISTON, GAUTENG, who died there on 02nd APRIL 2016

ESTATE NO: 9558/2016

NOTICE IS HEREBY GIVEN that the First and Final Liquidation and Distribution Account in the above estate will lie for inspection at the offices of the Master of the High Court, JOHANNESBURG and the Magistrate's Court, GERMISTON for a period of Twenty One (21) days from date of publication hereof.

Dated at JOHANNESBURG this 04 NOVEMBER 2016.

EXECUTRIX TESTAMENTARY
T M Du Plessis
PO Box 3785
EDENVALE
1610
(STAR 10490914)

FNB First National Bank

Estate of the Late ARNDT cHRISTO ENGELBRECHT, who died on 02 FEBRUARY 2015. Identity Number 630924 5104 087, of 15 GOLDWATER DRIVE, ROBINA, QUEENSLAND, AUSTRALIA.
ESTATE NUMBER: 23706/2015 (JOHANNESBURG)

The First & Final Liquidation and Distribution Account in the above estate will lie for inspection at the offices of the Master of the High Court, JOHANNESBURG, for **twenty-one (21) days** from date of publication hereof.

FNB Fiduciary (Pty) Ltd
P O Box 27521
Greenacres
6057
(STAR 10490561)

FNB First National Bank

Estate of the Late CYNTHIA NOKUFIKA TAUO died on 07 NOVEMBER 2009. Identity Number 520405 0657 082, of 2637 MAKHOLEGO STREET, SPRUITVIEW GARDENS, GERMISTON ESTATE NUMBER: 10399/2010

The First & Final Liquidation and Distribution Account in the above estate will lie for inspection at the offices of the Master of the High Court, JOHANNESBURG, and the Magistrate, PALM RIDGE, for **twenty-one (21) days** from date of publication hereof.

FNB Fiduciary (Pty) Ltd
P O Box 27521
Greenacres
6057
(STAR 10486492)

FNB First National Bank

Estate of the late: SYLVIA ANNE DE VRIES, who died on 10 MAY 2016, I.D. NO: 560808 0103 083, of 6 LOMOND ROAD, BLAIRGOWRIE, JOHANNESBURG.

Estate No: 014902/2016.

The First and Final Liquidation and Distribution Account in the above Estate will be open for inspection at the offices of te Master of the High Court JOHANNESBURG and the Magistrate, RANDBURG for twenty-one (21) days from the date of publication hereof

FNB Fiduciary (Pty) Limited
P.O. Box 52297
SAXONWOLD
GILLIAN VENTER
+ 27 87 335 5382
(STAR 10489506)

FNB First National Bank

Estate of the late: RENNIE CHRISTO DAMON JULIUS Estate No: 017817/2016. Master's Office: JOHANNESBURG. Date of Birth:1965-05-02. Identity No.:650202 5112 086. Date of Death:28 MAY 2016. SURVIVING SPOUSE: MARTHA CATRINA JULIUS. DATE OF BIRTH: 1966-07-06. I.D. NO: 660706 0518 087.

The First and Final Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of publication hereof at the Office of the Master of the Gauteng High Court, JOHANNESBURG, and the Magistrate's Office/s, VEREENIGING

Name and Address of Executor of Authorised Agent:
FNB Fiduciary (Pty) Limited
P.O. Box 52297
SAXONWOLD
(STAR 10490772)

FNB First National Bank

Estate of the late: PENELOPE ANNE SELBY Estate No: 021256/2016. Master's Office: JOHANNESBURG. Date of Birth:1944-11-02. Identity No.:441102 0049 180. Date of Death:13 MAY 2016. LAST ADDRESS: 18 OPAL CRESCENT FAIRFIELD ESTATE WITKOPPEN JOHANNESBURG.

The First and Final Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of publication hereof at the Office of the Master of the Gauteng High Court, JOHANNESBURG, and the Magistrate's Office/s, RANDBURG

Name and Address of Executor of Authorised Agent:
FNB Fiduciary (Pty) Limited
P.O. Box 52297
SAXONWOLD
(STAR 10490782)

FNB First National Bank

Estate of the late: ANNA MAGRIETA OOSTHUIZEN. Estate No: 020168/2016. Master's Office: JOHANNESBURG. Date of Birth:1958-08-08. Identity No.:580808 0045 082. Date of Death:16 APRIL 2016. SURVIVING SPOUSE: PETRUS WILHELMUS OOSTHUIZEN, DATE OF BIRTH: 1953-10-04, I.D. NO: 531004 5101 084, Last Address:8 HARVARD AVENUE, IMPALA PARK, BOKSBURG.

The First and Final Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of publication hereof at the Office of the Master of the Gauteng High Court, JOHANNESBURG, and the Magistrate's Office/s, BOKSBURG.

Name and Address of Executor of Authorised Agent:
FNB Fiduciary (Pty) Limited
P.O. Box 52297
SAXONWOLD
(STAR 10489565)

FNB First National Bank

Estate of the late: MICHAEL PETER FINNEGAN, died on 19 FEBRUARY 2016. Identity No.:460922 5173 081 of 683 KOLGANS STREET, RANDPARK, JOHANNESBURG

Estate No: 005304/2016

The First and Final Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of publication hereof at the Office of the Master of the Gauteng High Court, JOHANNESBURG, and the Magistrate's Office/s, RANDBURG

FNB Fiduciary (Pty) Limited
P.O. Box 52297
SAXONWOLD

GILLIAN VENTER
+27 87 335 5382
(STAR 10490894)

FNB First National Bank

Estate of the late: DONALD ROBERT BYTH . Estate No: 017415/2016. Master's Office: JOHANNESBURG. Date of Birth:1940-08-09. Identity No.:400809 5098 082. Date of Death:11 MAY 2016. Last Address:18 SWAKOPMUND HONEYDEW RIDGE, 2170

The First and Final Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of publication hereof at the Office of the Master of the Gauteng High Court, JOHANNESBURG, and the Magistrate's Office/s, ROODEPOORT

Name and Address of Executor of Authorised Agent:
FNB Fiduciary (Pty) Limited
P.O. Box 52297
SAXONWOLD
(STAR 10489546)

FNB First National Bank

Estate of the late: BIKAUM PILLAY, died on 19 FEBRUARY 2015. Identity No.:441207 0100 089 of 5 MELROSE STREET, MELROSE ESTATE

Estate No: 014892/2016

The First and Final Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of publication hereof at the Office of the Master of the Gauteng High Court, JOHANNESBURG, and the Magistrate's Office/s, JOHANNESBURG

FNB Fiduciary (Pty) Limited
P.O. Box 52297
SAXONWOLD

GILLIAN VENTER
+27 87 335 5382
(STAR 10490896)

FNB First National Bank

Estate of the late: DOREEN MARY COOPER, died on 4 JANUARY 2016. Identity No.:270706 0032 081 of LAWDES HOUSE, 10TH AVENUE, RIVONIA

Estate No: 015277/2016

The First and Final Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of publication hereof at the Office of the Master of the Gauteng High Court, JOHANNESBURG, and the Magistrate's Office/s, JOHANNESBURG

FNB Fiduciary (Pty) Limited
P.O. Box 52297
SAXONWOLD

GILLIAN VENTER
+27 87 335 5382
(STAR 10490897)

FNB First National Bank

Estate of the late: MEIR FUCHS, died on 26 APRIL 2016. Identity No.:360923 5090 185 of 108 EARLS COURT, 47 2NBD STREET, KILLARNEY

Estate No: 017852/2016

The First and Final Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of publication hereof at the Office of the Master of the Gauteng High Court, JOHANNESBURG, and the Magistrate's Office/s, JOHANNESBURG

FNB Fiduciary (Pty) Limited
P.O. Box 52297
SAXONWOLD

GILLIAN VENTER
+27 87 335 5382
(STAR 10490898)

FNB First National Bank

Estate of the late: MARIA FATIMA FREITAS FERRAZ, died on 4 DECEMBER 2015. Identity No.:620813 0048 088 of 10 CULEMBORG CRESCENT, HURLINGHAM MANOR, JOHANNESBURG

Estate No: 001546/2016

The Amended First and Final Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of publication hereof at the Office of the Master of the Gauteng High Court, JOHANNESBURG, and the Magistrate's Office/s, RANDBURG

FNB Fiduciary (Pty) Limited
P.O. Box 52297
SAXONWOLD

RINA HAGEMAN
+27 87 335 5709
(STAR 10490901)

FNB First National Bank

Estate of the late: HENRY EILENBERG, died on 13 MAY 2015. Identity No.:471127 5087 086 of 4 BARNTON ROAD, GREENSIDE, JOHANNESBURG

Estate No: 013557/2016

The First and Final Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of publication hereof at the Office of the Master of the Gauteng High Court, JOHANNESBURG, and the Magistrate's Office/s, JOHANNESBURG

FNB Fiduciary (Pty) Limited
P.O. Box 52297
SAXONWOLD

RINA HAGEMAN
+27 87 335 5709
(STAR 10490902)

FNB First National Bank

Estate of the late: MATTHYS LOURENS JACOBS, died on 20 FEBRUARY 2016. Identity No.:690619 5112 083 of 26 BOEKENHOUT CRESCENT, RIVERCLUB EXT 9, JOHANNESBURG

Estate No: 006556/2016

The First and Final Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of publication hereof at the Office of the Master of the Gauteng High Court, JOHANNESBURG, and the Magistrate's Office/s, RANDBURG

FNB Fiduciary (Pty) Limited
P.O. Box 52297
SAXONWOLD

RINA HAGEMAN
+27 87 335 5709
(STAR 10490904)

FNB First National Bank

Estate of the late: THELMA ROSE WAKELIN, died on 31 OCTOBER 2016. Identity No.:370624 0334 085 of 16 SUNDOWN PLACE, 129 PRETORIA AVENUE, SANDTON, 2196

Estate No: 004725/2016

The Amended First and Final Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of publication hereof at the Office of the Master of the Gauteng High Court, JOHANNESBURG, and the Magistrate's Office/s, JOHANNESBURG

FNB Fiduciary (Pty) Limited
P.O. Box 52297
SAXONWOLD

GILLIAN VENTER
+27 87 335 5382
(STAR 10490893)

FARKAS L.

ESTATE OF THE LATE
FARKAS: LAJOS, ESTATE NO: 14034/2016, PROVINCE: GAUTENG, I.D. NO: 420502 5094 08 8, LAST ADDRESS: 26 KIRBY BELLER ROAD, MULBARTON EXT 2
MAGISTRATE'S OFFICE: JOHANNESBURG
MASTER'S OFFICE: JOHANNESBURG
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

NERINA WESSELS ATTORNEY
PO BOX 3423
PINEGOWRIE, 2123
TEL: 082-560-9479
(STAR 10495104)

FULLER A.

ESTATE OF THE LATE
FULLER: ANTHONY, ESTATE NO: 008781/2015, PROVINCE: GAUTENG, I.D. NO: 601028 5033 08 3, LAST ADDRESS: 12 PAUL STREET, NORTHWOLD, JOHANNESBURG
MASTER'S OFFICE: JOHANNESBURG
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

NL ADMINISTRATION SERVICES
PO BOX 2259
HONEYDEW, 2040
TEL: (011) 791-4015
(STAR 10495141)

GOUNDEN C.

ESTATE OF THE LATE
GOUNDEN: COLLIN, ESTATE NO: 484/2015, PROVINCE: GAUTENG, I.D. NO: 661031 5131 08 6. LAST ADDRESS: 10 CHROME STREET, FARRARMERE, BENONI, 1501. SURVIVING SPOUSE: RAJESHREE CHARMANE GOUNDEN. I.D NO: 700409 0001 08 7

In terms of Section 35 (5) of Act 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the Estate specified above, will be open for the inspection of all persons with an interest therein for a period of 21 days from the date of the publication hereof, at the Office of the Master's office, JOHANNESBURG

DES NAIDOO ATTORNEYS
108 VICTORIA AVENUE, PARKMORE, SANDTON
ca2@dnattorneys.co.za
TEL: (011) 463-7236
(STAR 10490550)

HALL. P. I.

ESTATE OF THE LATE:
HALL: PAMELA ISOBEL. ESTATE NO: 034404/2014. I.D NO: 460912 0083 088. LAST ADDRESS: 20 TORWOOD ROAD, FOREST TOWN, JOHANNESBURG, 2193

The SUPPLEMENTARY FIRST AND FINAL Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of the publication hereof, at the Office of the Master of the High Court, JOHANNESBURG and at the Magistrate's Office .

AUTHORIZED EXECUTOR
ERNEST LOMBARD
BOX 3269
RANDBURG
2125
(STAR 10490915)

HOSS E. S. C.

ESTATE OF THE LATE
HOSS: ELSIE SUSANNA CECELIA. ESTATE NO: 31344/2011, PROVINCE: GAUTENG. I.D. NO: 550505 0202 087. SURVIVING SPOUSE: JOHANN HOSS. I.D. NO: 481130 5157 188.

In terms of Section 35 (5) of Act 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the Estate specified above, will be open for the inspection of all persons with an interest therein for a period of 21 days from the date of the publication hereof, at the Office of the Master of the High Court, JOHANNESBURG.
Should no objection thereto be lodged with the Master during the specified period, the Executors will proceed to make payments in accordance with the accounts.

J. J. VILJOEN ATTORNEYS
PO BOX 73671
FAIRLAND, 2030
TEL: (011) 838-8528
(STAR 10489192)

HOVENER. G. R

ESTATE OF THE LATE
HOVENER: GUIDO ROLAND. ESTATE NO: 811/2016, I.D. NO: 420627 5051 083, LAST ADDRESS: 41 SONNERGLANSPARK, 33 PAMPOENSPRUIT STREET, SONNEGLANS EXTENSION 16, 2158. SURVIVING SPOUSE: JOY ELEANOR HOVENER. I.D. NO: 421103 0038 086

The FIRST AND FINAL Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of the publication hereof, at the Office of the Master of the High Court JOHANNESBURG and the Magistrate's Office: RANDBURG

FRANK BOTHA & VICKERS ATTORNEYS
PO BOX 2859
PARKLANDS, 2121
TEL: (011) 791-4237
(STAR 10490910)

ISAACS D. M.

ESTATE OF THE LATE
ISAACS: DENNIS MATTHEW, ESTATE NO: 7432/2014, PROVINCE: GAUTENG, I.D. NO: 291230 5043 089, LAST ADDRESS: 103 RICHMAR GARDENS BOUNDARY ROAD, ROUXVILLE, 2012
MASTER'S OFFICE: JOHANNESBURG
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated.
Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

POLLARD & POLLARD
P O BOX 750
HIGHLANDS NORTH, 2037
TEL: (011) 440-3382
(STAR 10490924)

ISAACS M.

ESTATE OF THE LATE
ISAACS: MASSIE, ESTATE NO: 29765/2013, PROVINCE: GAUTENG, I.D. NO: 300526 0031 089, LAST ADDRESS: 103 RICHMAR GARDENS BOUNDARY ROAD, ROUXVILLE, 2012
MASTER'S OFFICE: JOHANNESBURG
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated.
Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

POLLARD & POLLARD
P O BOX 750
HIGHLANDS NORTH, 2037
TEL: (011) 440-3382
(STAR 10490925)

JOOSUB. U.

ETATE OF THE LATE:
JOOSUB: UNUS. ESTATE NO: 010718/2016. PROVINCE: GAUTENG. ID NO: 430518 5149 08 4. LAST ADDRESS: 273 BASSON STREET, ERASMIA, 0183.

In terms of Section 35 (5) of Act 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the Estate specified above, will be open for the inspection of all persons with an interest therein for a period of 21 days from the date of the publication hereof, at the Office of the Master's office, PRETORIA , and at the Magistrate's Office, PRETORIA.
Should no objection thereto be lodged with the Master during the specified period, the Executors will proceed to make payments in accordance with the accounts.

MUTHRAY & ASSOCIATES
7 VINDHELLA ROAD
VALHALLA 0185
TEL: 012 651 9000
(STAR 10489264)

KNIGHT D. L.

ESTATE OF THE LATE
KNIGHT: DAVID LESLIE, ESTATE NO: 13412/99, PROVINCE: GAUTENG, I.D. NO: 481110 5171 18 1, LAST ADDRESS: 14 BANTAM DRIVE, BLAIRGOWRIE, RANDBURG, 2194
MAGISTRATE'S OFFICE: MASTER'S OFFICE, JOHANNESBURG
MASTER'S OFFICE: PRETORIA
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

GILLIAN A. OLSEN ATTORNEY
29 WEST SHADY WOODS
56 KELLY AVENUE
BROMHOF
RANDBURG, 2188
TEL: (011) 792-8531
(STAR 10494907)

KRISHNASAMMY A. C.

ESTATE OF THE LATE
KRISHNASAMMY: AROOMUGAM CHINSAMMY, ESTATE NO: 3050/2014, PROVINCE: GAUTENG, I.D. NO: 561213 5153 08 5, LAST ADDRESS: 369 KALKHEUWEL STREET, ERASMIA, PRETORIA SURVIVING SPOUSE: GOVINDAMAL GOVENDER KRISHNASAMMY, I.D. NO: 601022 0138 08 8
MASTER'S OFFICE: PRETORIA
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

SS OMAR ATTORNEYS
706 OLIVETTI HOUSE
100 SOPHIE DE BRUYN STREET, PRETORIA
TEL: (012) 321-2433
(STAR 10495125)

KRUIS S. P.

ESTATE LATE OF:
KRUIS: STEPHANUS PETRUS. I.D. NO: 290527 5163 085. DATE OF BIRTH: 27-05-1929. ADDRESS: 19 BOTHA STREET, BURGERSHOOP, KRUGERSDORP, who died at: KRUGERSDORP on 29-08-2011. ESTATE NO: 17935/2011

The First & Final Liquidation and Distribution Account in the above Estate wii lie for inspection at the office of the Master of the North Gauteng High Court, PRETORIA and the Office of the Magistrate, KRUGERSDORP for a period of 21 days from the date of publication hereof.

MR M KRUIS
C/O Messrs DU TOOIT & BULL INC
P O BOX 1018
FONTAINEBLEAU
2032
TEL: 011 475 4044
(STAR 10489391)

LE ROUX. C. M. S.

ESTATE OF THE LATE:
LE ROUX: CATHERINE MARY SOPHIA. ESTATE NO: 005119/2014. ID NO: 290325 0027 086. LAST ADDRESS: 801 ALAN WOODROW GARDENS, RANGEVIEW RD, DALPARK, BRAKPAN.

The FIRST AND FINAL Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of the publication hereof, at the Office of the Master of the High Court, JOHANNESBURG, and at the Magistrate's Office, BRAKPAN.

J M RIEKSTINS/
C. A DEFRANCESKI
7 DROSTDY STR
FREEWAY PARK
BOKSBURG
(STAR 10491842)

MAKANJANA G. B.

ESTATE OF THE LATE:
MAKANJANA: GOODMAN BONGILE. PROVINCE: GAUTENG. ESTATE NO: 2105/2014. ID NO: 610708 5720 081. LAST ADDRESS: 1245/6 ZONE 10. SEBOKENG VEREENIGING.

The FIRST AND FINAL Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of the publication hereof, at the Office of the Master's office, JOHANNESBURG , and at the Magistrate's Office, VEREENIGING (EMFULENI)

REG JOUBERT ATTORNEY
027 FIRST AVENUE
ELMAPARK
EDENVALE
(STAR 10492342)

MAKOMORENG N. P.

ESTATE OF THE LATE
MAKOMORENG: NOMVULA PAULINE, ESTATE NO: 17899/2007, PROVINCE: GAUTENG, I.D. NO: 440721 0377 08 4, LAST ADDRESS: NO. 27 XUBENE TOWNSHIP, TEMBISA, 1632
MAGISTRATE'S OFFICE: TEMBISA MAGISTRATE OFFICE
MASTER'S OFFICE: PRETORIA
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated.
Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

GRAHAM ATTORNEYS
61 VAN DER WALT STREET
KEMPTON PARK
TEL: (011) 975-8682
(STAR 10495023)

MALAMBULE M. T.

ESTATE OF THE LATE
MALAMBULE: MOKGADI TERESSA, ESTATE NO: 01516/2015, PROVINCE: GAUTENG, I.D. NO: 450121 0440 08 0, LAST ADDRESS: 1019 PHINDA STREET, PHASE 3, DIEPKLOOF
MASTER'S OFFICE: JOHANNESBURG
MASTER'S OFFICE
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

BDE ADMINISTRATORS
11 THE HIGHWAY
FLORIDA PARK
FLORIDA, 1709
TEL: (011) 472-7701
(STAR 10495157)

MASHAZI O. W.

ESTATE OF THE LATE
MASHAZI: QONDENI WITNESS. ESTATE NO: 30595/2013, PROVINCE: GAUTENG, I.D. NO: 580903 0770 084, LAST ADDRESS: STAND 553, EXTENSION 1, ORANGEFARM, 1805.
MAGISTRATE'S OFFICE: VEREENIGING
MASTER'S OFFICE: JOHANNESBURG
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

JANA BOUWER ATTORNEYS
12 JASMINE MANSIONS
24 LESLIE STREET
VEREENIGING, 1930
TEL: 072-323-0984
(STAR 10486504)

METTER F. R.

ESTATE OF THE LATE
METTER: FRANK ROBERT, ESTATE NO: 18449/2015, PROVINCE: GAUTENG, I.D. NO: 200715 5018 08 1, LAST ADDRESS: 5 BURRREEL AVENUE, ELSTERNWICK, VICTORIA, AUSTRALIA, 3185
MAGISTRATE'S OFFICE: JOHANNESBURG
MASTER'S OFFICE: JOHANNESBURG
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

NOLANDS JHB INC.
PO BOX 2971
PINEGOWRIE, 2123
TEL: (011) 789-4966
(STAR 10495001)

MILLAR G.

ESTATE OF THE LATE
MILLAR: GEORGE, ESTATE NO: 031981/2014, PROVINCE: GAUTENG, I.D. NO: 420419 5116 18 5, LAST ADDRESS: FLAT 18, GRACELANDS II, 27 FARADAY ROAD, SUNNINGHILL, 2157 SURVIVING SPOUSE: SYLVIA JULIET THERESA MILLAR, I.D. NO: 430627 0031 08 8
MAGISTRATE'S OFFICE: RANDBURG
MASTER'S OFFICE: JOHANNESBURG
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days (or shorter or longer if specially stated) from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated.
Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

NORMAN BERGER & PARTNERS INC.
84 6TH AVENUE
CNR. LOUISE BOTHA AVENUE
HIGHLANDS NORTH
JOHANNESBURG, 2192
TEL: (011) 786-3096
(STAR 10495107)

MOKHOSI T. C.

ESTATE LATE OF:
MOKHOSI: TSIOANE CARIA. MASTER'S REFERENCE. 003480/2014.

The First & Final Liquidation and Distribution Account in the above estate is to lie for inspection and the offices of the Master of the High Court, JOHANNESBURG and the Magistrate SEBOKENG for a period of 21 days as 4 November 2016.

c/o MOLEFE DLEPU INC
P O BOX 7398
JOHANNESBURG, 2000
(STAR 10489297)

MOSTERT M. D.

ESTATE OF THE LATE
MOSTERT: MELANIE-DEE. ESTATE NO: 017576/2016, MASTER'S OFFICE: JOHANNESBURG, DATE OF BIRTH: 27 JUNE 1965. I.D. NO: 650627 0082 084, DATE OF DEATH: 28 NOVEMBER 2015. SURVIVING SPOUSE: DEREK JAMES MOSTERT. DATE OF BIRTH: 15 SEPTEMBER 1961. I.D. NO: 610915 5085 080. LAST ADDRESS: 8 OAKMONT COMPLEX, DIASCIA STREET, BRENTWOOD PAK, BENONI, 1501

The FIRST AND FINAL Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of publication hereof, at the office of the Master of the High Court, JOHANNESBURG and the Magistrate's Office, BENONI

AUTHORIZED EXECUTOR
RUBICON TRUST COMPANY LIMITED
208 Barry Hertzog Avenue
Greenside, Ext
JOHANNESBURG, 2193
Ref: Lethiwe Vilakazi
Tel: (011) 646-0064
(STAR 10490908)

MOTSATSE T. G.

ESTATE OF THE LATE
MOTSATSE: TEBOHO DAVID. ESTATE NO: 24835/2016, PROVINCE: GAUTENG, I.D. NO: 670323 5344 085, LAST ADDRESS: 46, BARKSTON ESTATE, KELLY AVENUE, BROMHOF, RANDBURG, SURVIVING SPOUSE: SEBOLELO MMAMODIEHI PITSO, I.D. NO: 700617 0165 088
MAGISTRATE'S OFFICE: RANDBURG
MASTER'S OFFICE: JOHANNESBURG
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

AGENT:
PIERRE VAN JAARSVELD
1st Floor
Visiomed Office Block 6
269 Beyers Naude Drive
Northcliff, Johannesburg
TEL: (011) 431-3120
(star 10492230)

NDAMANE S. A.

ESTATE OF THE LATE
NDAMANE: SOLISWA AUDREY. ESTATE NO: 023116/2015, PROVINCE: GAUTENG, I.D. NO: 570416 0739 084, LAST ADDRESS: STAND 4274, SHARPVILLE, 1928. SURVIVING SPOUSE: MVULA SIDNEY NDAMAMNE. I.D. NO: 550302 5271 089.
MAGISTRATE'S OFFICE: VEREENIGING
MASTER'S OFFICE: JOHANNESBURG
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

JANA BOUWER ATTORNEYS
12 JASMINE MANSIONS
24 LESLIE STREET
VEREENIGING, 1930
TEL: 072-323-0984
(STAR 10486516)

OOSTHUYSEN C. C.

ESTATE OF THE LATE
COENRAAD CORNELIUS OOSTHUYSEN, I.D. NO: 470603 5029 08 9, unmarried, and deceased on the 9 OCTOBER 2010, ESTATE NO: 016482/2015 (Johannesburg Master)
In terms of the provisions of Section 35(5) of the Administration of Estates Act, Act 66 of 1965, as amended, notice is hereby given that the first and final liquidation and distribution account in the above mentioned estate shall lie for inspection by all parties concerned for a period of 21 (twenty one) days as from date of publication hereof at the offices of the Master of the High Court, Johannesburg, and at the Magistrate's Court, Boksburg.
Should no objection be lodged at the Master of the High Court during the period of inspection, the executors shall proceed to make payment in terms of the account.

(SGD) A G SMUTS FOR A G SMUTS & PARTNERS
FORUM
631 VOORTREKKER ROAD
PO BOX 743
BRAKPAN, 1540
TEL: (011) 740-1530
REF: MISS DE MEYER/ O128
(STAR 10494848)

POLOVIN J. R.

ESTATE OF THE LATE
POLOVIN: JEAN RAE, ESTATE NO: 007084/2015, PROVINCE: GAUTENG, I.D. NO: 260709 0011 08 1, LAST ADDRESS: 228 PEMBURY, 1 WEST KERNICK AVENUE, ILLOVO, JOHANNESBURG
MASTER'S OFFICE: JOHANNESBURG
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

MARTIN SAUL SHAPIRO
1ST FLOOR, 54 ON BATH
54 BATH AVENUE
ROSEBANK
JOHANNESBURG
TEL: (011) 880-4710
(STAR 10495193)

RICETTO G.

ESTATE OF THE LATE
RICETTO: GIORGIO, ESTATE NO: 6186/2015, I.D. NO: 530603 5094 18 0, LAST ADDRESS: 83, 10TH AVENUE, BEZUIDENHOUT VALLEY
The FIRST AND FINAL Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of the publication hereof, at the Office of the Master of the High Court, JOHANNESBURG, and at the Magistrate's Office, JOHANNESBURG.

ATTORNEY G. N. DRACATOS
PO BOX 1057
ALBERTON, 1450
TEL: (011) 907-2820
(STAR 10495209)

RUDMAN. J. A. S.

ESTATE OF THE LATE:
RUDMAN: JACOBA ADRIANA SOPHIA. ESTATE NO: 016765/2016. PROVINCE: GAUTENG, I.D NO: 230330 0024 086. LAST ADDRESS: 25 DIEDRIKS STREET, RANDPARK RIDGE EXT 7, RANDBURG. MAGISTRATE'S OFFICE: RANDBURG. MASTERS OFFICE: JOHANNESBURG.

In terms of Section 35 (5) of Act 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the Estate specified above, will be open for the inspection of all persons with an interest therein for a period of 21 days from the date of the publication hereof, at the Office of the Master of the High Court, , and at the Magistrate's Office, .
Should no objection thereto be lodged with the Master during the specified period, the Executors will proceed to make payments in accordance with the accounts.

G. J. RUDMAN
25 DIEDRIKS STREET
RANDPARK RIDGE EXT 7
RANDBURG
(STAR 10492316)

SALMAN. P.

ESTATE OF THE LATE
SALMAN: PETRONELLA, ESTATE NO: 2934/2016, I.D. NO: 690311 0495 081, LAST ADDRESS: JACKIE MEKLEE CRESCENT, 22 UNITASPARK, VEREENIGING, SURVIVING SPOUSE: ZAKADE SAMUEL SALMAN, I.D NO: 600227 5849 081
The FIRST AND FINAL Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of the publication hereof, at the Office of the Master of the High Court, MARSHALLTOWN, and at the Magistrate's Office, VEREENIGING.

JONK ATTORNEYS
PO BOX 668
CHRISSIEFONTEIN, 1963
TEL: 078-970-9248
(STAR 10490926)

SEBITIELE M. E.

ESTATE OF THE LATE
SEBITIELE: MMAKENEPE ELIZABETH, ESTATE NO: 103/2012, PROVINCE: GAUTENG, I.D. NO: 440928 0442 08 7, LAST ADDRESS: 4 BLOCK C, MABOPANE, 0190
MAGISTRATE'S OFFICE: MABOPANE
MASTER'S OFFICE: PRETORIA
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

T SIKHALA ATTORNEYS
SUITE 303, 3RD FLOOR
PREMIUM TOWERS BUILDING
CNR. VAN DER WALT AND PRETORIUS STREET
PRETORIA
TEL: (012) 323-6020
(STAR 10495170)

SIMELANE M. J.

ESTATE OF THE LATE
SIMELANE: MPINI JAMES, ESTATE NO: 6139/2016, PROVINCE: GAUTENG, I.D. NO: 490216 5451 08 2, LAST ADDRESS: 5975 BONOLO CRESCENT, ETWATWA EXTENSION 3, DAVEYTON SURVIVING SPOUSE: MALEQOA SUZAN SIMELANE, I.D. NO: 570816 0288 08 3
MAGISTRATE'S OFFICE: DAVEYTON
MASTER'S OFFICE: JOHANNESBURG
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

STEPHINA MOTLHAMME ATTORNEYS
6TH FLOOR, JHC BUILDING
51 MAIN STREET
CNR. MACLAREN STREET
JOHANNESBURG
TEL: (011) 053-8840
(STAR 10495029)

SOLES. I.

ESTATE OF THE LATE
SOLES: ISAAC. ESTATE NO: 30230/2014. PROVINCE: GAUTENG, I.D. NO: 281225 5080 083, LAST ADDRESS: STAND 6653 ELDORADO PARK.
MASTER'S OFFICE: SOUTH GAUTENG

In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

DERROCKS ATTORNEYS
PO BOX 38048
BOOYSENS, 2016
TEL: (011) 838-8103
(STAR 10489422)

SUZMAN. R. M.

ESTATE OF THE LATE
SUZMAN: RICHARD MICHAEL. ESTATE NO: 009357/2016, I.D. NO: 509977995 (PASSPORT NO.). LAST ADDRESS: MARYLAND - USA

The FIRST AND FINAL Liquidation and Distribution Account in this Estate will be open for inspection for a period of 21 days from the date of the publication hereof, at the Office of the Master of the Supreme Court, JOHANNESBURG

PAPILSKY HURWITZ
PO BOX 46319
ORANGE GROVE, 2119
TEL: (011) 728-7433
(STAR 10490919)

TOWNSEND J. E.

ESTATE OF THE LATE
TOWNSEND: JAMES EDWARD, ESTATE NO: 16654/2002, PROVINCE: GAUTENG, I.D. NO: 251001 5061 08 4, LAST ADDRESS: 42 GORDON ROAD, BLAIRGOWRIE SURVIVING SPOUSE: LILIAN BEATRICE TOWNSEND, I.D. NO: 301201 0060 08 7
MAGISTRATE'S OFFICE: RANDBURG
MASTER'S OFFICE: PRETORIA
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

BARRY SIM ATTORNEYS
PO BOX 348
PINEGOWRIE, 2123
TEL: (011) 787-1261
(STAR 10494258)

WEBB A. I.

ESTATE OF THE LATE
WEBB: ANNIS ILEA, ESTATE NO: 013392/2016, PROVINCE: GAUTENG, I.D. NO: 300727 0043 08 8, LAST ADDRESS: AFSAAL UNIT 24, 55 SIXTH STREET, LINDEN, JOHANNESBURG
MASTER'S OFFICE: JOHANNESBURG
In terms of section 35 (5) of the Administration of Estates Act, No. 66 of 1965, notice is hereby given that copies of the Liquidation and Distribution Accounts (FIRST AND FINAL) in the estates specified below will be open for the inspection of all persons with an interest therein for a period of 21 days from the date specified or from the date of publication hereof, whichever may be the later, and at the offices of the Masters of the High Court and Magistrates as stated. Should no objection thereto be lodged with the Masters concerned during the specified period, the executors will proceed to make payments in accordance with the accounts.

NL ADMINISTRATION SERVICES
PO BOX 2259
HONEYDEW, 2040
TEL: (011) 791-4015
(STAR 10495134)

SCOPING AND ENVIRONMENTAL IMPACT REPORTING (S&EIR) PROCESS AND WATER USE LICENCE (WUL) APPLICATION PROCESS FOR HI-FOS (PTY) LTD PROPOSED PHOSPHORIC ACID PLANT, STANDERTON, MPUMALANGA

Sonskyn Kunsmis (Pty) Ltd supplies liquid and blended solid fertilizers to farms in the area of Standerton, Mpumalanga. In this regard Sonskyn purchase raw materials from suppliers throughout Southern Africa to produce the liquid fertilizer.

The objective of the proposed Hi-Fos (Pty) Ltd Phosphoric Acid Plant is to construct and operate the following:
o Phosphoric Acid Plant.
o Calcium Ammonium Nitrate (CNX) Plant.
o Pure Mono Ammonium Phosphate Plant (MAP 39).
o Mono Ammonium Phosphate (MAP 33).
And to move the Granular Fertilizer Blending Plant from Sonskyn Kunsmis (Pty) Ltd in Standerton to the new Hi-Fos (Pty) Ltd site.

The following Environmental Authorisations (EAs) are required for the construction and operation of the Phosphoric Acid Plant.

NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NO. 107 OF 1998)
EA in terms of section 24(2) and 24D of the NEMA is required for the following listed activities identified in terms of GNR 983 (4 December 2014):
Activity 24: *The development of-*
(i) a road for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or
(ii) a road with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 meters
but excluding -
(a) roads which are identified and included in activity 27 in Listing Notice 2 of 2014;
(b) or roads where the entire road falls within an urban area.

EA in terms of section 24(2) and 24D of the NEMA is required for the following listed activities identified in terms of GNR 984 (4 December 2014):
Activity 4: *The development 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 more than 500 cubic metres.*
Activity 6: *The development of facilities or infrastructure for any process or activity which requires a permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent, excluding-*
(i) activities which are identified and included in Listing Notice 1 of 2014;
(ii) activities which are 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 National Environmental Management: Waste Act, 2008 applies; or
(iii) the development of facilities or infrastructure for the treatment of effluent, wastewater or sewage where such facilities have a daily throughput capacity of 2000 cubic metres or less.

NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT (NO. 39 OF 2004)
An AEL is required in terms of section 37 of the National Environmental Management: Air Quality Act (No. 39 of 2004) (NEM:AQA) in respect of the following activity identified in GNR 839 (22 November 2013):
Category 7: *Inorganic Chemicals Industry, Subcategory 7.3: Production of Chemical Fertilizer.*

NATIONAL WATER ACT (NO. 36 OF 2004)
A WUL is required in terms of section 40(1) of the NWA for the following water uses listed in section 21 of the NWA:
Section 21(a): *Taking water from a water resource;*
Section 21(b): *Storing water;*
Section 21(g): *Disposing of waste in a manner which may detrimentally impact on a water resource.*

NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT (NO. 59 OF 2008)
The Norms and Standards, GNR 926 (29 November 2013), provide minimum standards for the design and operation of new and existing waste storage facilities, without the need to undertake an EA process.
Category C (Norms and Standards in terms of GNR 926 (29 November 2013):
Activity 5(1): *The storage of general waste at a facility that has the capacity to store in excess of 100m³ of general waste at any one time, excluding the storage of general waste in lagoons or temporary storage of such waste.*
Activity 5(2): *The storage of hazardous waste at a facility that has the capacity to store in excess of 80m³ of hazardous waste at any one time, excluding the storage of hazardous waste in lagoons or temporary storage of such waste.*

INVITATION TO REGISTER AS AN INTERESTED AND AFFECTED PARTY (I&AP)
Terra Pacis Environmental (Pty) Ltd (Terra Pacis) has been appointed as the independent environmental assessment practitioner, to manage the S&EIR and the WUL application processes. These processes include the consultation with parties that may be affected by, or have an interest, in the project. Parties wishing to formally register as interested and affected parties (I&APs) in order to offer their comment on the proposed project are requested to forward their full contact details before 9 December 2016 to the contact details below. Registered I&APs will be forwarded all future correspondence, and notified individually of additional opportunities to participate in the process.

INVITATION TO REGISTER AS AN INTERESTED AND AFFECTED PARTY (I&AP) AND TO COMMENT ON THE DRAFT SCOPING REPORT
You are hereby invited to review and pass comments on the Draft Scoping Report for the abovementioned project. The Draft Scoping Report will be available for review at the following locations from 9 November 2016 to 9 December 2016.

PLACE	STREET	TELEPHONE
• Sonskyn Kunsmis (Pty) Ltd	Minnaar Street 2, Standerton	(017) 712-7020
• Standerton Public Library	Corner Andries Pretorius and Piet Retief Street	(017) 712-9600
• Terra Pacis	www.terrapacis.co.za	011 781 7800

Please note that substantiated issues and comments must be submitted in writing to Terra Pacis before 9 December 2016. It would be appreciated if the comments could be made well within this period in order for us to address these comments appropriately.
Terra Pacis Environmental (Pty) Ltd
Contact Details: Paula Tolksdorff
PO BOX 41409, CRAIGHALL, JOHANNESBURG, 2024
Tel: (011) 781 7800; Fax: 086 528 7418;
E-mail: paula@terrapacis.co.za

Appendix 5 : Site Notices

SCOPING AND ENVIRONMENTAL IMPACT REPORTING (S&EIR) PROCESS AND WATER USE LICENCE (WUL) APPLICATION PROCESS FOR HI-FOS (PTY) LTD PROPOSED PHOSPHORIC ACID PLANT, STANDERTON, MPUMALANGA

Sonskyn Kunsmis (Pty) Ltd (Sonskyn) supplies liquid and blended solid fertilizers to farms in the area of Standerton Mpumalanga. In this regard Sonskyn purchase raw materials from suppliers throughout Southern Africa to produce the liquid fertilizer.

The objective of the proposed Hi-Phos (Pty) Ltd Phosphoric Acid Plant is to construct and operate the following:

- Phosphoric Acid Plant.
- Calcium Ammonium Nitrate (CNX) Plant.
- Pure Mono Ammonium Phosphate Plant (MAP 39).
- Mono Ammonium Phosphate (MAP 33).

And to move the Granular Fertilizer Blending Plant from Sonskyn Kunsmis (Pty) Ltd in Standerton to the new Hi-Fos (Pty) Ltd site.

The following Environmental Authorisations (EAs) are required for the construction and operation of the Phosphoric Acid Plant.

NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NO. 107 OF 1998)

EA in terms of section 24(2) and 24D of the NEMA is required for the following listed activities identified in terms of GNR 983 (4 December 2014):

Activity 24: *The development of-*

(i) a road for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or

(ii) a road with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 meters but excluding –

(a) roads which are identified and included in activity 27 in Listing Notice 2 of 2014;

(b) or roads where the entire road falls within an urban area.

EA in terms of section 24(2) and 24D of the NEMA is required for the following listed activities identified in terms of GNR 984 (4 December 2014):

Activity 4: *The development 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 more than 500 cubic metres.*

Activity 6: *The development of facilities or infrastructure for any process or activity which requires a permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent, excluding-*

(i) activities which are identified and included in Listing Notice 1 of 2014;

(ii) activities which are 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 National Environmental Management: Waste Act, 2008 applies; or

(iii) the development of facilities or infrastructure for the treatment of effluent, wastewater or sewage where such facilities have a daily throughput capacity of 2000 cubic metres or less.

Activity 28: *Commencing of an activity, which requires an atmospheric emission license in terms of section 21 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004), excluding -*

(i) activities which are identified and included in Listing Notice 1 of 2014;

(ii) activities which are included in the list of waste management activities published interms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the National Environmental Management: Waste Act 2008 applies; or

(iii) the development of facilities or infrastructure for the treatment of effluent, wastewater or sewage where such facilities have a daily throughput capacity of 2000 cubic metres or less.

NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT (NO. 39 OF 2004)

An AEL is required in terms of section 37 of the National Environmental Management: Air Quality Act (No. 39 of 2004) (NEM:AQA) in respect of the following activity identified in GNR 839 (22 November 2013):

Category 7: *Inorganic Chemicals Industry, Subcategory 7.3: Production of Chemical Fertilizer.*

NATIONAL WATER ACT (NO. 36 OF 2004)

A WUL is required in terms of section 40(1) of the NWA for the following water uses listed in section 21 of the NWA:

Section 21(a): *Taking water from a water resource.*

Section 21(b): *Storing water.*

Section 21(g): *Disposing of waste in a manner which may detrimentally impact on a water resource.*

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

The Norms and Standards, GNR 926 (29 November 2013), provide minimum standards for the design and operation of new and existing waste storage facilities, without the need to undertake an EA process.

Category C (Norms and Standards in terms of GNR 926 (29 November 2013)):

Activity 5(1): *The 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 general waste in lagoons or temporary storage of such waste.*

Activity 5(2): *The storage of hazardous waste at a facility that has the capacity to store in excess of 80m^3 of hazardous waste at any one time, excluding the storage of hazardous waste in lagoons or temporary storage of such waste.*

INVITATION TO REGISTER AS AN INTERESTED AND AFFECTED PARTY (I&AP)

Terra Pacis Environmental (Pty) Ltd (Terra Pacis) has been appointed as the independent environmental assessment practitioner, to manage the S&EIR and the WUL application processes. These processes include the consultation with parties that may be affected by, or have an interest, in the project. Parties wishing to formally register as interested and affected parties (I&APs) in order to offer their comment on the proposed project are requested to forward their full contact details before 9 December 2016 to the contact details below. Registered I&APs will be forwarded all future correspondence, and notified individually of additional opportunities to participate in the process.

INVITATION TO REGISTER AS AN INTERESTED AND AFFECTED PARTY (I&AP) AND TO COMMENT ON THE DRAFT SCOPING REPORT

You are hereby invited to review and pass comments on the Draft Scoping Report for the abovementioned project. The Draft Scoping Report will be available for review at the following locations from 9 November 2016 to 9 December 2016.

PLACE	STREET	TELEPHONE
Sonskyn Kunsmis (Pty) Ltd	Minnaar Street 2, Standerton	017 712 7020
Standerton Public Library	Corner Andries Pretorius and Piet Retief Street	017 712 9600
Terra Pacis	www.terrapacis.co.za	011 781 7800

Please note that substantiated issues and comments must be submitted in writing to Terra Pacis before 9 December 2016. It would be appreciated if the comments could be made well within this period in order for us to address these comments appropriately.

Terra Pacis Environmental (Pty) Ltd
Contact Details: Paula Tolksdorff
PO BOX 41409, CRAIGHALL, JOHANNESBURG, 2024
Tel: (011) 781 7800; Fax: 086 528 7418;
E-mail: paula@terrapacis.co.za

PROPOSED DEVELOPMENT FOR VLAKFONTEIN, PORTION NR 93, FARM NR386 - SITE LOCATION MAP

Terra Pacis environmental

Client Code:	Date Drawn:	Scale:	Data Source:	Projection:
SON001	21/07/2016	1: 25,000	Google Earth Image SA Roads Network	WGS 84
Project Code:	Author:			
2:2015	Melissa Allert			

Appendix 6 : Background Information Document

Terra Pacis
environmental

SCOPING AND ENVIRONMENTAL IMPACT REPORTING (S&EIR) PROCESS AND WATER USE LICENCE (WUL) APPLICATION PROCESS FOR HI-FOS (PTY) LTD PROPOSED PHOSPHORIC ACID PLANT, STANDERTON, MPUMALANGA

Aim of the Project

The proponent applying for environmental authorisation (EA) and a WUL is Hi-Fos (Pty) Ltd (Hi-Fos). The proponent proposes the construction and operation Phosphoric Acid Plant.

The following EAs are required:

- EA for activities identified in terms of GNR 984 (4 December 2014);
- Atmospheric Emissions Licence (AEL) for activities identified in terms of GNR 839 (22 November 2013); and
- A WUL in terms of the NWA.

Purpose of this Document

Terra Pacis Environmental (Pty) Ltd (Terra Pacis) has been appointed as the independent environmental assessment practitioner (EAP), to manage the process. This process includes the consultation with parties that may be affected by, or have an interest, in the project. These parties are referred to as interested and affected parties (I&APs).

Purpose of this document:

- Provide background information regarding the project.
- Provide an outline of the process being followed.
- Inform members of the public of their rights and responsibilities regarding participation in certain parts of the process.
- Assist the public to formulate their comments in a manner that will ensure that they can be afforded due attention in certain parts of the process.

Kindly complete the attached form and return it to the relevant Terra Pacis representative before 8 December 2016.

Background Information

Location

The proposed site is located off R23 approximately 27km from Standerton on Portion 4 of the farm Holfontein 399 in the Mpumalanga Province.

The proposed site falls within the jurisdiction of the Lekwa Local Municipality, which forms part of the greater Gert Sibande Municipality. The location of proposed site as illustrated in Figure 1.

Existing Land Use

The current land use of the proposed site is agricultural.

Surrounding Land Uses

The land use surrounding the proposed site is industrial (brickworks) and agricultural.

What does the Project Entail?

Existing Factory

Sonskyn Kunsmis (Pty) Ltd (Sonskyn) supplies liquid and blended solid fertilizers to farms in the area of Standerton Mpumalanga. In this regard Sonskyn purchase raw materials from suppliers throughout Southern Africa to produce the liquid fertilizer.

The solid raw materials currently used are potassium chloride, urea, mono-ammonium phosphate (MAP 33), limestone ammonium nitrate (LAN) and zinc sulphate. Liquid raw materials used are phosphoric acid and ammonium nitrate solution. These materials are presently dissolved in water and filtered to produce the liquid fertilizer formulations.

In addition raw material in the form of solid granules are blended in a scroll mixer to give solid granular fertilizer formulations.

Tel : 011 781 7800
Fax : 011 447 7100
Email : info@terrapacis.co.za
Web : www.terrapacis.co.za
Directors : P. Tolksdorff (Managing), M. Tolksdorff (Executive)
Post : P.O.Box 41409, Craighall, Johannesburg, 2024
Phys : 13 Sutherland Avenue, Craighall Park, Johannesburg, 2196
VAT No : 4590225126
Reg No : 2005/039843/07

Objective and Description of the Project

The objective of the project is to construct and operate the following:

- Phosphoric Acid Plant.
- Calcium Ammonium Nitrate (CNX) Plant.
- Pure Mono Ammonium Phosphate Plant (MAP 39).
- Mono Ammonium Phosphate (MAP 33).

And to move the Granular Fertilizer Blending Plant from Sonskyn Kunsmis (Pty) Ltd in Standerton to the new site.

One of the raw materials, phosphoric acid, is becoming increasingly difficult to procure. Accordingly Hi-Fos is investigating the construction of a phosphoric acid plant and auxiliary plants to manufacture phosphoric acid, CNX, MAP 39 and MAP 33 for their own use and for sales.

Trailblazer Technologies (Pty) Ltd (TBT), a chemical engineering design company, approached Hi-Fos with the Nitrophos Process technology in this regard. The proposed Phosphoric Acid Plant would produce phosphoric acid from phosphate rock sourced from Phalaborwa and nitric acid from Sasol.

The calcium nitrate (CN4) as produced by the Phosphoric Acid Plant has a low melting point and is difficult to handle. It may have application as a liquid fertiliser (calcium nitrate liquid (CNL)) but will be converted to calcium ammonium phosphate (CNX) in the CNX Plant. CNX has a higher melting point and no significant handling problems.

The phosphoric acid produced by the Phosphoric Acid Plant is combined with anhydrous ammonia to produce mono ammonium phosphate (MAP 39) for sales. By-products from the process are magnesium ammonium phosphate (MagAmP) solution and the mother liquor from the crystalliser which are fed to the MAP 33 process.

In the MAP 33 process the mother liquor and the MagAmP from the MAP 39 process are blended with phosphoric acid and anhydrous ammonia to form MAP 33 solution. The MAP 33 solution is fed to a spray drier and a granulator to produce granular MAP 33 for blending into granular fertiliser formulations.

The existing Granular Fertiliser Blending Plant will be relocated from the Sonskyn Kunsmis (Pty) Ltd in Standerton. The MAP 33 potash and LAN granules are blended according to the required recipe to produce the various fertiliser blends required for the market.

The various plants can operate in either a continuous or batch mode. They will run during the farming season, April to January, at 5500 hours per annum (h/a).

The first phase of the project is expected to cost 8 million rand with construction taking 6 to 7 months

.Delegated Lead Authorities

The delegated lead authorities responsible for administering and implementation of the relevant legislation are:

- The Mpumalanga Department of Economic Development, Environment and Tourism (MDEDET) – delegated lead authority for authorisation of the application for EA for activities listed in terms of GNR 984 (4 December 2014);
- Gert Sibande District Municipality - delegated lead authority for the authorisation the AEL for activities identified in terms of GNR 839 (22 November 2013); and
- The Department of Water and Sanitation (DWS) – delegated lead authority for the authorisation of a WUL.

Key Milestones

The following key milestones are anticipated:

- October 2016 to November 2017 – Obtain environmental authorisation.
- December 2017 to December 2018 - Construction of the phosphoric acid plant.
- December 2018 onwards – Operating of the phosphoric acid plant.

Environmental Authorisation

EA in terms of section 24(2) and 24D of the NEMA is required for the following listed activities identified in terms of GNR 983 (4 December 2014):

Activity 24: The development of-

(i) a road for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or

(ii) a road with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 meters

but excluding –

(a) roads which are identified and included in activity 27 in Listing Notice 2 of 2014;

(b) or roads where the entire road falls within an urban area.

EA in terms of section 24(2) and 24D of the NEMA is required for the following listed activities identified in terms of GNR 984 (4 December 2014):

Activity 4: The development 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 more than 500 cubic metres.

Activity 6: The development of facilities or infrastructure for any process or activity which requires a permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent, excluding-

(i) activities which are identified and included in Listing Notice 1 of 2014;

(ii) activities which are 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 National Environmental Management: Waste Act, 2008 applies; or

(iii) the development of facilities or infrastructure for the treatment of effluent, wastewater or sewage where such facilities have a daily throughput capacity of 2000 cubic metres or less.

Atmospheric Emissions Licence

An AEL is required in terms of section 37 of the National Environmental Management: Air Quality Act (No. 39 of 2004) (NEM:AQA) in respect of the following activity identified in GNR 839 (22 November 2013):

Category 7: Inorganic Chemicals Industry.
Subcategory 7.3: Production of Chemical Fertilizer.

Water Use Licence

A WUL is required in terms of section 41 of the NWA for the following activities listed in section 21 of the NWA:

Section 21(a): Taking water from a water resource.
Section 21(b): Storing water.
Section 21(g): Disposing of waste in a manner which may detrimentally impact on a water resource.

Waste Management License

The Norms and Standards, GNR 926 (29 November 2013), provide minimum standards for the design and operation of new and existing waste storage facilities, without the need to undertake an EA process.

Category C (Norms and Standards in terms of GNR 926 (29 November 2013)):

Activity 5(1): The 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 general waste in lagoons or temporary storage of such waste.

Activity 5(2): The storage of hazardous waste at a facility that has the capacity to store in excess of $80m^3$ of hazardous waste at any one time, excluding the storage of hazardous waste in lagoons or temporary storage of such waste.

What is Scoping and Environmental Impact Reporting (S&EIR) and Why is it Important?

Scoping and Environmental Impact Reporting (S&EIR) is an assessment of the possible impacts – positive or negative – that a proposed project may have on the environment, together consisting of the natural, social and economic aspects.

The assessment highlights and predicts any problems before major decisions are made. It also assists the proponent in finding ways to avoid problems and to enhance the positive effects.

The concept of sustainable development serves as the base of such an assessment. In other words development needs to take place, however it is how we manage the impacts on the environment as a whole, that will determine whether such a project will bring about positive change.

The S&EIR Process

The S&EIR process being implemented can be summarised as follows (Please also refer to Figure 2 for a diagrammatic representation of the processes to be followed):

Phase 1: Scoping
The purpose of the Scoping process is to provide sufficient information to decision-making authorities to enable them to reach a decision on the scope of issues to be addressed in the Environmental Impact Reporting (EIR).

The objectives of the Scoping process are to:

- Identify and inform a broad range of stakeholders about the proposed development;
- Clarify the scope and nature of the proposed activities and the alternatives;
- Conduct an open and transparent consultation process and facilitate the inclusion of stakeholders' concerns in the decision-making process; and
- Identify key issues to be addressed in the EIR phase and outline the approach to addressing these issues.

Phase 2: Environmental Impact Reporting
The purpose of the EIR phase of the assessment is to address the issues raised in the Scoping phase.

Specialist studies will be conducted to assess alternatives, identify impacts and determine the significance of impacts as well as formulate mitigatory measures, if required to minimise/avoid negative impacts and maximise positive benefits of the proposed project.

Public Participation Process

The public participation process (PPP) is an integral part of the S&EIR, and continues throughout this process. This section provides more detail on the PPP.

Step 1: Notify the Authority of S&EIR Process

- Submit an application for S&EIR to the delegated lead authorities.

Step 2: Notify I&APs and Identify Issues

- Notify I&APs of the project proposal.
- Identify any issues/concerns of I&APs.
- Provide I&APs with a background information document (BID) on the project, including a locality map and a registration/issues form. I&APs are required to register their interest in the project to receive further project information.
- One-on-one meetings will be conducted with relevant stakeholders.

Step 3: I&AP Review of Draft Scoping Report

- Issues and concerns raised by I&APs are contained in a Comment Response Report for inclusion in the Draft Scoping Report.
- The report is released for a 30 day comment period.
- This report will also include the Plan of Study for EIR.
- All registered I&APs on the project database are notified in writing of the opportunity to comment.
- Copies of the report will be made available at public places and on the Terra Pacis website.

You are hereby invited to review and pass comments on the Draft Scoping Report for the abovementioned project. The Draft Scoping Report will be available for review at the following locations from 8 November to 8 December 2016.

PLACE	STREET	TELEPHONE
Sonskyn Kunsmis (Pty) Ltd	Minnaar Street 2, Standerton	017 712 7020
Standerton Public Library	Corner Andries Pretorius and Piet Retief Street	017 712 9600
Terra Pacis	www.terrapacis.co.za	011 781 7800

Step 4: Final Scoping Report

- Comments received from I&APs during the review process are considered in the compilation of the Final Scoping Report before it is submitted to the MDEDET for their decision making.
- All I&APs on the project database will be notified in writing of the MDEDET's decision on the Scoping Report.
- The Final Scoping Report will include the Plan of Study for EIR and Terms of Reference for specialist studies to be undertaken as part of the EIR.

Step 5: Draft EIR and EMP for I&AP Review

- Compilation and release of a Draft EIR, (including the draft Environmental Management Programme (EMPr)) for a 30 day review period by I&APs.
- All comments received from I&APs and authorities via meetings held or via written correspondence are compiled into a Comment Response Report.
- The Comment Response Report will indicate the nature of the comment, when and who raised the comment as well as indicate how the comment received has been considered in the Final EIR.

Step 6: Final EIR and Draft EMP

- The Final EIR, including the Comment Response Report and Draft EMPr will be compiled for submission to the MDEDET for decision making.

Step 7: Notify I&APs of Environmental Authorisation and Appeal Period

- All I&APs on the project database will be notified in writing regarding the environmental authorisation for the project and the appeal period, as well as the manner of appeal.

The WUL Application Process

Following the approval of the Final Scoping Report (please refer to Step 4 above), the Draft EIR (Step 5 above) and the Draft Water Use Licence Application (WULA) will be submitted for comment by I&APs. Such comments will be included in the Final EIR and Final WULA, which will be submitted to the delegated lead authorities for decision making (Step 6 above).

A decision will be made by the delegated lead authorities either to approve or to reject the applications. The decision will be made available to I&APs. Following the decision making, stakeholders and/or the applicant may appeal such decision (Step 7 above).

Why is Your Participation Important?

Participation by I&APs is in everyone's best interest because:

- It provides opportunities for I&APs and the authorities to obtain clear, accurate and understandable information about the proposed project;
- It provides members of the public with the opportunity to provide comments (both positive and negative) regarding the environmental impacts of the proposed project;
- It provides affected parties with the opportunity to suggest ways for reducing or mitigating any negative impacts of the project, or for enhancing its benefits;
- It will enable the proponent to incorporate the needs, preferences and values of I&APs into their decisions; and
- It contributes toward maintaining a healthy, vibrant democracy.

How can you get involved?

- Register as a stakeholder by completing the attached comment response form;
- Propose ideas to solve problems that arise during the consultation process;
- Voice your concerns about proposed projects and their potential impact; and

The Roles and Responsibilities of the Stakeholder

Registered stakeholders have the right to bring to the attention of the competent authority any issues that they believe may be of significance to the consideration of the application. The rights of stakeholder are qualified by certain obligations, namely:

- Stakeholders must ensure that their comments are submitted within the timeframes that have been approved by the competent authority, or within any extension of a timeframe agreed by the applicant or EAP;
- A copy of comments submitted directly to the competent authority must be served on the applicant or EAP; and
- Any direct business, financial, personal or other interest that they might have in the approval or refusal of the application must be disclosed.

The roles of stakeholders in a public participation process usually include one or more of the following:

- Assisting in the identification and prioritisation of issues that need to be investigated;
- Making suggestions on alternatives and means of preventing, minimising and managing negative impacts and enhancing project benefits;
- Assisting in or commenting on the development of mutually acceptable criteria for the evaluation of decision options;
- Contributing information on public needs, values and expectations;
- Contributing local and traditional knowledge; and
- Verifying that their issues have been considered.

In order to participate effectively, stakeholders should:

- Become involved in the process as early as possible;
- Register as a stakeholder;
- Advise the EAP of other stakeholders who should be consulted;
- Contribute towards the design of the public participation process (including timeframes) to ensure that it is acceptable to all stakeholders;
- Follow the process once it has been accepted;
- Read the material provided and actively seek to understand the issues involved;
- Give timeous responses to correspondence;
- Be respectful and courteous towards other stakeholders;
- Refrain from making subjective, unfounded or ill-informed statements; and
- Recognise that the process is confined to issues that are directly relevant to the application.
- Assist with information that will contribute to a thorough study

Figure 1: Location of the proposed site

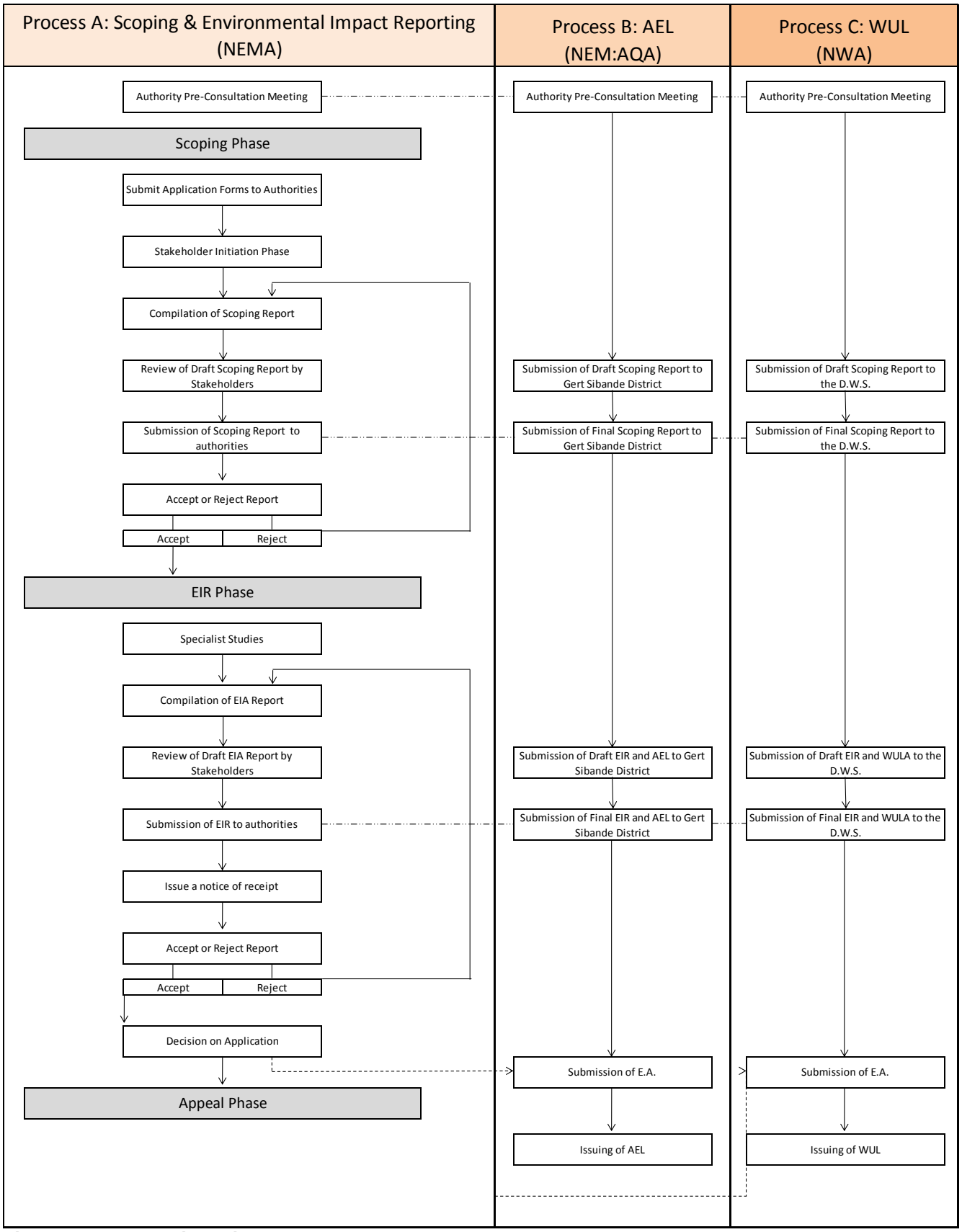


Figure 2: Process Flow Diagram

REGISTRATION / COMMENT FORM

SCOPING AND ENVIRONMENTAL IMPACT REPORTING (S&EIR) PROCESS AND WATER USE LICENCE (WUL) APPLICATION PROCESS FOR HI-FOS (PTY) LTD PROPOSED PHOSPHORIC ACID PLANT, STANDERTON, MPUMALANGA

PLEASE COMPLETE AND RETURN THIS FORM SO THAT WE HAVE YOUR COMPLETE CONTACT DETAILS

Closing date for comments: 8 December 2016

PARTICULARS OF STAKEHOLDER

Name			
Postal Address			
		Post code	
Street Address			
		Post code	
Tel		**E-Mail**	
Cell		**Fax**	
Language Preference			

COMMENTS

DATE

If you are aware of any people who should be contacted in this process, please provide their details here

Please add additional pages if required

Return to: Paula Tolksdorff
Terra Pacis Environmental (Pty) Ltd
PO Box 41409
Craighall, Johannesburg
2024

Tel : (011) 781 7800
Fax : 086 528 7418
Email : paula@terrapacis.co.za

Appendix 7 : Notification Letters, Faxes and Emails

From: **Nicky Maraschin** nicky@terrapacis.co.za
Subject: Hi-Fos background information document
Date: 24 October 2016 at 11:58 AM
To: Aldo Bierman aldobierman@gmail.com

NM

Dear Aldo,

I trust this finds you well.

Please find attached a background information document that provides information on the project and an opportunity for you to register as a stakeholder.

Kindly complete the registration form and return to myself at your earliest convenience.

Regards
Nicoletta Maraschin
Junior Environmental Consultant
Office No: (011) 781-7800
Cell No: (082) 551 0686
Fax No: (011) 447-7100
Email: nicky@terrapacis.co.za

Terra Pacis
environmental

SON001-2.2015
-BID-n...t16.pdf

> On 24 Oct 2016, at 11:25 AM, Aldo Bierman <aldobierman@gmail.com> wrote:
>
> Please send me the info
>
> Aldo Bierman
> 0825504038

From: **Nicky Maraschin** nicky@terrapacis.co.za
Subject: Hi-Fos background information document
Date: 24 October 2016 at 12:07 PM
To: eleorro@mweb.co.za

NM

Dear Mr. Basson,

I trust this finds you well.

Please find attached a background information document that provides information on the project and an opportunity for you to register as a stakeholder.

Kindly complete the registration form and return to myself at your earliest convenience.

Regards
Nicoletta Maraschin
Junior Environmental Consultant
Office No: (011) 781-7800
Cell No: (082) 551 0686
Fax No: (011) 447-7100
Email: nicky@terrapacis.co.za

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SON001-2.2015
-BID-n...t16.pdf

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Date: 9 November 2016
Our Reference: *SON001.2.2015-Scoping Avail letter-pt.v1.9Nov16*

INVITATION TO COMMENT: DRAFT SCOPING REPORT FOR HI-FOS (PTY) LTD PROPOSED PHOSPHORIC ACID PLANT, STANDERTON, MPUMALANGA FOR:

1. **AN ENVIRONMENTAL AUTHORISATION IN TERMS OF SECTION 24(2) AND 24D OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NO. 107 OF 1998) REFERENCE NUMBER 1/3/1/16/G45.**
2. **AN ATMOSPHERIC EMISSIONS LICENCE IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT (NO. 39 OF 2004).**
3. **A WATER USE LICENSE APPLICATION IN TERMS OF SECTION 21 OF THE NATIONAL WATER ACT (NO. 36 OF 1998).**

Dear Stakeholder,

You are hereby invited to review and pass comments on the Draft Scoping Report for the abovementioned project. As required by relevant legislation the consultant, Terra Pacis Environmental (Pty) Ltd (Terra Pacis), must make the Draft Scoping Report available for stakeholder review.

The Draft Scoping Report is a document that includes a description of the existing and proposed activities and any feasible and reasonable alternatives, a description of the property and the environment that may be affected and the manner in which the biological, social, economic and cultural aspects of the environment may be impacted by the existing and proposed activities, a description of environmental issues and impacts, and details of the public participation process undertaken. In addition, the Draft Scoping Report contains a roadmap for the Environmental Impact Assessment (EIA) Phase specifying the methodology to be used to assess the potential impacts, and the specialists or specialist reports that are required.

AVAILABILITY OF THE DRAFT SCOPING REPORT

The Draft Scoping Report will be available for review at the following locations from the 10 November 2016 to the 10 December 2016.

PLACE	STREET	TELEPHONE
Sonskyn Kunsmis (Pty) Ltd	Minnaar Street 2, Standerton	017 712 7020
Standerton Public Library	Mbonani Mayisela, Standerton	017 712 9600
Terra Pacis	www.terrapacis.co.za	011 781 7800

Please note that substantiated issues and comments must be submitted in writing to Terra Pacis before the 10 December 2016. It would be appreciated if the comments could be made well within this period in order for us to address these comments appropriately.

If you have any further enquiries, please feel free to contact us the details provided below.

Terra Pacis – Attention Paula Tolksdorff
P.O. Box 41409, Craighall, Johannesburg, 2024, South Africa
Tel: (011) 781 7800
Fax: (011) 086 528 7418;
E-mail: paula@terrapacis.co.za

Yours Sincerely,

Paula Tolksdorff
Director – Terra Pacis Environmental