

# Decommissioning of the Kriel Power Station Asbestos Landfill Site, Mpumalanga Province

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**Notes of Focus Group Meeting  
Held on Friday, 02 August 2019**

**VENUE: 3<sup>rd</sup> Floor Boardroom, Department of Planning and  
Development, eMalahleni Local, eMalahleni**

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**Notes for the Record prepared by:**

**Nicolene Venter**

**Savannah Environmental (Pty) Ltd**

**E-mail: [publicprocess@savannahsa.com](mailto:publicprocess@savannahsa.com)**

**Note: These meeting notes are not verbatim**

***Please address any comments to Savannah Environmental at the above address***

**Venue:** 3<sup>rd</sup> Floor Boardroom, Department of Planning and Development, eMalahleni Local Municipality

**Date:** Friday, 02 August 2019

**Time:** 09h00

## MEETING ATTENDEES

Name	Organisation	Position
Erald Nkabinde	eMalahleni Local Municipality	Environmental Manager
Nkululeko Gumede		Town Planner
Mduduzi Mngomezulu		Assistant Manager: Speaker's Office
Lwando Simunca		Environmental Intern
Johanna Phetla		Environmental Compliance Officer
Khuliso Rasimphi	Eskom Holdings SOC Ltd	Senior Environmental Advisor
Reuben Maroga	Savannah Environmental (Pty) Ltd	Environmental Scientist
Nicolene Venter		Public Participation and Social Consultant

## APOLOGIES

Stanford Mofere, Nkangala District Municipality

## WELCOME AND INTRODUCTION

Nicolene Venter welcomed all present at the meeting and the time they made available to attend the meeting. She informed the attendees that the Focus Group Meeting (FGM) was held with the aim to:

- present the need for the project,
- the Basic Assessment and Public Participation Process followed to date;
- present the key environmental findings as documented in the Basic Assessment Report (BAR); and
- to obtain any comments or concerns from eMalahleni Local Municipality Officials regarding the proposed project.

NV requested the attendees to introduce themselves and their respective roles.

The Agenda as presented was accepted by the attendees and no objections were tabled for recording of the meeting for minute taking purpose.

It was confirmed by Mr Erald Nkabinde that the hard copy of the BAR was well received at their Offices.

## **BACKGROUND & TECHNICAL ASPECTS REGARDING THE PROPOSED PROJECT**

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Reuben Maroga presented the background to the proposed project and the key environmental findings as documented in the Basic Assessment Report (BAR).

### ***Proposed Decommissioning of the Asbestos Landfill Site***

Reuben Maroga informed the attendees that Eskom SOC Ltd (Eskom) is proposing the decommissioning of the Asbestos Landfill Site at their Kriel Power Station (PS). The landfill site was constructed to enable the Kriel PS to dispose of and bury their asbestos waste in a responsible and environmentally acceptable manner. The landfill site has not been used since 2008, however, Kriel PS continues to be operationally liable in terms of the Permit issued by the then Department of Water and Forestry (permit no B33/2/200/71/P21).

As the landfill site is not being utilised since 2008, a Waste Management Licence (WMLO) and a Closure Certificate for decommissioning the Asbestos Landfill Site is required from the Department of Environment, Forestry and Fisheries (DEFF) – previously Department of Environmental Affairs.

### ***Basic Assessment Process***

Reuben informed the attendees that the proposed project requires Environmental Authorisation (EA) in terms of the National Environmental Management Act, 2014 (NEMA), and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended.

The Basic Assessment Report (BAR) has been made available for the required 30-day public review period as from Friday, 19 July 2019 until Monday, 19 August 2019. Following the conclusion of the 30-day review and comment period, the BAR will be updated, where necessary, and submitted to the competent authority, the Department of Environment, Forestry and Fisheries for decision making.

### ***Key environmental findings***

He stated that the outcome of the environmental studies undertaken by the independent specialists, the outcome of the assessments are as follows:

- no fatal flaws are associated with the proposed project; and
- all impacts associated with the decommissioning of the Asbestos Landfill Site at the Kriel Power Station were found to be environmentally acceptable.

### ***Sensitivity analysis***

The attendees were informed that no sensitive areas have been identified within footprint of the Ash Dam and the Kriel Power Station.

Copy of the presentation is attached as **Appendix A**.

**DISCUSSION SESSION**

Question / Comment	Response
<p>Johanna Phetla informed the project team that information was presented regarding the impacts on ground and surface water during the decommissioning phase of the project but no information regarding the management and monitoring during the decommissioning phase.</p>	<p>Reuben Maroga replied that Kriel Power Station (PS) does comply with the required management and monitoring of its ground and surface water and does conduct detailed monitoring of the quality of the water at the Kriel PS. It is believed that there should not be any additional information or add-ons required to the Closure Plan. However, the monitoring of ground- and surface water for asbestos fibres are included in the Closure Plan and it will be monitored annually for a 10-year period during the decommissioning phase of the landfill site.</p> <p>Khuliso Rasimphi informed the attendees that there will be no disturbance at the asbestos landfill area. The site was purposefully authorized to be constructed in the wet ashing site and the reason being that with the continuous disposal of the wet ash, the asbestos is being buried deeper and deeper at an approximate depth of 20m to 30m. It was also confirmed that no ash will be reclaimed from the area where the asbestos landfill site is situated to ensure that no asbestos are being exposed. The area will therefore be barricaded to ensure no tampering or unauthorized entry in the area, and it was also confirmed that no activities will take place at the asbestos landfill site. The landfill site was purposefully authorized to form part of the ash facility.</p> <p>The attendees was informed that Mr Lucas Mahlangu, Official from the Department of Environmental Affairs (DEA), visited the Kriel PS and standing at the site, it was asked where the asbestos landfill site is – because the asbestos landfill site is located within the ash dam, it is well compacted and one cannot see it with the naked eye. Only the ash dam is visible.</p>
<p>Nkululeko Gumede enquired for confirmation purposes that the asbestos is not porous and therefore not airborne.</p>	<p>Khuliso Rasimphi informed the attendees that a study was conducted by SRK on the disposing of asbestos fiber at the Kriel PS and the recommendation was to dispose of the</p>

	<p>asbestos in the ash dam as this process will prevent the exposure of asbestos fiber into the air. This correlates with the specialist's study for Komati PS of which the outcome and recommendations was the same as for the Kriel PS.</p> <p>It must also be kept in mind that the ash dam is lined with a double layer of a membrane to prevent leakage.</p>
<p>Nkululeko Gumede asked for clarification that it can therefore be confirmed that the area was tested and that there is no possibility that particles would be airborne and be harmful to humans.</p>	<p>Khuliso Rasimphi confirmed that testing is being done regularly and the results are that no particles are airborne.</p>
<p>Erald Nkabinde requested that Savannah Environmental elaborate on the Closure Plan as the picture as included in the presentation showed the following which is a concern:</p> <ul style="list-style-type: none"> <li>• there are vehicle tracks which one can assume there are activities taking place at the landfill site which could cause disturbance to the landfill site; and</li> <li>• there are patches of white substances on the ground at the landfill site and it is not clear what these substances are.</li> </ul>	<p>Reuben Maroga responded that the picture used in the presentation does not indicate the exact asbestos landfill site as the landfill site is located on top of the ash dam.</p> <p>The vehicle track on the picture is at the foot of the ash dam and only Kriel PS operation staff have access to the ash facility.</p> <p>The white substances depicted on the picture are ash deposits and it needs to be kept in mind that wet ash becomes as hard as cement.</p>
<p>Erald Nkabinde raised the question whether the asbestos landfill site was designed and established in 1992 and thereafter the site was established as an ash dam.</p>	<p>Khuliso Rasimphi replied that the ash dam facility was first established and in 1992 the asbestos landfill site was established on top of the ash dam.</p> <p>The attendees' attention was drawn to the fact that the asbestos landfill site was approved by the then Department of Water and Forestry (DWAF).</p>
<p>Erald Nkabinde enquired whether the disposing of asbestos on top of the ash dam was legally allowed.</p>	<p>Khuliso Rasimphi confirmed that Kriel PS has been issued with a license authorizing the PS to dispose of asbestos in a responsible manner.</p> <p>The attendees were also informed that the authorization issued for the asbestos landfill site stated that once the license expire or no more asbestos will be required to be disposed that the site can be closed-off. However, the relevant authority notified Kriel PS that the authorized process is not acceptable and that the site</p>

	needs to be officially decommissioned and that a detailed Decommissioning Plan needs to be in place.
Erald Nkabinde asked what the Decommissioning Plan entails i.e. leave it as.	Khuliso Rasimphi replied that mitigation measures will be in place such as rehabilitation of the area by capping the site, put layers of soil dressing, seeding, etc.
Erald Nkabinde asked that it be confirmed that the area will be completely closed off with no access to the site, even for monitoring purposes.	Khuliso Rasimphi confirmed that the area will be completely closed off and that monitoring will be done by walking to the site, no vehicle access.  The attendees were informed to keep in mind that the asbestos is buried deep within the wet ash dam approximately 50m deep.
Erald Nkabinde informed the project team that in terms of the environment, it is always best to take the "risk aversion" approach, thereby ensuring that there would not even be a slight change of exposure. It was also recommended that dust buckets be used to monitor any possible pollution from the asbestos landfill site.	Khuliso Rasimphi confirmed that Kriel PS already utilized the dust bucket system for monitoring purposes. Although the area will be cordoned off, driving on top of or in proximity of the asbestos decommissioned landfill site will not result in asbestos being exposed.
Erald Nkabinde enquired regarding the quantity of asbestos stored in the landfill site.	Reuben Maroga replied that it is approximately 50m <sup>3</sup> per year resulting in 800m <sup>3</sup> over a 16-year period (from 1992 – 2008).
Erald Nkabinde requested that the volume be provided in Kg.	Khuliso Rasimphi estimated that it could be approximately 80 000kg.  It was agreed that the information regarding the volume be provided in the minutes.  <b>Post meeting note:</b> The amount of waste contained within the asbestos landfill site is equivalent to 800 tons.
Nkululeko Gumede enquired whether there is any better alternative for disposing of asbestos that the current process.	Khuliso Rasimphi replied that burying asbestos within wet ash dams are the best way to deal with asbestos and that the same process is being followed at Platkop.  Holfontein landfill site makes use of ash from Kendal to close their sites.
Erald Nkabinde informed the project team that eMalahleni Local Municipality supports the project <b>subject</b> to the finalization of the Rezoning of Kriel Power Station.	Khuliso Rasimphi undertook to see the matter regarding the re-zoning of Kriel Power Station through and will be in contact with the

	eMalahleni Local Municipal Officials regarding this matter.
<b><i>The following points were discussed between the eMalahleni Local Municipality Officials and Eskom and not recorded as the discussions fell outside Savannah Environmental's scope of work:</i></b>	
<ul style="list-style-type: none"><li>• The ash being disposed of at Kriel PS, is it purely ash generated by Kriel PS or from other surrounding Eskom Power Stations.</li><li>• When ash is sold, is it directly from the ash dam or from elsewhere.</li><li>• Whether there are other scientific ways of disposing of ash.</li><li>• Recommend that Eskom pay for research to be done for better use of ash.</li><li>• For what other purposes can ash be used?</li><li>• The matter of Rezoning Kriel Power Station property from Agriculture to Industrial / Commercial has been reiterated at the meeting.</li></ul>	

## **WAY FORWARD AND CLOSURE**

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Nicolene Venter thanked everyone for their valuable contribution.

Nicolene closed the meeting at 11h20.

# **APPENDIX A**

## Meeting Presentation



**DECOMMISSIONING OF THE KRIEL  
POWER STATION ASBESTOS LANDFILL SITE**

**MPUMALANGA PROVINCE**

Focus Group Meeting

2 August 2019



**MEETING AGENDA**

1. Welcome and Introduction
2. Purpose of the Meeting
3. Project Overview
4. Basic Assessment (BA) Process
5. Discussion Session
6. Way Forward



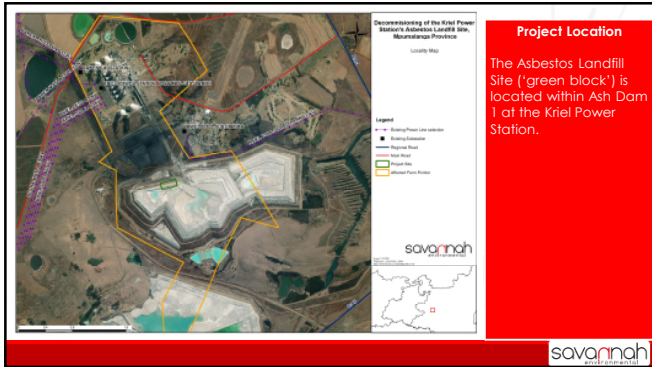
**PROJECT TEAM**

- » Savannah Environmental (Pty) Ltd:
- » **Appointed as the Environmental Assessment Practitioner (EAP); and**
- » Responsible for:
  - \* **Basic Assessment Process; and**
  - \* **Public Participation (PP) Process**
- » **The Applicant** – Eskom Holdings SOC Limited



**PROJECT OVERVIEW**





### PROJECT OVERVIEW

- Eskom Holdings SOC Ltd is proposing the decommissioning of an Asbestos Landfill Site at the Kriel Power Station in the Mpumalanga Province.
- The landfill site was constructed to enable the station to dispose of and bury asbestos waste.
- The landfill site has not been used since 2008, however, the station continues to be operationally liable in terms of the permit (B33/2/200/71/P21) issued by the then Department of Water and Forestry (DWAF).

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### PROJECT OVERVIEW

- It is for this reason that a Waste Management Licence (WML) and a Closure Certificate for decommissioning the Asbestos Landfill Site is required from the Department of Environmental Affairs (DEA).
- Please note that the decommissioning of the Asbestos Landfill Site will not be associated with any construction-related activities: the site is completely encapsulated within Ash Dam 1 and it is covered by a thick pavement or succession of ash.

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### PROJECT OVERVIEW

Photographs illustrating the current status of the Asbestos Landfill Site, which is encapsulated and entirely buried by successive layers of cemented ash/sludge following years of disposal on top of the asbestos landfill site, and subsequent compaction.

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## PROJECT OVERVIEW

• The landfill site was developed in the form of a void to accommodate multiple cells within which double-lined and impermeable heavy-duty plastic bags containing asbestos in the form of ceiling boards, insulation material and other asbestos-containing material from other areas of the station were disposed of.

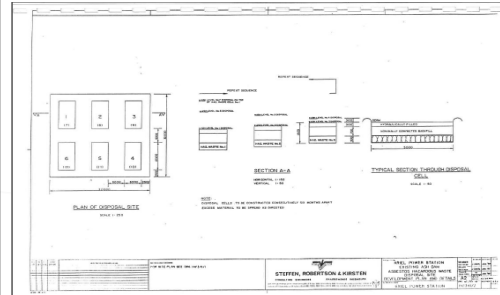
• The cells had an area of 50 square metres and were located 15m deep from the surface of surrounding ash layer at the time.

• Each cell had a capacity of 70 cubic metres and from 1992 – 2008, only 50 cubic metres of asbestos waste was disposed of per annum.



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## PROJECT OVERVIEW



An illustration of the void and the cells that were used to contain asbestos waste at the Kriel Power Station from 1992 – 2008.

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## BASIC ASSESSMENT PROCESS

### BASIC ASSESSMENT PROCESS

- » The proposed decommissioning of the Asbestos Landfill Site at the Kriel Power Station requires:
  - A **Waste Management Licence (WML)** in terms of NEMA (Act No 107 of 1998) of 1998, NEMWA (Act No. 59 of 2008) of 2008, Government Notice Regulation 921 of November 2013 and the EIA Regulations (2014), as amended, specifically for the decommissioning of the asbestos landfill activity.
- » A **BA Report** has been prepared & is available for a 30-day public review:
  - **Friday, 19 July – Monday, 19 August 2019**
- » Following the conclusion of the 30-day public review period a **Final BA Report** will be prepared & submitted to Department of Environmental Affairs (DEA).

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## BASIC ASSESSMENT PROCESS



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## OUTCOMES OF THE BA PROCESS

- »A number of impacts from a **biophysical** perspective.
- »**No fatal flaws** are associated with this project; and
- »All impacts associated with the decommissioning of the Asbestos Landfill Site are **environmentally acceptable**.

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## ENVIRONMENTAL IMPACTS

Aspect	Impact	Mitigation Measure(s)
Groundwater	Impact on groundwater resources as a result of infiltration of asbestos particles or erosion of run-off flows over or around Ash Dam 1 and the possible seepage of water through cracks/fissures on the dried sections of the ash dam could lead to ingress of water at greater depths.	<ul style="list-style-type: none"> <li>• Ash must not be reclaimed from this portion of Ash Dam 1;</li> <li>• Conduct visual inspections of Ash Dam 1 annually to inspect for cracks and fissures along the slopes, or any potential of breach/exposure of the asbestos waste material;</li> <li>• Inform relevant Eskom staff members on the exact location of the Asbestos Landfill Site and they must be informed that no reclamation, earthworks or vehicle movement within the footprint of the landfill site is permitted; and</li> <li>• Any potential breach/exposure must be closed and filled with suitable material.</li> </ul>

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## ENVIRONMENTAL IMPACTS

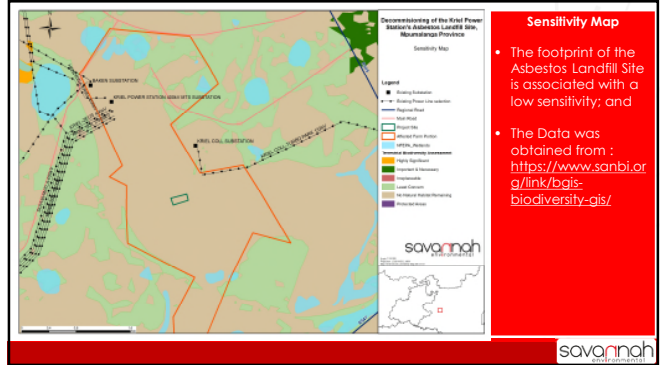
Aspect	Impact	Mitigation Measure(s)
Surface Water Quality and Soil Contamination	Possible contamination of nearby soils by asbestos fiber particles and surface water resources' deterioration as a result of infiltration and erosion by surface water run-off flows over/or around Ash Dam 1.	<ul style="list-style-type: none"> <li>• Conduct surface water monitoring for asbestos fibers annually (for a 10-year period) following the decommissioning of the landfill site; and</li> <li>• Ensure a suitable SWMP is maintained for the ash dam, as per the current Kriel Power Station Management practices</li> </ul>

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## SENSITIVITY ANALYSIS

- » No sensitive areas have been identified within the footprint of the Ash Dam and the Kriel Power Station.
- » An Environmental Sensitivity Map is included.

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## PLEASE DIRECT COMMENTS TO:


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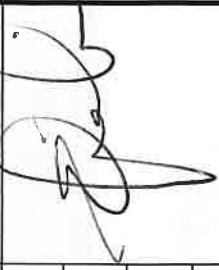
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## WAY FORWARD

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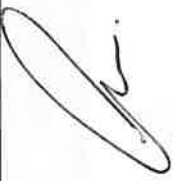
ATTENDANCE REGISTER			
<b>Project</b>	Decommissioning of the Kriel Power Station Asbestos Landfill Site, Mpumalanga Province		Focus Group Meeting: eMalahleni Local Municipality
<b>Date</b>	Friday, 02 August 2019	<b>Time</b>	10h00
		<b>Venue</b>	3 <sup>rd</sup> Floor, Dept of Development & Planning, eMalahleni

Organization	Name & Postal Address	Contact Details	Signature
Eskom Holdings SOC Ltd	Mr Khuliso Ramaphi	Tel: 017 615 2634	
<b>Designation</b>		Fax: 086 6 77 624	
<i>Senior Advisor</i>		Cell: 076 250 2002	
		Email: rasimpkj@eskom.co.za	

Organization	Name & Postal Address	Contact Details	Signature
eMalahleni Local Municipality	Erald Nkabinde	Tel: 013 690 6350	
<b>Designation</b>		Fax:	
<i>Manager</i>		Cell: 072 596 4904	
		Email: 911960@emalahleni.gov.za / nkabindee@emalahleni.gov.za	

Organization	Name & Postal Address	Contact Details	Signature
eMalahleni Local Municipality	Mpho Makgalemele	Tel:	
<b>Designation</b>		Fax:	
		Cell:	
		Email: S302182@Emalahleni.gov.za	

Organization	Name & Postal Address	Contact Details	Signature
eMalahleni Local Municipality	Thabani Buthelezi	Tel: Fax: Cell: Email: S302122@Emalahleni.gov.za	
<b>Designation</b>			

Organization	Name & Postal Address	Contact Details	Signature
eMalahleni Local Municipality	Mduduzi Mngomezulu	Tel: Fax: Cell: 0716060117 Email: S114950@Emalahleni.gov.za	
<b>Designation</b>	<i>Assistant Mayor Speaker</i>		

Organization	Name & Postal Address	Contact Details	Signature
eMalahleni Local Municipality	Tersia Mahlasela	Tel: Fax: Cell: Email: S301096@Emalahleni.gov.za	
<b>Designation</b>			

Organization	Name & Postal Address	Contact Details	Signature
eMalahleni Local Municipality	Shadrack Ndlovu	Tel: Fax: Cell: Email: S302888@Emalahleni.gov.za	
<b>Designation</b>			


Organization	Name & Postal Address	Contact Details	Signature
eMalahleni Local Municipality	Petros Siliinda	Tel: Fax: Cell: Email: S210252@Emalahleni.gov.za	
<b>Designation</b>			


Organization	Name & Postal Address	Contact Details	Signature
eMalahleni Local Municipality	Botha,	Tel: Fax: Cell: Email: health3@web4us.co.za	
<b>Designation</b>			
Sectional Head: Health			


Organization	Name & Postal Address	Contact Details	Signature
eMalahleni Local Municipality	Sandile Vilakazi	Tel: Fax: Cell: Email: S915200@Emalahleni.gov.za	
<b>Designation</b>			


Organization	Name & Postal Address	Contact Details	Signature
Nkangala District Municipality	Stanford Mofore	Tel: Fax: Cell: Email: mafores@nkangaladm.gov.za	
<b>Designation</b>			<b>APOLOGIES</b>




Organization	Name & Postal Address	Contact Details	Signature
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	Email: reuben@savannahsa.com		

Organization	Name & Postal Address	Contact Details	Signature
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Public Participation & Social Consultant	Cell: 083 377 9112		
	Email: nicolene@savannahsa.com		

Organization	Name & Postal Address	Contact Details	Signature
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Intern	Cell: 078 932 2569		
	Email:		

Organization	Name & Postal Address	Contact Details	Signature
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Env Compliance Officer	Cell: 072 855 4805		
	Email: Pretorius@emalahleni.gov.za		

Organization	Name & Postal Address	Contact Details	Signature
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Designation		Fax:	
Town Planner		Cell: 072 213 1093	
		Email: gumehe@elmh.com.co	

Organization	Name & Postal Address	Contact Details	Signature
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