

# Basic Assessment Report



edtea

Department :  
Economic Development, Tourism and  
Environmental Affairs

**PROVINCE OF KWAZULU-NATAL**

(For official use only)

EIA File Reference Number:  
NEAS Reference Number:  
Waste Management Licence Number:  
(if applicable)  
Date Received:

DC/
KZN/EIA/

## BASIC ASSESSMENT REPORT

Submitted in terms of the Environmental Impact Assessment Regulations, 2010 promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998)

This template may be used for the following applications:

- **Environmental Authorization** subject to basic assessment for an activity that is listed in Listing Notices 1 or 3, 2010 (Government Notices No. R 544 or No. R 546 dated 18 June 2010); or
- **Waste Management Licence** for an activity that is listed in terms of section 20(b) of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) for which a basic assessment process as stipulated in the EIA Regulations must be conducted as part of the application (refer to the schedule of waste management activities in Category A of Government Notice No. 718 dated 03 July 2009).

### Kindly note that:

1. This **basic assessment report** meets the requirements of the EIA Regulations, 2010 and is meant to streamline applications. This report is the format prescribed by the KZN Department of Economic Development, Tourism & Environmental Affairs. Please make sure that this is the latest version.
2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with text.
3. Where required, place a cross in the box you select.
4. An incomplete report will be returned to the applicant for revision.
5. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it will result in the rejection of the application as provided for in the regulations.
6. No faxed or e-mailed reports will be accepted.
7. The report must be compiled by an independent environmental assessment practitioner ("EAP").
8. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
9. The KZN Department of Economic Development, Tourism & Environmental Affairs may require that for specified types of activities in defined situations only parts of this report need to be completed.
10. The EAP must submit this basic assessment report for comment to all relevant State departments that administer a law relating to a matter affecting the environment. This provision is in accordance with Section 24 O (2) of the National Environmental Management Act 1998 (Act 107 of 1998) and such comments must be submitted within 40 days of such a request.
11. **Please note that this report must be handed in or posted to the District Office of the KZN Department of Economic Development, Tourism & Environmental Affairs to which the application has been allocated (please refer to the details provided in the letter of acknowledgement for this application).**

*"Leading the attainment of inclusive growth for job creation and economic sustenance"*



## DEPARTMENTAL REFERENCE NUMBER(S)

File reference number (EIA):	
File reference number (Waste Management Licence):	

## SECTION A: DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER AND SPECIALISTS

### 1. NAME AND CONTACT DETAILS OF ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

Name and contact details of the EAP who prepared this report:

Business name of EAP:	<b>Nature's Environmental Agency</b>		
Physical address:	<b>27 Umkhamba Drive, Ladysmith 3370</b>		
Postal address:	<b>27 Umkhamba Drive, Ladysmith 3370</b>		
Postal code:	<b>3370</b>	Cell:	<b>074 141 4157</b>
Telephone:	<b>036 631 0806</b>	Fax:	<b>086 272 4442</b>
E-mail:	<a href="mailto:enviroagency@gmail.com"><b>enviroagency@gmail.com</b></a>		

### 2. NAMES AND EXPERTISE OF REPRESENTATIVES OF THE EAP

Names and details of the expertise of each representative of the EAP involved in the preparation of this report:

Name of representative of the EAP	Education qualifications	Professional affiliations	Experience at environmental assessments (yrs)
<b>Dan Mkhwanazi</b>	<b>B.Sc.</b>	<b>IAIAsa</b>	<b>16</b>
<b>Slindile Ngubeni</b>	<b>BA Enviro Man</b>	<b>IAIAsa</b>	<b>3</b>

### 3. NAMES AND EXPERTISE OF SPECIALISTS

Names and details of the expertise of each specialist that has contributed to this report:

Name of specialist	Education qualifications	Field of expertise	Section/ s contributed to in this basic assessment report	Title of specialist report/ s as attached in Appendix D
<b>Mike Hemingway</b>	<b>B. Eng.</b>	<b>Civil Eng.</b>	<b>Geotechnical Studies</b>	<b>NA</b>
<b>Simphiwe Mtshali</b>	<b>B.Sc. Hon</b>	<b>Water Resources</b>	<b>Water Resource</b>	<b>NA</b>

## SECTION B: ACTIVITY INFORMATION

### 1. PROJECT TITLE

Describe the project title as provided on the application form for environmental authorization:

The proposed extension of Colenso Cemetery on Remainder of Erf 152, Colenso, Emnambithi-Ladysmith Municipality, UThukela District, KwaZulu-Natal.

### 2. PROJECT DESCRIPTION

Provide a detailed description of the project:

The proposed development is the extension of existing Colenso Cemetery on Remainder of Erf 152, Colenso, Emnambithi-Ladysmith Municipality. Emnambithi-Ladysmith municipality proposes about 6.269746 ha of burial space for Colenso community. The site will consist of burials space, control access point and fencing of the entire site.

### 3. ACTIVITY DESCRIPTION

Describe each listed activity in Listing Notice 1 (GNR 544, 18 June 2010), Listing Notice 3 (GNR 546, 18 June 2010) or Category A of GN 718, 3 July 2009 (Waste Management Activities) which is being applied for as per the project description:

Activity 44 of R544 of 2014 EIA regulations:

"The expansion of cemeteries by 2500 square metres or more."

### 4. FEASIBLE AND REASONABLE ALTERNATIVES

**"alternatives"**, in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

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

Describe alternatives that are considered in this report. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the

proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Sections B 5 – 15 below should be completed for each alternative.

## 5. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees, minutes and seconds. List alternative sites were applicable.

	Latitude (S):			Longitude (E):		
<b>Alternative:</b> Alternative S1 <sup>1</sup> (preferred or only site alternative)	28°	45'	18.56"	29°	50'	08.61"
Alternative S2 (if any)	0	'	"	0	'	"
Alternative S3 (if any)	0	'	"	0	'	"

**In the case of linear activities:**

	Latitude (S):			Longitude (E):		
<b>Alternative:</b> Alternative S1 (preferred or only route alternative)						
• Starting point of the activity	0	'	"	0	'	"
• Middle point of the activity	0	'	"	0	'	"
• End point of the activity	0	'	"	0	'	"
Alternative S2 (if any)						
• Starting point of the activity	0	'	"	0	'	"
• Middle point of the activity	0	'	"	0	'	"
• End point of the activity	0	'	"	0	'	"
Alternative S3 (if any)						
• Starting point of the activity	0	'	"	0	'	"
• Middle point of the activity	0	'	"	0	'	"
• End point of the activity	0	'	"	0	'	"

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 500m along the route for each alternative alignment.

## 6. PHYSICAL SIZE OF THE ACTIVITY

Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

<b>Alternative:</b>	<b>Size of the activity:</b>
Alternative A1 <sup>2</sup> (preferred activity alternative)	62697.46 m <sup>2</sup>

<sup>1</sup> "Alternative S." refers to site alternatives.

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Alternative A2 (if any)  
Alternative A3 (if any)  
or, for linear activities:

	m <sup>2</sup>
	m <sup>2</sup>

**Alternative:**

**Length of the activity:**

Alternative A1 (preferred activity alternative)  
Alternative A2 (if any)  
Alternative A3 (if any)

	m
	m
	m

Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

**Alternative:**

**Size of the site/servitude:**

Alternative A1 (preferred activity alternative)  
Alternative A2 (if any)  
Alternative A3 (if any)

	m <sup>2</sup>
	m <sup>2</sup>
	m <sup>2</sup>

### 7. SITE ACCESS

Does ready access to the site exist?

<del>YES</del>	NO
m	

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

The site can be accessed via an existing road Forbes street which is known as cemetery road. Forbes street extends from R74. Widening and tarring of the entrance point at the Cemetery gate including provision for parking will be required.

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

### 8. SITE OR ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this report.

The site or route plans must indicate the following:

- 8.1. the scale of the plan which must be at least a scale of 1:500;
- 8.2. the property boundaries and numbers/ erf/ farm numbers of all adjoining properties of the site;
- 8.3. the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 8.4. the exact position of each element of the application as well as any other structures on the site;

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<sup>2</sup> "Alternative A.." refer to activity, process, technology or other alternatives.

- 8.5. the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 8.6. walls and fencing including details of the height and construction material;
- 8.7. servitudes indicating the purpose of the servitude;
- 8.8. sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
  - rivers, streams, drainage lines or wetlands;
  - the 1:100 year flood line (where available or where it is required by DWA);
  - ridges;
  - cultural and historical features;
  - areas with indigenous vegetation including protected plant species (even if it is degraded or infested with alien species);
- 8.9. for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- 8.10. the positions from where photographs of the site were taken.

## 9. SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this report. It must be supplemented with additional photographs of relevant features on the site, if applicable.

## 10. FACILITY ILLUSTRATION

A detailed illustration of the facility must be provided at a scale of 1:200 and attached to this report as Appendix C. The illustrations must be to scale and must represent a realistic image of the planned activity/ies.

## 11. ACTIVITY MOTIVATION

### 11.1. Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R 200 000
What is the expected yearly income that will be generated by or as a result of the activity?	R
Will the activity contribute to service infrastructure?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Is the activity a public amenity?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
How many new employment opportunities will be created in the development phase of the activity?	10
What is the expected value of the employment opportunities during the development phase?	R
What percentage of this will accrue to previously disadvantaged individuals?	%
How many permanent new employment opportunities will be created during the operational phase of the activity?	

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What is the expected current value of the employment opportunities during the first 10 years?	R
What percentage of this will accrue to previously disadvantaged individuals?	%

### 11.2. Need and desirability of the activity

Motivate and explain the need and desirability of the activity (including demand for the activity):

There is an urgent need for burial space in Colenso area as a result of the existing cemetery being almost full. A number of sites in and around Colenso were inspected for a suitable place for burial site and there were evaluated against each other looking at ownership, size, zoning, accessibility, terrain and environmental conditions. Remainder Erf 152 which is the adjacent site to the existing cemetery was found most suitable place for extension of Colenso Cemetery. Emnambithi/Ladysmith Municipality has experience an increasing difficulty in finding new suitable areas for burial space for all communities within its boundary, hence extending Colenso Cemetery with the adjacent site and based on conditions evaluated was regarded most suitable area. All the Municipality aims at is to provide people with dignified burial place and families to be able to visit the site to mourn their loved ones.

Indicate any benefits that the activity will have for society in general:

The planning for cemetery is a delicate and intricate process and it is one place that receives mention with caution and dignity from most cultures. The community will greatly benefit from the proposed cemetery extension by providing families with decent and dignified final resting place. The Colenso community have been using the existing Colenso cemetery for a long time to bury their loved ones and the extension will promote a socio-cultural connection to the cemetery. The development of the new cemetery will also promote socio-economic growth as it will create permanent and temporal employment opportunities.

Indicate any benefits that the activity will have for the local communities where the activity will be located:

The planning for cemetery is a delicate and intricate process and it is one place that receives mention with caution and dignity from most cultures. The community will greatly benefit from the proposed cemetery extension by providing families with decent and dignified final resting place. The Colenso community have been using the existing Colenso cemetery for a long time to bury their loved ones and extension will promote a socio-cultural connection to the cemetery. The development of the new cemetery will also promote socio-economic growth as it will create permanent and temporal employment opportunities.

## 12. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are relevant to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline: \_\_\_\_\_ Administering authority: \_\_\_\_\_ Date: \_\_\_\_\_



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a. The Constitution of the Republic of South Africa	All authorities	1996
b. Cemetery and Crematoria Act	Dept. of Local Government and Traditional Affairs	1996
c. Heritage Resources Act	Amafa and Dept. of Arts and Culture	1999
d. National Water Act	Dept. of Water Affairs	1998
e. Health Act	Dept. of Health	1977
f. Conservation of Agricultural Resources Act	Dept. of Agriculture	1983
g. KwaZulu Land Affairs Act	Dept. of Local Government and Traditional Affairs	1992
h. KwaZulu-Natal Planning and Development Act	Dept. of Local Government and Traditional Affairs	1999
i. Municipal Cemetery and Crematoria, Funeral Parlours By-Laws	Local Municipality	2004
j. Emnambithi-Ladysmith IDP	Emnambithi-Ladysmith Municipality	2015/16

### 13. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

#### 13.1. Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase? 

<del>YES</del>	NO
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If yes, what estimated quantity will be produced per month?

	m <sup>3</sup>
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How will the construction solid waste be disposed of? (describe)

Waste generated will be in a form of broken bricks and poles from the construction of access point control/security room and fencing. Generated waste will be disposed of at an approved landfill site ( Colenso Waste Disposal Site)
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Where will the construction solid waste be disposed of? (provide details of landfill site)

Colenso Waste Disposal Site
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Will the activity produce solid waste during its operational phase?

YES	<del>NO</del>
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If yes, what estimated quantity will be produced per month?

	m <sup>3</sup>
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How will the solid waste be disposed of? (provide details of landfill site)

The burial activity does not produce any waste.
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Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

N/A
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If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine the further requirements of the application.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation? 

YES	NO
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**If yes, contact the KZN Department of Economic Development, Tourism & Environmental Affairs to obtain clarity regarding the process requirements for your application.**

Is the activity that is being applied for a solid waste handling or treatment facility? 

YES	NO
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**If yes, contact the KZN Department of Economic Development, Tourism & Environmental Affairs to obtain clarity regarding the process requirements for your application.**

### 13.2. Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system? 

YES	NO
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If yes, what estimated quantity will be produced per month?

Will the activity produce any effluent that will be treated and/or disposed of on site? 

Yes	NO
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**If yes, contact the KZN Department of Economic Development, Tourism & Environmental Affairs to obtain clarity regarding the process requirements for your application.**

Will the activity produce effluent that will be treated and/or disposed of at another facility? 

YES	NO
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If yes, provide the particulars of the facility:

Facility name:	N/A		
Contact person:			
Postal address:			
Postal code:			
Telephone:	Cell:		
E-mail:	Fax:		

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

N/A
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### 13.3. Emissions into the atmosphere

Will the activity release emissions into the atmosphere? 

YES	NO
-----	----

If yes, is it controlled by any legislation of any sphere of government? 

YES	NO
-----	----

**If yes, contact the KZN Department of Economic Development, Tourism & Environmental Affairs to obtain clarity regarding the process requirements for your application.**

If no, describe the emissions in terms of type and concentration:

Limited dust generation during the construction of access point control/security point and fencing and by excavator when digging of graves
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### 13.4. Generation of noise

Will the activity generate noise? 

YES	NO
-----	----

If yes, is it controlled by any legislation of any sphere of government? 

YES	NO
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If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the noise in terms of type and level:

The noise that will be generated by the activity will be due to excavator digging graves, traffic and the singing of religious sermons during burial ceremonies. This is usually done on weekends mainly Saturday and the digging of graves can also occur on weekdays during normal working hours (07h00 to 17h00).

### 14. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es):

Municipal X	water board	groundwater	river, stream, dam or lake	other	the activity will not use water
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If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

litres	
YES	NO

Does the activity require a water use permit from the Department of Water Affairs?

If YES, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this report.

### 15. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

N/A

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

N/A

## SECTION C: SITE/ AREA/ PROPERTY DESCRIPTION

### Important notes:

- For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area, which is covered by each copy No. on the Site Plan.

Section C Copy No.   
(e.g. A):

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- Subsections 1 - 6 below must be completed for each alternative.

### 1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

**Alternative S1:**

<del>Flat</del>	1:50 1:20	-	1:20 1:15	-	1:15 – 1:10	1:10 1:7,5	-	1:7,5 – 1:5	Steeper than 1:5
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**Alternative S2 (if any):**

Flat	1:50 1:20	-	1:20 1:15	-	1:15 – 1:10	1:10 1:7,5	-	1:7,5 – 1:5	Steeper than 1:5
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**Alternative S3 (if any):**

Flat	1:50 1:20	-	1:20 1:15	-	1:15 – 1:10	1:10 1:7,5	-	1:7,5 – 1:5	Steeper than 1:5
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### 2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site (**Please cross the appropriate box**).

**Alternative S1 (preferred site):**

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	Open valley	Plain	Undulating plain/low hills	Dune	Sea-front	

**Alternative S2 (if any):**

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	Open valley	Plain	Undulating plain/low hills	Dune	Sea-front	

**Alternative S3 (if any):**

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	Open valley	Plain	Undulating plain/low hills	Dune	Sea-front	

### 3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Has a specialist been consulted for the completion of this section?

YES	<del>NO</del>
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If YES, please complete the following:

Name of the specialist:	N/A		
Qualification(s) of the specialist:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

Are there any rare or endangered flora or fauna species (including red data species) present on any of the alternative sites?	YES	NO
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If YES, specify and explain:	N/A	
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Are there any special or sensitive habitats or other natural features present on any of the alternative sites?	YES	NO
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If YES, specify and explain:	N/A	
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Are any further specialist studies recommended by the specialist?	YES	NO
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If YES, specify:	N/A	
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If YES, is such a report(s) attached in <u>Appendix D</u> ?	YES	NO
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Signature of specialist: \_\_\_\_\_ Date: \_\_\_\_\_

Is the site(s) located on any of the following (cross the appropriate boxes)?

	Alternative S1:		Alternative S2 (if any):		Alternative S3 (if any):	
Shallow water table (less than 1.5m deep)	YES	<del>NO</del>	YES	NO	YES	NO
Dolomite, sinkhole or doline areas	YES	<del>NO</del>	YES	NO	YES	NO
Seasonally wet soils (often close to water bodies)	YES	<del>NO</del>	YES	NO	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES	<del>NO</del>	YES	NO	YES	NO
Dispersive soils (soils that dissolve in water)	YES	<del>NO</del>	YES	NO	YES	NO
Soils with high clay content (clay fraction more than 40%)	YES	<del>NO</del>	YES	NO	YES	NO
Any other unstable soil or geological feature	YES	<del>NO</del>	YES	NO	YES	NO
An area sensitive to erosion	YES	<del>NO</del>	YES	NO	YES	NO

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. (Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted).

### 4. GROUND COVER

Has a specialist been consulted for the completion of this section?  YES  NO

If YES, please complete the following:

Name of the specialist:	N/A		
Qualification(s) of the specialist:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	
Are there any rare or endangered flora or fauna species (including red data species) present on any of the alternative sites?	YES	NO	
If YES, specify and explain:	N/A		
Are there any special or sensitive habitats or other natural features present on any of the alternative sites?	YES	NO	
If YES, specify and explain:	N/A		
Are any further specialist studies recommended by the specialist?	YES	NO	
If YES, specify:	N/A		
If YES, is such a report(s) attached in Appendix D?	YES	NO	

Signature of specialist: \_\_\_\_\_ Date: \_\_\_\_\_

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The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

<del>Natural veld - good condition<sup>E</sup></del>	Natural veld with scattered aliens <sup>E</sup>	Natural veld with heavy alien infestation <sup>E</sup>	Veld dominated by alien species <sup>E</sup>	Gardens
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil

If any of the boxes marked with an “E” is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn’t have the necessary expertise.

### 5. LAND USE CHARACTER OF SURROUNDING AREA

Cross the land uses and/or prominent features that currently occur within a 500m radius of the site and give a description of how this influences the application or may be impacted upon by the application:

Land use character	YES	NO	Description
Natural area	YES	<del>NO</del>	
Low density residential	<del>YES</del>	NO	Mgazi township
Medium density residential	<del>YES</del>	NO	Schemes Residential houses
High density residential	YES	<del>NO</del>	
Informal residential	YES	<del>NO</del>	
Retail commercial & warehousing	YES	<del>NO</del>	
Light industrial	YES	<del>NO</del>	
Medium industrial	YES	<del>NO</del>	
Heavy industrial	YES	<del>NO</del>	
Power station	YES	<del>NO</del>	
Office/consulting room	YES	<del>NO</del>	
Military or police base/station/compound	YES	<del>NO</del>	
Spoil heap or slimes dam	YES	<del>NO</del>	
Quarry, sand or borrow pit	YES	<del>NO</del>	
Dam or reservoir	YES	<del>NO</del>	
Hospital/medical centre	YES	<del>NO</del>	
School/ crèche	<del>YES</del>	NO	ML Sultan Primary School
Tertiary education facility	YES	<del>NO</del>	
Church	<del>YES</del>	NO	Shembe Church
Old age home	YES	<del>NO</del>	
Sewage treatment plant	YES	<del>NO</del>	
Train station or shunting yard	YES	<del>NO</del>	
Railway line	YES	<del>NO</del>	
Major road (4 lanes or more)	YES	<del>NO</del>	
Airport	YES	<del>NO</del>	
Harbour	YES	<del>NO</del>	
Sport facilities	YES	<del>NO</del>	
Golf course	YES	<del>NO</del>	
Polo fields	YES	<del>NO</del>	
Filling station	YES	<del>NO</del>	

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Landfill or waste treatment site	YES	<del>NO</del>	
Plantation	YES	<del>NO</del>	
Agriculture	YES	<del>NO</del>	
River, stream or wetland	<del>YES</del>	NO	Unknown small stream which extends from UThukela river.
Nature conservation area	YES	<del>NO</del>	
Mountain, hill or ridge	YES	<del>NO</del>	
Museum	YES	<del>NO</del>	
Historical building	YES	<del>NO</del>	
Protected Area	YES	<del>NO</del>	
Graveyard	<del>YES</del>	NO	Colenso Cemetery
Archaeological site	YES	<del>NO</del>	
Other land uses (describe)	YES	<del>NO</del>	

### 6. CULTURAL/ HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or paleontological sites, on or within 20m of the site?

YES	<del>NO</del>
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If YES, contact a specialist recommended by AMAFA to conduct a heritage impact assessment. The heritage impact assessment must be attached as an appendix to this report.

Briefly explain the recommendations of the specialist:

N/A

Will any building or structure older than 60 years be affected in any way?

YES	<del>NO</del>
YES	<del>NO</del>

Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

If YES, please submit the necessary application to AMAFA and attach proof thereof to this report.

## SECTION D: PUBLIC PARTICIPATION

### 1. ADVERTISEMENT

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

- (a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the competent authority) at a place conspicuous to the public at the boundary or on the fence of—
  - (i) the site where the activity to which the application relates is or is to be undertaken; and
  - (ii) any alternative site mentioned in the application;

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- (b) giving written notice to—
  - (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
  - (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  - (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  - (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
  - (v) the local and district municipality which has jurisdiction in the area;
  - (vi) any organ of state having jurisdiction in respect of any aspect of the activity (as identified in the application form for the environmental authorization of this project); and
  - (vii) any other party as required by the competent authority;
- (c) placing an advertisement in—
  - (i) one local newspaper; or
  - (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
- (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or district municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and
- (e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to—
  - (i) illiteracy;
  - (ii) disability; or
  - (iii) any other disadvantage.

## 2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

- (a) indicate the details of the application which is subjected to public participation; and
- (b) state—
  - (i) that an application for environmental authorization has been submitted to the KZN Department of Economic Development, Tourism & Environmental Affairs in terms of the EIA Regulations, 2010;(ii)
  - (iii) a brief project description that includes the nature and location of the activity to which the application relates;
  - (iv) where further information on the application can be obtained; and
  - (iv) the manner in which and the person to whom representations in respect of the application may be made.

## 3. PLACEMENT OF ADVERTISEMENTS AND NOTICES



Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the competent authority in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of the EIA regulations.

Advertisements and notices must make provision for all alternatives.

#### 4. DETERMINATION OF APPROPRIATE PROCESS

The EAP must ensure that the public participation process is according to that prescribed in regulation 54 of the EIA Regulations, 2010, but may deviate from the requirements of subregulation 54(2) in the manner agreed by the KZN Department of Economic Development, Tourism & Environmental Affairs as appropriate for this application. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate.

Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

#### 5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before this application is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations (regulation 57 in the EIA Regulations, 2010) and be attached as Appendix E to this report.

#### 6. PARTICIPATION BY DISTRICT, LOCAL AND TRADITIONAL AUTHORITIES

District, local and traditional authorities (where applicable) are all key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of this application and provided with an opportunity to comment.

Has any comment been received from the district municipality?

YES  NO

If "YES", briefly describe the feedback below (also attach any correspondence to and from this authority with regard to this application):

No comments have been received as yet; all comments will be included on the final BAR.

Has any comment been received from the local municipality?

YES  NO

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If "YES", briefly describe the feedback below (also attach any correspondence to and from this authority with regard to this application):

No comments have been received as yet, all comments will be included on the final BAR

Has any comment been received from a traditional authority?

YES  NO

If "YES", briefly describe the feedback below (also attach any correspondence to and from this authority with regard to this application):

The development do not impact directly or indirectly on to the Traditional Authorities or their land

### 7. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the site or property, such as servitude holders and service providers, should be informed of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?

YES  NO

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

No comments have been received as yet, all comments will be included on the final BAR.

## SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the requirements in the EIA Regulations, 2010, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

### 1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

No comments have been received from I&APs, all comments received will be attached on the final BAR.

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached as Appendix E to this report):

No comments have been received from I&APs, all comments received will be attached on the final BAR.

### 2. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

**2.1. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN PHASE**

**a. Site alternatives**

List the potential impacts associated with site alternatives that are likely to occur during the planning and design phase:

**Alternative S1 (preferred alternative)**

**Direct impacts:**

- Since it an extension to the existing cemetery, no impacts associated with planning and design expected.
- The site is easily accessible via Forbes Street (known as cemetery road).
- There will be no visual change to land use due to the adjacent/existing cemetery and the community is used to the area being the burial place.

**Indirect impacts:**

- Since it an extension to the existing cemetery, no impacts associated with planning and design expected.

**Cumulative impacts:**

- Since it an extension to the existing cemetery, no impacts associated with planning and design expected.

**Alternative S2 (if any): There is no alternative site**

**Direct impacts:**

N/A

**Indirect impacts:**

N/A

**Cumulative impacts:**

N/A

**No-go alternative (compulsory)**

**Direct impacts:**

- No impacts expected for no-go option, except for the rising demand of burial place in Colenso.

**Indirect impacts:**

- None expected.

**Cumulative impacts:**

- None expected.

Indicate mitigation measures to manage the potential impacts listed above:

**Alternative S1**

**Alternative S2**

<ul style="list-style-type: none"> <li>• Compilation of Environmental Management Plan (EMP) to address all the impacts associated with construction and operation of the new cemetery, and must be approved by DEDTEA. The EMP must ensure regular monitoring and auditing for compliance.</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
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**b. Process, technology, layout or other alternatives**

List the impacts associated with any process, technology, layout or other alternatives that are likely to occur during the planning and design phase (please list impacts associated with each alternative separately):

**Alternative A1 (preferred alternative): Underground Burial**

**Direct impacts:**

- None expected

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**Indirect impacts:**

- None expected

**Cumulative impacts:**

- None expected

**Alternative A2 (if any): Cremation**

**Direct impacts:**

- None expected

**Indirect impacts:**

- None expected

**Cumulative impacts:**

- None expected

**No-go alternative (compulsory)**

**Direct impacts:**

- None expected

**Indirect impacts:**

- None expected

**Cumulative impacts:**

- None expected

Indicate mitigation measures to manage the potential impacts listed above:

**Alternative A1:**

N/A

**Alternative A2:**

N/A

## 2.2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION PHASE

### a. Site alternatives

List the potential impacts associated with site alternatives that are likely to occur during the construction phase:

**Alternative S1 (preferred site)**

**Direct impacts:**

- Clearance of vegetation
- Loss of Habitat
- Traffic congestion during delivery of material and construction activities.
- Noise generation during construction activities which might disturb the opposite school.
- Visual impacts due to construction of fence
- Dust generation during construction activities.
- Soil and water contamination due to spills/leaks of hazardous substances (cement, paint, oil or fuel) during construction.
- Employment opportunities (contractors and contraction workers).
- Crime (community members stealing material such as poles and fence during construction

**Indirect impacts:**

- Surface and ground water pollution.
- Soil erosion as a result of clearance of vegetation and soil stockpiling.

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**Cumulative impacts:**

- Waste generation as a result of construction rubble.

**Alternative S2 (if any): There is no alternative site**

**Direct impacts:**

N/A

**Indirect impacts:**

N/A

**Cumulative impacts:**

N/A

**No-go alternative (compulsory)**

**Direct impacts:**

- No impacts associated with construction activities will occur
- The urgent demand for burial space would remain a major issue
- Loss of employment opportunities.
- No burial place means there will be an increase of illegal or informal burials
- Pollution of surface and ground water

**Indirect impacts:**

- No impacts associated with construction activities will occur

**Cumulative impacts:**

- No impacts associated with construction activities will occur

Indicate mitigation measures to manage the potential impacts listed above:

**Alternative S1**

**Vegetation:**

- Clearance of vegetation must be limited to demarcated area for grave yard
- All disturbed areas must be rehabilitated with indigenous vegetation to avoid soil erosion.

**Traffic congestion:**

- Delivery vehicles and those working onsite must be serviced and maintained to a good standard at all times.
- Delivery of materials must not be done during peak hours to avoid traffic.
- Road must be maintained to a good condition to avoid potholes.

**Noise:**

- Noise generation must be kept to minimum levels and comply with the Occupational Health and Safety Act (Act No. 85 of 1993).
- Consultation with the school principal informing the school about the temporal noise during construction.
- All vehicles working onsite must be kept at good conditions to avoid noisy sound.
- All construction activities must be limited to normal working hours.

**Alternative S2**

There is no alternative site found suitable for the cemetery. Colenso have limited space for new developments.

<p><b>Visual:</b></p> <ul style="list-style-type: none"> <li>• Construction waste generated must be removed and deposited to Colenso disposal site.</li> </ul> <p><b>Air quality:</b></p> <ul style="list-style-type: none"> <li>• Dust suppression measures must be applied onsite if dust levels rise above acceptable levels, such as water spraying and commercial suppressants.</li> </ul> <p><b>Accidental spillages:</b></p> <ul style="list-style-type: none"> <li>• All hazardous substance must be mixed or used on impermeable substances to avoid soil and water contamination.</li> <li>• Contaminated soil must be removed and disposed of at hazardous landfill</li> </ul> <p><b>Soil erosion:</b></p> <ul style="list-style-type: none"> <li>• Removal of vegetation must be limited to targeted area for grave yard.</li> <li>• Bare areas must be re-vegetated after construction.</li> <li>• Stormwater management plan must be implemented on site</li> </ul>	
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**b. Process, technology, layout or other alternatives**

List the impacts associated with process, technology, layout or other alternatives that are likely to occur during the construction phase (please list impacts associated with each alternative separately):

**Alternative A1 (preferred alternative): Underground burial**

**Direct impacts:**

- Removal of vegetation.
- Visual impacts as a result of construction of fence, security point and access road.
- Noise generation during construction activities.
- Air pollution due to dust and emissions from vehicles during construction.
- Soil and water contamination due to spillages/leaks of cement, oil, fuel, etc.
- Generation of waste (construction debris).
- Soil erosion due to bare soil and stockpiles.
- Possible damages to the road
- Employment opportunities.

**Indirect impacts:**

- Surface water run-off due poor stormwater management.

**Cumulative impacts:**

- Waste generation of construction rubble that going to increase waste deposited on Colenso landfill site.

**Alternative A2: Cremation**

**Direct impacts:**

- Clearance of vegetation on the demarcated area for construction cremation
- Traffic congestion as a result of delivery trucks transporting material.

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- Dust generation during construction activities
- Noise generation
- Contamination of surface and ground water.
- Possible damages to the road.
- Safety risks
- Contamination of soil due to spills/leaks of oil and fuel

**Indirect impacts:**

- Cultural rejection due to strong cultural beliefs.

**Cumulative impacts:**

- Waste generation (concrete remains)

**No-go alternative (compulsory)**

**Direct impacts:**

- No-go option means there will be no impacts associated with construction.
- There will be increase to demand of burial space in Colenso, causing a strain on the Emnambithi/Ladysmith Municipality.
- Increase in illegal/informal burial which can lead to health hazards and pollution.

**Indirect impacts:**

- None expected

**Cumulative impacts:**

- None expected

Indicate mitigation measures to manage the potential impacts listed above:

**Alternative A1:**

- Minimise the removal of vegetation to demarcated area for the cemetery.
- Stockpiled topsoil must be to rehabilitate bare land and disturbed areas as soon after completing construction of fence and crematory place.
- Noise associated with construction must be limited to normal working hours, and ensure all vehicles are kept on good conditions at all times.
- Dust suppression measures must be implemented on site such as use of water or commercial suppressants, as well as maintaining the vehicles working onsite to a good condition to avoid emissions.
- Effective stormwater management plan must be implemented on site. And ensure that use/mixing of hazardous substances are done on impermeable surfaces.

**Alternative A2:**

- Clearance of vegetation must be limited to demarcated area for building a crematorium.
- Erection of construction signs to make the community aware of the construction activities to use other roads to avoid traffic.
- Effective stormwater management plan must be implemented on site.
- Roads must be maintained to a good condition at all times.
- Noise associated with construction must be limited to normal working hours, and ensure all vehicles are kept on good conditions at all times.
- Safety of workers must be a priority, all workers must wear PPE.
- Mixing of hazardous must occur on impermeable harden surfaces.
- Waste generated on site must

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<ul style="list-style-type: none"> <li>• Construction remains must be removed and deposited on Colenso disposal site on weekly basis.</li> <li>• Roads must be maintained to a good condition at all times.</li> </ul>	<p>be collected and disposed of on Colenso Cemetery</p>
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### 2.3. IMPACTS THAT MAY RESULT FROM THE OPERATIONAL PHASE

#### a. Site alternatives

List the potential impacts associated with site alternatives that are likely to occur during the operational phase:

##### Alternative S1 (preferred alternative)

###### *Direct impacts:*

- Clearing and levelling of the area where the graves will be place.
- Traffic congestion during funeral procession.
- Noise generation as a result of digging of graves and singing religious sermons.
- Dust generation due to traffic and excavation of graves.
- Employment opportunities to maintain to cemetery
- Soil Erosion due to poor channelling of water
- Visual impacts as result of new graves and infrastructure associated with it.

###### *Indirect impacts:*

- Contamination of groundwater due to process of decaying bodies.

###### *Cumulative impacts:*

- General waste generated by people during burial service and cemetery visits.
- Formalised burial place, hence reducing illegal/informal burial.

##### Alternative S2 (if any): There is no alternative site for the proposed activity

###### *Direct impacts:*

N/A

###### *Indirect impacts:*

N/A

###### *Cumulative impacts:*

N/A

##### No-go alternative (compulsory)

###### *Direct impacts:*

- No-option means there will be no development; hence no direct impact associated with operation will occur.
- The rising demand for burial space in Colenso will cause strain on the municipality and the residents.

###### *Indirect impacts:*

- No indirect impacts associated with operation will occur.

###### *Cumulative impacts:*

- No cumulative impacts associated with operation will occur.

Indicate mitigation measures to manage the potential impacts listed above:

**Alternative S1**

**Alternative S2**

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<ul style="list-style-type: none"> <li>• Rehabilitation of disturbed areas</li> <li>• Cemetery roads must be maintained to a good standard and ensure that funeral processions are monitored.</li> <li>• Stockpiles must be managed accordingly during burial excavations.</li> <li>• Storm Water Management Plan</li> <li>• A monitoring plan for groundwater quality must be implemented.</li> <li>• Waste disposal bins must be provided on site and litter must be cleared onsite on regular basis and deposited on registered landfill site.</li> </ul>	N/A
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### b. Process, technology, layout or other alternatives

List the impacts associated with process, technology, layout or other alternatives that are likely to occur during the operational phase (please list impacts associated with each alternative separately):

#### Alternative A1 (preferred alternative): Underground Burial

##### *Direct impacts:*

- Infestation of alien plants on the disturbed areas.
- Soil erosion due to high surface run-off.
- Contamination of ground water through the process of decaying bodies.
- Traffic Congestion during funeral procession and grave visitation.
- Noise forthcoming from earth plants digging graves and mourners singing of religious sermons.
- Dust during excavation of graves.
- Damages to the road.

##### *Indirect impacts:*

- Job opportunities for grave yard maintenance.
- Contamination of soil due to oil or fuels spills.

##### *Cumulative impacts:*

- Sidewall stability of the graves due to how deep the graves are.
- Loss of grazing land.

#### Alternative A2: Cremation

##### *Direct impacts:*

- Costs of cremation and fast process
- Surface and groundwater pollution due to water wash-off off human remains by floods or heavy rainfalls.
- Air pollution as result of emissions of smoke, fly-ash dust and odour.
- Visual Impacts
- Traffic congestion from funeral procession.
- Noise generation due to people singing religious sermons and traffic.

##### *Indirect impacts:*

- High temperatures and greenhouse gas due to heat and emissions.
- Invasive process to families due to cultural beliefs.

##### *Cumulative impacts:*

- Health risks associated with water pollution and smoke.

#### No-go alternative (compulsory)

##### *Direct impacts:*

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- None expected if the project does not proceed
- The urgent demand for burial space would remain a major issue
- Loss of employment opportunities.

**Indirect impacts:**

- None expected

**Cumulative impacts:**

- None expected

Indicate mitigation measures to manage the potential impacts listed above:

**Alternative A1**

- Bare areas must be re-vegetated immediately after construction.
- Stockpiled topsoil must be used to rehabilitate bare land and disturbed areas as soon after completing construction of fence and crematory place.
- A monitoring program must be implemented to assess the quality of groundwater on regular basis.
- Noise associated with construction must be limited to normal working hours, and ensure all vehicles are kept on good conditions at all times.
- Effective stormwater management plan must be implemented on site. And ensure that use/mixing of hazardous substances are done on impermeable surfaces.
- Noise generation will occur during normal working hours 7h00 to 17h00.
- Waste bins must be supplied on convenient spots within the cemetery, and all waste generated must be collected and disposed of at registered landfill site.

**Alternative A2**

- The crematorium must require that families use casket made of renewable cardboard and organic material such as cotton or silk.
- In the option of burying the ashes in graves, families must choose biodegradable urn.
- A monitoring program must be implemented to assess the quality of groundwater on regular basis.
- Crematorium must install or use filters that lower the release of pollutants over the air to reduce health issues associated with air pollution.
- Noise generation will occur during normal working hours 7h00 to 17h00.
- Traffic as a result of funeral procession will only be limited to few hours, mostly during daytime.

### 2.4. IMPACTS THAT MAY RESULT FROM THE DECOMMISSIONING OR CLOSURE PHASE

#### a. Site alternatives

List the potential impacts associated with site alternatives that are likely to occur during the decommissioning or closure phase:

**Alternative S1 (preferred alternative)**

A cemetery can be decommissioned when it has reached its full capacity and still will be maintained and used for family visitation to graves of loved ones. However should

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the cemetery be decommissioned, the expected impacts will be:

- Soil erosion
- Invasion of alien species.
- Water and soil pollution due to the process of decaying bodies.

### Alternative S2

**Direct impacts:**

- N/A

**Indirect impacts:**

- N/A

**Cumulative impacts:**

- N/A

### No-go alternative (compulsory)

**Direct impacts:**

- None expected

**Indirect impacts:**

- None expected

**Cumulative impacts:**

- None expected

Indicate mitigation measures to manage the potential impacts listed above:

### Alternative S1

- Rehabilitation of all disturbed areas and ensure continuous monitoring to the site.
- Ensure effective stormwater management plan.
- Regular audits and sampling of watercourse to monitor the water quality.
- Application for closure certificate with DEDTEA must be done.

### Alternative S2

- N/A

## b. Process, technology, layout or other alternatives

List the impacts associated with process, technology, layout or other alternatives that are likely to occur during the decommissioning or closure phase (please list impacts associated with each alternative separately):

### Alternative A1 (preferred alternative)

A cemetery can be decommissioned when it has reached its full capacity and still will be maintained and used for family visitation to graves of loved ones. However should the cemetery be decommissioned, the expected impacts will be:

- Soil erosion
- Invasion of alien species.
- Water pollution due to the process of decaying bodies.

### Alternative A2: CREMATION

**Direct impacts:**

- Demolition of crematory building and fence.
- Waste generation during demolition.
- Air pollution (dust and emissions)
- Infestation of alien plants
- Contamination of water and soil as result of leaks or spills hazardous substance used for cremation.

**Indirect impacts:**

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<ul style="list-style-type: none"> <li>Erosion due to hardened surfaces and high surface run-off</li> </ul> <p><b>Cumulative impacts:</b></p> <ul style="list-style-type: none"> <li>None</li> </ul>
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**No-go alternative (compulsory)**

<p><b>Direct impacts:</b></p> <ul style="list-style-type: none"> <li>No direct impacts expected, if the activity does not take place.</li> </ul> <p><b>Indirect impacts:</b></p> <ul style="list-style-type: none"> <li>No indirect impacts expected, if the activity does not take place.</li> </ul> <p><b>Cumulative impacts:</b></p> <ul style="list-style-type: none"> <li>No cumulative impacts expected, if the activity does not take place.</li> </ul>
--

Indicate mitigation measures to manage the potential impacts listed above:

Alternative A1	Alternative A2
<ul style="list-style-type: none"> <li>Rehabilitation of all disturbed areas and ensure continuous monitoring to the site.</li> <li>Ensure effective stormwater management plan.</li> <li>Regular audits and sampling of watercourse to monitor the water quality.</li> <li>Application for closure certificate with DEDTEA must be done.</li> </ul>	<ul style="list-style-type: none"> <li>Application for closure certificate with DEDTEA must be done.</li> <li>Housekeeping must be done and ensure that everything is cleared on site.</li> <li>Ensure rehabilitation of disturbed areas.</li> <li>Control management plan for removal of alien plants.</li> <li>Continuous of monitoring and maintenance of the site.</li> </ul>

### 2.5. PROPOSED MONITORING AND AUDITING

For each phase of the project and for each alternative, please indicate how identified impacts and mitigation will be monitored and/or audited.

Alternative S1 (preferred site)	Alternative S2
<ul style="list-style-type: none"> <li>Implementation of EMP and compliance with Environmental Authorisation.</li> <li>Appointment of Environmental Control Officer (ECO) to provide guidance/advice during both construction and operation of the cemetery that appropriate environmental management measures and adherence with environmental legislation are implemented on site.</li> <li>Regular audits and site inspections are carried out periodically as indicated in the EMP by suitably qualified person.</li> <li>Regular sampling of water to monitor water quality.</li> <li>During the construction phase, environmental incidents and complaints from I&amp;AP's must be investigated, recommendations will be made to mitigate and prevent further impacts and the incidents reported, where relevant, to the Applicants and/or Authorities.</li> </ul>	N/A
Alternative A1 (preferred alternative)	Alternative A2
<ul style="list-style-type: none"> <li>Implementation of EMP and compliance with Environmental</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of EMP and compliance with Environmental</li> </ul>

<p>Authorisation.</p> <ul style="list-style-type: none"> <li>• Appointment of Environmental Control Officer (ECO) to provide guidance/advice during both construction and operation of the cemetery that appropriate environmental management measures and adherence with environmental legislation are implemented on site.</li> <li>• Regular audits and site inspections are carried out periodically as indicated in the EMPr by suitably qualified person.</li> <li>• Regular sampling of water to monitor water quality.</li> <li>• During the construction phase, environmental incidents and complaints from I&amp;AP's must be investigated, recommendations will be made to mitigate and prevent further impacts and the incidents reported, where relevant, to the Applicants and/or Authorities.</li> </ul>	<p>Authorisation.</p> <ul style="list-style-type: none"> <li>• Appointment of Environmental Control Officer (ECO) to provide guidance/advice during both construction and operation of the cemetery that appropriate environmental management measures and adherence with environmental legislation are implemented on site.</li> <li>• Regular audits and site inspections are carried out periodically as indicated in the EMPr by suitably qualified person.</li> <li>• Regular sampling of water to monitor water quality.</li> <li>• During the construction phase, environmental incidents and complaints from I&amp;AP's must be investigated, recommendations will be made to mitigate and prevent further impacts and the incidents reported, where relevant, to the Applicants and/or Authorities.</li> </ul>
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### 3. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

#### Alternative S1 (preferred site)

There is an urgent need for burial space in Colenso as a result of the existing cemetery being almost full. A number of sites in and around Colenso were inspected for a suitable place for burial site and there were evaluated against each other looking at ownership, size, zoning, accessibility, terrain and environmental conditions. Remainder of Erf 152 located which is the site next to the existing cemetery found most suitable place for extension of Colenso Cemetery. Therefore the option of extending the existing cemetery is the preferred one and comes with benefits as there will be no adverse change of land use since the community is familiar with the area being a cemetery and convenient for future graves visitation in the same area.

#### Alternative S2

There is no alternative site for the proposed development, Colenso have very limited space for development, and hence extending to Colenso cemetery on the adjacent site was found most suitable option in addition to the assessment that was done for the site.

#### Alternative A1 (preferred alternative)

Cremation does not substitute the burial process but save the space for burial. It is more environmental friendly compared to underground burial. Cremation addresses the land demand of cemeteries. The major issue which remains with cremation is cultural rejection and changing the mind set of people.

**Alternative A2**

Re-use of graves refers to when graves are re-used for burial, this can be achievable by recycling or resuming the remains, then cremate or deepens them for fresh re-burial and this is possible after a period of time. The problem is convincing or changing the mind-sets of people on how they perceive burying the dead and into looking at the bigger picture of rising demand of burial space, hence saving space by allowing multi- use of burial space.

**No-go alternative (compulsory)**

- No impacts associated with construction activities will occur.
- The urgent demand for burial space would remain a major issue.
- Loss of employment opportunities.
- No burial place means there will be an increase of illegal or informal burials.
- Pollution of surface and ground water.

## SECTION F. RECOMMENDATION OF EAP

Is the information contained in this report and the documentation attached hereto in the view of the EAPr sufficient to make a decision in respect of this report?

If "NO", please contact the KZN Department of Economic Development, Tourism & Environmental Affairs regarding the further requirements for your report.

YES	NO

If "YES", please attach the draft EMPr as Appendix F to this report and list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

**GENERAL**

**Roles and Responsibilities**

- An EMPr for site establishment, construction and operational phases must be finalised and approved by DEDTEA prior to the contractor moving onto site.
- The Environmental Control Officer (ECO) must be appointed prior to site establishment and construct to prevent contravention of the approved EMPr and Environmental Authorisation.
- An Environmental Liaison Officer (ELO) must inspect the site during the construction phase on a weekly basis.
- The working areas must be clearly demarcated by the ECO prior to commencement of the installation and no access is to be allowed to sensitive areas.
- The ECO is to conduct monthly audits and prepare monthly audit reports. Copies of these reports are to be supplied by the ECO to the developer and DEDTEA.
- The ECO's duties extend to the end of the construction phase.

**DESIGN PHASE**

**Engineering Design:**

- A stormwater management plan must be prepared once the engineer's design of the site is finalised.
- Engineering design needs to accommodate the spill containment slabs to assist in the containment accidental spillages.

**CONSTRUCTION PHASE**

**Noise Pollution:**

- During the construction phase, maintain machinery regularly, as per the manufacturer's instructions
- During the construction phase, limit working hours from 07:00 to 17:00 on weekdays, 07:00 to 13:00 on Saturday and no work must be conducted on Sundays unless for emergency purposes.

**Air Pollution:**

- During dry/windy periods water sprays precautions must be undertaken to the construction of access road.
- Construction phase stockpiles which have the potential of generating dust must be covered with plastic sheeting.
- Maintain construction vehicles and machinery to control exhaust emissions.

**Water Pollution:**

- Construction activities must remain within the footprint of the development.
- Construction machinery must be maintained by a suitably qualified mechanic, at an appropriately lined site, during working hours, so that diesel and/or oil leaks are avoided.
- Prevent run-off by constructing diversion berms and/or placing straw bales on denuded areas.

**Erosion measures:**

- Should erosion become a problem during the construction phase then diversion berms and drains shall be constructed to divert run-off away from exposed areas.
- During the construction phase, bales can be used as filters across run-off pathways.

**Accidental spillages:**

- Spills shall be cleared up immediately. The contaminated soils and the spilled material shall be taken to the nearest registered landfill site capable of receiving such spills.
- A register of all incidents shall be kept on site showing measures taken to clear up the spillages.

**Heritage Issues:**

- During construction, if heritage findings are made (graves, archaeological objects, etc.), contact AMAFA and stop the works immediately.

**Health & Safety:**

- Traffic signage shall be erected to advice people of machinery driving in the area.
- Pollution that could be detrimental to humans, flora and fauna shall be prevented as much as possible.
- Construction employees must be restricted to the development area; they must be warned not to trespass on the neighbouring properties.

**Waste Management:**

- All solid waste shall be disposed of regularly at an approved registered municipal landfill site.
- Copies of the waybills shall be kept for proof of correct disposal, where possible.
- Should accidental spillages occur; the cleaned up material and the contaminated soil must be taken to a hazardous registered landfill site.

**Construction Site:**

- Construction employees must be encouraged to keep within the proposed development site, and not trespass on private property.

**OPERATIONAL PHASE**

**Water pollution**

- An operational spill management plan must be compiled by a suitably qualified specialist and implemented.
- Accidental spillages in the filler area and the forecourt are to be contained by allowing entering the drain at the edge of the spill containment slabs, diverting the spillages to the separator located at a low point on the site.
- A certified contractor must service the separator by removing the spilt product.

**Waste Management**

- All general solid waste generated at the petroleum filling station during the operational phase must feed into the municipal waste stream.

**Stormwater**

- A stormwater management system must be implemented and maintained throughout the operational phase of the proposed development.

**Health and Safety**

- All relevant health and safety requirements under the Occupational Health and Safety Act, as amended (Act 85 of 1993) must be complied with in the operational phase of the development.

**Monitoring and Reporting**

- Routine monitoring, sampling and analysis of the early warning system should be carried out.
- Quarterly monitoring and bi-annual sampling is recommended.
- Records of monitoring must be kept and made available to the DEDTEA on request.
- Monthly stock reconciliations must be taken and recorded. These records must be made available to the Department of Water Affairs on request.
- The leak detectors must be regularly tested and records kept.
- All machinery must be maintained in good working order as to prevent soil or water pollution from oil, fuel or other leaks.



## SECTION G: APPENDIXES

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

Appendix E: Comments and responses report

Appendix F: Draft Environmental Management Programme (EMPr)

Appendix G: Other information