



BASIC ASSESSMENT REPORT

FOR

**Proposed Construction of Silonjane Fuel
Service Station and a Bed & Breakfast**

On

**Remainder of Erf 15838 Ndatshana, Nquthu Local Municipality,
Umzinyathi District Municipality, KZN**

March 2018

Author: Slindile Ngubeni

Reviewer: Dan Mkhwanazi

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:

KZN/EIA/

BASIC ASSESSMENT REPORT

Submitted in terms of the Environmental Impact Assessment Regulations, 2017 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, 2014 (Government Notices No. R 983 or No. R 985 dated 7 April 2017); 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, 2017 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.

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

Basic Assessment Report

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).**

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:	Environmental Agency		
Physical address:	27 Umkhamba Drive, Umkhamba Gardens, Ladysmith 3370		
Postal address:	27 Umkhamba Drive, Umkhamba Gardens, Ladysmith 3370		
Postal code:	3370	Cell:	074 1414 157
Telephone:	036 631 0806	Fax:	086 272 4442
E-mail:	dan@environmentalagency.co.za		

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)
Dan Mkhwanazi	B.Sc.	IAIAsa	15
Slindile Ngubeni	BA Enviro Man		3

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

SECTION B: ACTIVITY INFORMATION

1. PROJECT TITLE

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

Proposed Construction of Silonjane Fuel Service Station and a Bed & Breakfast on Remainder of Erf 15838 Ndatshana, Nquthu Local Municipality, Umzinyathi District Municipality, KwaZulu-Natal

2. PROJECT DESCRIPTION

Provide a detailed description of the project:

Proposed Construction of Silonjane Fuel Service Station (5 x 23,000L tanks, and associated dispensers) and a Bed and Breakfast on the Remainder of Erf 15838 Ndatshana, Nquthu Local Municipality, and UMzinyathi District Municipality, KwaZulu-Natal. The commercial development will consist of Filling Station with convenience shops, 41 parking bays, Bed & Breakfast, access roads and associated infrastructure.

Fuel Service Station and associated dispensers:

- Five underground petroleum storage tanks with a capacity of 23,000 litres (combined storage capacity 115 cubic metres).
- Will utilise three different of petroleum products (diesel 50ppm (two tank), Leaded Petroleum 93 (one tanks) and Unleaded Petroleum 95 (two tanks).
- The three tanks containing leaded and unleaded petroleum will be joined by a vent stack manifold with a single stack. The diesel tanks will be separately ventilated.

The proposed development site is 1, 74 ha. The site is zoned as residential and an application for rezoning to commercial will be lodged with Nquthu Local Municipality. The proposed site is located along Iswandlwana road/R68 and approximately 17km northwest of Nquthu CBD.

3. ACTIVITY DESCRIPTION

Describe each listed activity in Listing Notice 1 (GNR 983, 07 April 2017), Listing Notice 3 (GNR 985, 07 April 2017) or Category A of GN 718, 3 July 2009 (Waste Management Activities) which is being applied for as per the project description:

Indicate the number and date of the relevant notice:	Activity No (s) (in terms of the relevant or notice) :	Describe each listed activity as per the project description (and not as per wording of the relevant Government Notice) ¹ :
R983 of 7 April 2017 Listing Notice 1	14	The construction of facilities or infrastructure for the storage, or storage and handling of a fuel in 5 tanks for leaded fuel, unleaded fuel and diesel, of 23 000 L each totalling 115 000L (115 cubic metres), motor repairs workshop, access roads, parking and associated infrastructure.

¹ Please note that this description should not be a repetition of the listed activity as contained in the relevant Government Notice, but should be a brief description of activities to be undertaken as per the project description, i.e. describe the components of the desired development

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.

NO.	ALTERNATIVE TYPE	DESCRIPTION
1.	Preferred Site - Alternative Site 1: Remainder of Erf 15838	The applicant proposes construction of Silonjane Fuel Service Station and a Bed & Breakfast on Remainder of lot 15838 in Ndatshana (Nquthu). The proposed development area is 1.74 ha in extent. The preferred site is approximately 17 km northwest of Nquthu Town. Currently the site is vacant and is used as grazing land for livestock. The alternative sites were evaluated based on the soil type and erosive potential, sensitive hydrological features, accessibility and surrounding land uses. The proposed site was found suitable for the Silonjane Filling Station and a Bed & Breakfast.
2.	Proposed Alternative Site - Alternative Site 2: Remainder of Erf 15838 portion	The alternative site is located about 500m south east of the preferred site next to Buthelezi tuck shop. It is also situated next to unknown stream, hence it was not considered as a viable option for the proposed development.
3.	Alternative Process 1 - Preferred Alternative Process (Fuel Service Station and a Bed & Breakfast)	The filling station is needed as there are no fuel service station available in the area. It will not only benefit the locals but the long distance travellers who passes R68 road. The Bed & Breakfast was considered as an inclusive facility to the proposed filling station to accommodate long distance travellers, families who visits the area and those who participate in local events and locals who need accommodation within the area for various reasons like weddings, funerals, and any other events.
4.	Alternative Process 2: (Fuel Service Station and a Tourism Information Centre.	The alternative business process is constructing a Fuel Service Station and a Tourism Information Centre. This option was considered to preserve the historic information of the Nquthu Town for the benefit of tourists and information for the local community.

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.

Alternative:	Latitude (S):			Longitude (E):		
	°	'	"	°	'	"
Alternative S1 ² (preferred or only site alternative)	28°	05'	41.90"	30°	38'	08.72"
Alternative S2 (if any)	28°	05'	53.58"	30°	38'	23.84"
Alternative S3 (if any)	0	'	"	0	'	"

In the case of linear activities:

Alternative:	Latitude (S):			Longitude (E):		
	°	'	"	°	'	"
Alternative S1 (preferred or only route alternative)						
<ul style="list-style-type: none"> Starting point of the activity Middle point of the activity End point of the activity 	0	'	"	0	'	"
Alternative S2 (if any)						
<ul style="list-style-type: none"> Starting point of the activity Middle point of the activity End point of the activity 	0	'	"	0	'	"
Alternative S3 (if any)						
<ul style="list-style-type: none"> Starting point of the activity Middle point of the activity 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):

Alternative:	Size of the activity:
Alternative A1 ³ (preferred activity alternative)	17480 m ²
Alternative A2 (if any)	31845 m ²
Alternative A3 (if any)	m ²

or, for linear activities: N/A

Alternative:	Length of the activity:

² "Alternative S.." refer to site alternatives.

³ "Alternative A.." refer to activity, process, technology or other alternatives.

Basic Assessment Report

Alternative A1 (preferred activity alternative)	M
Alternative A2 (if any)	M
Alternative A3 (if any)	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)	m ²
Alternative A2 (if any)	m ²
Alternative A3 (if any)	m ²

7. SITE ACCESS

Does ready access to the site exist?	YES NO
If NO, what is the distance over which a new access road will be built	M
Describe the type of access road planned:	

Site is easily accessible, located along P258 Road and new access points will be constructed as per Department of Transport standards.

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;
- 8.5. the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, Stormwater 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;

Basic Assessment Report

- 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?
- What is the expected yearly income that will be generated by or as a result of the activity?
- Will the activity contribute to service infrastructure?
- Is the activity a public amenity?
- How many new employment opportunities will be created in the development phase of the activity?
- What is the expected value of the employment opportunities during the development phase?
- 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?
- What is the expected current value of the employment opportunities during the first 10 years?
- What percentage of this will accrue to previously disadvantaged individuals?

R10 million
R6 million
YES NO
YES NO
40
R2 million
95%
20
R14 million
98%

11.2. Need and desirability of the activity

Basic Assessment Report

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

The proposed Silonjane Filling Station would be well situated and would have a desirable effect as it will complement the area and service the motorist in the area, the long distance travellers and attract new businesses in the area. There would be a positive economic impact of medium significance as developers would consider investing on it. There is a perceived need for petroleum filling station which would help in reducing the distance travelled to get to town. The proposed filling station will service drivers that frequently passes by P258, Isandlwana road/R68 and the broader community of Ndatshana / Nquthu. The proposed project will also benefit the community in terms of employment opportunities during construction and operation phase. The site is located along the P258 road which makes it easily accessible.

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

The proposed Silonjane Filling Station will increase employment opportunities for Ndatshana communities during construction and operational phase. The new petroleum filling station will enhance better service of the fuel retail demand. And also the petroleum filling station will be in close proximity to users. It will be operated 24/7 leading to the reliability of services offered and sustainability of the business enterprise.

Other auxiliary services will also improve service, employment, and contribute to local economic development to Ndatshana (Silonjane) communities are:

- Bed and Breakfast: offers overnight accommodation and breakfast, very beneficial for long distance travellers.
- Convenience shop: offers to fast food and emergency household items, resulting savings to town trips
- Car wash: offers convenience and controlled car cleaning service leading to water savings
- Mechanics Workshop: offers convenience and provides professional service at the doorstep.

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

- The proposed Silonjane Filling Station will
- Provide employment for Ndatshana communities during construction and operational phase.
 - Enhance better service of the fuel retail demand.
 - Reduce congestion on the roads to town.
 - Reduce crime by offering a 24/7 business with high visibility in the area.
 - Improve sustainability of other SMMEs e.g. self-employed mechanics.

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:

a. The Constitution of the Republic of South Africa	All authorities	1996
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Basic Assessment Report

b. Heritage Resources Act	Amafa and Dept. of Arts and Culture	1996
c. National Water Act	Dept. of Water Affairs	1999
d. Health Act	Dept. of Health	1998
e. KwaZulu Land Affairs Act	Dept. of Local Government and Traditional Affairs	1992
f. South African Bureau of Standards, SABS 089-3-1999, Third Edition. Code of practise - The petroleum industry, Part 3: The installation of underground storage tanks, pumps/dispensers and pipework at service station and consumer installations.	South African Bureau of Standards	1999
g. Umzinyathi District IDP	Umzinyathi District municipality	2016/17
h. Nquthu Local Municipality IDP	Nquthu Local Municipality	2016/17
i. Nquthu Local Municipality SDF	Nquthu Local Municipality	2016/17

13. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

13.1. Solid waste management

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

<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
40m ³	

If yes, what estimated quantity will be produced per month?

How will the construction solid waste be disposed of? (describe)

General waste (40 tons) and hazardous waste (approximately 0.5 tons) will be collected and stored separately according to the specific requirements of the waste type. General waste will be disposed at an approved general waste (Nquthu Waste Disposal Site). Hazardous waste (spilt fuels and oils and contaminated soils and waste) will be collected by an approved waste disposal Service Provider, and disposed of to an approved hazardous waste disposal landfill site.

Where will the construction solid waste be disposed of? (provide details of landfill site)

Nquthu Waste Disposal Site

Will the activity produce solid waste during its operational phase?

<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
m ³	

If yes, what estimated quantity will be produced per month?

How will the solid waste be disposed of? (provide details of landfill site)

- Domestic waste generated on site will feed into the Municipal waste stream.
- Hazardous waste generated at the workshop will be collected by an approved hazardous waste collector for recycling and/or disposal.

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

Basic Assessment Report

Hazardous waste generated at the workshop will be collected by an approved hazardous waste collector for recycling and/or disposal

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?

N/A

Will the activity produce any effluent that will be treated and/or disposed off onsite?

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:		
Contact person:		
Postal address:		
Postal code:		
Telephone:		
E-mail:	Fax:	

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

- An integrated waste water management approach that is based the following:
- Slow dispensing taps at washbays
 - Dry water car wash system
 - Reuse of grey water for irrigation of gardens
 - Usage of brooms instead of water spray for cleaning the court yard

13.3. Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

YES	NO
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If yes, is it controlled by any legislation of any sphere of government?

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.

Basic Assessment Report

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

Dust and vehicle emissions will be released into the atmosphere during the construction phase.
Emissions released from the site during the construction and operational phases are considered to be negligible and are expected to be well below the ambient emission standards.

13.4. Generation of noise

Will the activity generate noise?

YES	NO
YES	NO

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

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:

- Limited noise will be generated by construction vehicles and machinery during construction. Limitation in the construction hours will alleviate this impact.
- Noise may be generated by vehicles entering and exiting the site, personnel and customers at the filling station and the associated facilities

The amount of noise generated at the site during the construction and operational phases is considered to be negligible, and is not expected to exceed the existing ambient noise levels in the area.

14. WATER USE

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

municipal	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:

<p>Standard PFS (Petrol Fuel Station) construction designs will apply.</p> <ul style="list-style-type: none"> • The contractor will be advised to transport all construction materials on site at the same time where possible and the collection of waste material conducted simultaneous with other activities to reduce the amount energy for such transportation. • The use of low energy lighting and solar lights and geysers will be considered subject to PFS designs. • No direct light and intrusive lighting shall be used that will affect properties adjacent to the Filling Station. • Low visibility and soft lights will be used.

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

Solar system is being considered subject to PFS design and suitability.

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):

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

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

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 S2 (if any): NONE

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): NONE

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):

Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	Open valley	Plain	Undulating plain/low hills	Dune	Sea-front
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Alternative S2 (if any):

Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	Open valley	Plain	Undulating plain/low hills	Dune	Sea-front
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Alternative S3 (if any):

Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	Open valley	Plain	Undulating plain/low hills	Dune	Sea-front
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3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

YES	NO
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If YES, please complete the following:

Name of the specialist:	N.A. Vukea		
Qualification(s) of the specialist:	Engineering Geologist (Pr. Sci. Nat)		
Postal address:	26 Virgo The Cosmos, Kosmosdal, Samrand		
Postal code:	0157		
Telephone:		Cell:	073 964 7323
E-mail:	naudney@yahoo.com	Fax:	086 601 1667

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: November 2015

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	NO	YES	NO	YES	NO
Dolomite, sinkhole or doline areas	YES	NO	YES	NO	YES	NO
Seasonally wet soils (often close to water bodies)	YES	NO	YES	NO	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES	NO	YES	NO	YES	NO
Dispersive soils (soils that dissolve in water)	YES	NO	YES	NO	YES	NO
Soils with high clay content (clay fraction more than 40%)	YES	NO	YES	NO	YES	NO
Any other unstable soil or geological feature	YES	NO	YES	NO	YES	NO

Basic Assessment Report

An area sensitive to erosion

YES	NO	YES	NO	YES	NO
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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
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If YES, please complete the following:

Name of the specialist:	NA		
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:	NA		
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:	NA		
Are any further specialist studies recommended by the specialist?	YES	NO	
If YES, specify:	NA		
If YES, is such a report(s) attached in <u>Appendix D</u> ?	YES	NO	

Signature of specialist: N/A Date:

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

Natural veld - good condition^E	Natural veld with scattered aliens ^E	Natural veld with heavy alien infestation ^E	Veld dominated by alien species ^E	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:

Basic Assessment Report

Land use character	YES	NO	Description
Natural area	YES	NO	Undeveloped but reserved sites
Low density residential	YES	NO	
Medium density residential	YES	NO	
High density residential	YES	NO	
Informal residential	YES	NO	Ncome rural township
Retail commercial & warehousing	YES	NO	Zenzele Trading Store is 300m away
Light industrial	YES	NO	
Medium industrial	YES	NO	
Heavy industrial	YES	NO	
Power station	YES	NO	
Office/consulting room	YES	NO	
Military or police base/station/compound	YES	NO	
Spoil heap or slimes dam	YES	NO	
Quarry, sand or borrow pit	YES	NO	
Dam or reservoir	YES	NO	
Hospital/medical centre	YES	NO	
School/ crèche	YES	NO	Thembekile Primary School
Tertiary education facility	YES	NO	
Church	YES	NO	
Old age home	YES	NO	
Sewage treatment plant	YES	NO	
Train station or shunting yard	YES	NO	
Railway line	YES	NO	
Major road (4 lanes or more)	YES	NO	
Airport	YES	NO	
Harbour	YES	NO	
Sport facilities	YES	NO	
Golf course	YES	NO	
Polo fields	YES	NO	
Filling station	YES	NO	
Landfill or waste treatment site	YES	NO	
Plantation	YES	NO	
Agriculture	YES	NO	
River, stream or wetland	YES	NO	
Nature conservation area	YES	NO	
Mountain, hill or ridge	YES	NO	
Museum	YES	NO	
Historical building	YES	NO	
Protected Area	YES	NO	
Graveyard	YES	NO	
Archaeological site	YES	NO	
Other land uses (describe)	YES	NO	

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	NO
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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.

Basic Assessment 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

~~NO~~

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

YES

~~NO~~

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;
- (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 sub-regulation 44(c)(ii); and

Basic Assessment Report

- (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, 2017;(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 44 of the EIA Regulations, 2017, but may deviate from the requirements of sub-regulation 44(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 47 in the EIA Regulations, 2017) 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):

There are no comments received as yet, all comments will be attached on the Final BAR.

Has any comment been received from the local 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 attached 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):

No comments have been received as yet; all comments will be attached on the Final BAR.

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 attached on the Final BAR.

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the requirements in the EIA Regulations, 2017, 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.

1. Mr Mathe – supports the project and hopes that the process can be speed up to 3 months.
2. Mr Mlondolozzi Zwane - want to find out how many stores will the garage have.
3. Mr Thulani Motaung - as it was mentioned that waste will be taken to the municipal landfill site, can that truck also take the community waste which is the problem in the area.
4. Mr Molefe - will there be a borehole and where will be wastewater disposed?
5. Mr Khumalo - highly recommends that no screening of the filling station with trees, the area needs lights due to the high crime rate. Lighting of the fuel station will deter criminal activities.
6. Mr Mthloug - happy and support the project. Will also report back to the tribal court about the project progress.
7. Mrs Masondo - happy and supports the projects. This development will stop the crime at the roads intersection.

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):

1. Unfortunately, the process cannot be speed up, as it goes according to EIA regulations which specifies the schedule that must be followed, however the process is expected to take about 4 – 5 months.
2. The filling station law permit only one forecourt store; therefore, the proposed filling station will incorporate a convenience shop as well as the Bed & Breakfast can have one shop (e.g. craft shop). But the community can still open other shop next to the garage or outside it footprint.
3. The waste generated onsite by the Fuel Station and Bed and Breakfast will be disposed correctly at Nquthu landfill site, must not be buried nor burnt onsite. Also this will be on the owners' expenses. The community waste is the Municipality's responsibility.
4. Yes, there will be a borehole as a source of water supply. And there will be septic tank which can be in a form of concrete, PVC or plastic to handle sewage/wastewater. Sewage tank will be honey sucked regularly.
5. Noted
6. Noted
7. Noted

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)	Mitigation Measures
<p>Direct impacts:</p> <ul style="list-style-type: none"> • Rezoning of land to commercial • Removal of alien invasive plants • Adequate provision of services and infrastructure. • Needs and desirability confirmed the sustainability of the project. <p>Indirect impacts:</p> <ul style="list-style-type: none"> • Traffic management to be taken into account • Access to services on site • Hiring of labour <p>Cumulative impacts:</p> <ul style="list-style-type: none"> • Traffic congestion • Lighting pollution for residents. • Waste management 	<ul style="list-style-type: none"> • Ensure the planning undertaken by engineers appointed takes cognisance of the responsibility to preserve the natural environment. • Evaluate designs and provide recommendations to limit and reduce potential negative environmental, social and economic impacts associated with the proposed activities. • Ensure that project is compatible with IDP projects. • Access road design must be approved by Traffic department to ensure traffic management

Alternative S2 (if any):	Mitigation Measures
<p>Direct impacts:</p> <ul style="list-style-type: none"> • Rezoning of the land to commercial • Appointments of staff • Approval of building plans with the municipality. • Removal of vegetation and alien invasive plants. <p>Indirect impacts:</p> <ul style="list-style-type: none"> • Traffic management plan • Development of access roads <p>Cumulative impacts:</p> <ul style="list-style-type: none"> • Waste management plan for construction (domestic and hazardous waste) 	<ul style="list-style-type: none"> • Rezoning application must be lodged with Nquthu Local Municipality. • Proper Planning and adequate evaluation of designs to ensure negative impacts associated with poor design are avoided at all cost. • Ensure that project is compatible with IDP projects. • Traffic Management Plan must be approved by Traffic Department. • Waste management Plan must be implemented to ensure domestic and hazardous waste is handled appropriately during construction and operation.

No-go alternative (compulsory)	Mitigation Measures
Direct impacts:	N/A

Basic Assessment Report

<ul style="list-style-type: none"> • Loss of diversification of businesses in Ndatshana • Inability to fulfil Local Economic Developments objectives of the Municipality. • Failure to use land appropriately <p>Indirect impacts:</p> <ul style="list-style-type: none"> • Loss of employment • Lack of services in the area <p>Cumulative impacts:</p> <ul style="list-style-type: none"> • None 	
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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) Filling Station and a Bed & Breakfast	Mitigation Measures
<p>Direct impacts:</p> <ul style="list-style-type: none"> • Demarcation of the site • Approval of building plans • Loss of grass and vegetation during demarcation and land preparation. • Light pollution • Potential soil pollution due to leaking tanks <p>Indirect impacts:</p> <ul style="list-style-type: none"> • Increased traffic • Increased stormwater <p>Cumulative impacts:</p> <ul style="list-style-type: none"> • Compatibility of the business to other neighbouring uses 	<ul style="list-style-type: none"> • Clear only vegetation on required land only. • Engineering design/Layouts must include greening. • Low visibility and soft lights must be used. • Install tank leak detectors • Ensure traffic management is per approved designs • Direct stormwater into water retaining structures • Fuel station is compatible with Bed & Breakfast, workshop, and carwash • Fuel station is not intrusive to residential areas. • Use underground tanks as they have less risk for fire and install leak detectors as prescribed by SA Garages. • All roads to be tarred.

Alternative A2 (if any): Construction of a Filling Station and Tourism Information Centre	Mitigation Measures
<p>Direct impacts:</p> <ul style="list-style-type: none"> • Issues of Rezoning of land. • Increase pressure on Municipal bulk services (Insufficient capacity of domestic water supply and sewage works). • Problems with Stormwater management systems • Loss of Employment and business opportunities • Lack of road maintenance could lead to deterioration in the internal and access road. • Potential increase of fire hazards <p>Indirect impacts:</p>	<ul style="list-style-type: none"> • Proper planning and design which must comply with all relevant legislation and policies. • Study must be done with the municipality to ensure that sufficient capacity of Bulk services for the development. • Ensure stormwater management plan. • Ensure road maintenance at all times. • Use fire protection devices • Maximise business synergies at all times

Basic Assessment Report

<ul style="list-style-type: none"> • Potential increase of crime rate • Potential decrease in property value <p>Cumulative impacts:</p> <ul style="list-style-type: none"> • Poor designs lead to traffic • Poor layout will lead to accidents on the property. 	
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No-go alternative (compulsory)	Mitigation Measures
<p>Direct impacts:</p> <ul style="list-style-type: none"> • Lack of revenue rates from businesses • Lack of services to Ndatshana residents • Lack of employment <p>Indirect impacts:</p> <ul style="list-style-type: none"> • Loss of socio-economic benefits. • Loss of skilled people to work in town • Loss of job opportunities <p>Cumulative impacts:</p> <ul style="list-style-type: none"> • Loss of development in Ndatshana 	<p>N/A</p>

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)	Mitigation Measures
<p>Direct impacts:</p> <p>Soils:</p> <ul style="list-style-type: none"> • Soil erosion could potentially occur due to construction activities, where ground stripped of vegetation is exposed to rainfall with the resultant washing away of topsoil and/or sub-soils. • Cut and fill embankments, if implemented, are also particularly vulnerable to soil erosion, if not subjected to the correct environmental management practices. • The negative impact under these circumstances is considered to have a medium significance (local extent, medium intensity, long term duration and probable). <p>Traffic Congestion:</p> <ul style="list-style-type: none"> • The construction phase is likely to generate additional traffic in terms of construction vehicles and heavy vehicles delivering materials to the site. • The significance of this negative impact is considered to be very low (local extent, low intensity, short-term duration and definite). 	<p>Soils:</p> <ul style="list-style-type: none"> • Reuse topsoil to rehabilitate disturbed areas. • Minimise the clearance of vegetation to avoid exposure of soil. • The underground storage tanks must be designed and installed in accordance with the SABS Standards (South African Bureau of Standards, SABS 089-3-1999, and Third Edition. Code of practise - The petroleum industry, Part 3: The installation of underground storage tanks, pumps/dispensers and pipework at service station and consumer installations). SANS standards adequately address various potential impacts via the implementation of required engineering measures <p>Traffic congestion:</p> <ul style="list-style-type: none"> • Traffic congestion and limitation of access along the access road.

Basic Assessment Report

<ul style="list-style-type: none"> • The road will need to be maintained /upgraded during the construction period. <p>Social Impact:</p> <ul style="list-style-type: none"> • Crime increase <p>Safety:</p> <ul style="list-style-type: none"> • Safety of construction workers could be compromised during construction activities. • Safety of residence during construction period. <p>Waste:</p> <ul style="list-style-type: none"> • There will be generation and disposal of domestic and hazardous waste. • Also including the generation and disposal of sewage waste from temporal construction toilets. <p>Indirect impacts:</p> <p>Noise:</p> <ul style="list-style-type: none"> • Noise will be generated during construction due to hauling of construction vehicles and excavations which could cause disturbance to communities. <p>Pollution:</p> <ul style="list-style-type: none"> • There could be traffic disruption during construction period. <p>Hazardous Spillage:</p> <ul style="list-style-type: none"> • Possible spillage of hazardous materials onto surfaces during usage and storage of chemicals. <p>Cumulative impacts:</p> <ul style="list-style-type: none"> • Increase level of noise and dust. • Increase sediments run off into local catchments. • Waste materials at site and landfills. 	<ul style="list-style-type: none"> • The road will need to be maintained /upgraded during the construction period. <p>Social Mitigations:</p> <ul style="list-style-type: none"> • Employ guards to ensure safety of goods and workers • The development will result in job creation and provision of employment. <p>Safety:</p> <ul style="list-style-type: none"> • Ensure the appointment of a Safety Officer to continuously monitor the safety conditions during construction. • All construction staff must have the appropriate PPE. • The construction staff handling chemicals or hazardous materials must be trained in the use of the substances and the environmental, health and safety consequences of incidents. • Report and record any environmental, health and safety incidents to the responsible person. • Firearms or any other hunting weapons must be prohibited on site. • Current employees must be educated about the value of wild animals and the importance of their conservation. • Members of the public adjacent to the construction site should be notified of construction activities in order to limit unnecessary disturbance or interference. • Construction activities will be undertaken during daylight hours and not on Sundays, except for emergency purposes. • Consult with local communities regarding the location of construction camps, access and hauling routes and other likely disturbance during and after construction. <p>Waste:</p> <ul style="list-style-type: none"> • Waste disposal bins will have supplied at convenient intervals within the construction site. • General waste will be disposed of to an approved waste disposal site. • Waste will be temporally stored on site for less than 30 days, until removed to be disposed at a registered land fill. • An appropriate number of drums must be kept on site for contaminated soil due to spillages. • Adequate number of self-contained chemical toilets will be provided on site during construction phase.
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Basic Assessment Report

	<ul style="list-style-type: none"> A registered chemical waste company will be used for the removal of waste from the chemical toilets
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Alternative S2 (if any)	Mitigation Measures
<p>Direct impacts:</p> <ul style="list-style-type: none"> Removal vegetation as well as alien invasive plants. Soil erosion as a result of soil disturbance Air pollution due to dust generation and exhaust emissions of heavy vehicles during construction activities. Generation of waste Pollution of surface and groundwater due to spillage of hazardous material (oil and fuels) Generation of noise during construction activities. Employment opportunities and skills development. <p>Indirect impacts:</p> <ul style="list-style-type: none"> Increased Stormwater runoff Health and safety risks to the public due to unauthorised access. <p>Cumulative impacts:</p> <ul style="list-style-type: none"> Increase of waste in municipal landfill site due to disposal of building rubble and waste. 	<ul style="list-style-type: none"> Removal of vegetation must take place only within demarcated area for the development. Soil conservation measures must be implemented, i.e. covering stockpiles and construction of berms etc. All vehicles must be in a good condition, with acceptable smoke emissions. Dust suppression measures must be implemented such as water spraying and use of dust mask. Construction activities must be limited to normal working hours. Comply with traffic rules, ensure that appropriate signage is provided such as flag persons with appropriate reflective vests and appropriate traffic control signs. Waste must be collected regularly and disposed to an approved disposal site. Reuse and recycling must be done where feasible and possible.

No-go alternative (compulsory)	Mitigation Measures
<p>Direct impacts:</p> <ul style="list-style-type: none"> Loss of employment opportunities during construction phase Loss of business opportunities for construction material suppliers and transporters <p>Indirect impacts:</p> <ul style="list-style-type: none"> Loss of employment and business opportunities. <p>Cumulative impacts:</p> <ul style="list-style-type: none"> None 	<p>N/A</p>

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)	Mitigation Measure
<p>Direct impacts:</p> <p>Soils:</p> <ul style="list-style-type: none"> Soil erosion could potentially occur due to construction activities, where ground stripped of vegetation is exposed to rainfall with the resultant washing away of topsoil and/or sub-soils. 	<p>Soil Erosion and pollution:</p> <ul style="list-style-type: none"> Reuse topsoil to rehabilitate disturbed areas. Minimise the clearance of vegetation to avoid exposure of soil. <p>Traffic congestion:</p>

Basic Assessment Report

<ul style="list-style-type: none"> • Cut and fill embankments, if implemented, are also particularly vulnerable to soil erosion, if not subjected to the correct environmental management practices. • The negative impact under these circumstances is considered to have a medium significance (local extent, medium intensity, long term duration and probable). <p>Traffic Congestion:</p> <ul style="list-style-type: none"> • The construction phase is likely to generate additional traffic in terms of construction vehicles and heavy vehicles delivering materials to the site. • The significance of this negative impact is considered to be very low (local extent, low intensity, short-term duration and definite). • The road will need to be maintained /upgraded during the construction period. <p>Social Impact:</p> <ul style="list-style-type: none"> • Crime increase <p>Safety:</p> <ul style="list-style-type: none"> • Safety of construction workers could be compromised during construction activities. • Safety of residents during construction. <p>Waste:</p> <ul style="list-style-type: none"> • There will be generation and disposal of domestic and hazardous waste. • Also including the generation and disposal of sewage waste from temporal construction toilets. <p>Indirect impacts:</p> <p>Noise:</p> <ul style="list-style-type: none"> • Noise will be generated during construction due to hauling of construction vehicles and excavations which could cause disturbance to communities. <p>Pollution:</p> <ul style="list-style-type: none"> • There could be traffic disruption during construction period. <p>Hazardous Spillage:</p> <ul style="list-style-type: none"> • Possible spillage of hazardous materials onto surfaces during usage and storage of chemicals. <p>Cumulative impacts:</p> <ul style="list-style-type: none"> • Increase level of noise and dust. • Increase sediments run off into local catchments. • Waste materials at site and landfills. 	<ul style="list-style-type: none"> • Traffic congestion and limitation of access along the access road. • The road will need to be maintained /upgraded during the construction period. <p>Socio Economic:</p> <ul style="list-style-type: none"> • The development will result in job creation and provision of employment. • The safety of the construction staff could be compromised unless adequate safety measures are implemented. <p>Safety:</p> <ul style="list-style-type: none"> • Ensure the appointment of a Safety Officer to continuously monitor the safety conditions during construction. • All construction staff must have the appropriate PPE. • The construction staff handling chemicals or hazardous materials must be trained in the use of the substances and the environmental, health and safety consequences of incidents. • Report and record any environmental, health and safety incidents to the responsible person. • Firearms or any other hunting weapons must be prohibited on site. • Members of the public adjacent to the construction site should be notified of construction activities in order to limit unnecessary disturbance or interference; • Construction activities will be undertaken during daylight hours and not on Sundays; • Consult with local communities regarding the location of construction camps, access and hauling routes and other likely disturbance during and after construction. <p>Waste:</p> <ul style="list-style-type: none"> • Waste disposal bins will be supplied at convenient intervals within the construction site. • General waste will be disposed of to an approved waste disposal site. • Waste will be temporally stored on site for less than 30 days, until removed to be disposed at a registered land fill. • An appropriate number of drums must be kept on site for contaminated soil due to spillages. • Adequate number of self-contained chemical toilets will be provided on site during construction phase. • A registered chemical waste company will be used for the removal of waste from the chemical toilets.
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Basic Assessment Report

Alternative A2: Construction of a Filling Station and Tourism and Information Centre

Mitigation Measure

Direct impacts:

- Soil erosion could potentially occur due to construction activities, where ground stripped of vegetation is exposed to rainfall with the resultant washing away of topsoil and/or sub-soils.
- The construction phase is likely to generate additional traffic in terms of construction vehicles and heavy vehicles delivering materials to the site.
- The road will need to be maintained /upgraded during the construction period.
- Crime increase
- Safety of construction workers could be compromised during construction activities.
- Increase in generation and disposal of domestic and hazardous waste.

Indirect impacts:

- Noise will be generated during construction due to hauling of construction vehicles and excavations which could cause disturbance to communities.
- Possible spillage of hazardous materials onto surfaces during usage and storage of chemicals.

Cumulative impacts:

- Increase level of noise and dust.
- Increase sediments run off into local catchments.
- Waste materials at site and landfills.

Soil Erosion and pollution:

- Reuse topsoil to rehabilitate disturbed areas.
- Minimise the clearance of vegetation to avoid exposure of soil.

Traffic congestion:

- Traffic congestion and limitation of access along the access road.
- The road will need to be maintained /upgraded during the construction period.

Socio Economic:

- The development will result in job creation and provision of employment.
- The safety of the construction staff could be compromised unless adequate safety measures are implemented.

Safety:

- Ensure the appointment of a Safety Officer to continuously monitor the safety conditions during construction.
- All construction staff must have the appropriate PPE.
- The construction staff handling chemicals or hazardous materials must be trained in the use of the substances and the environmental, health and safety consequences of incidents.
- Report and record any environmental, health and safety incidents to the responsible person.
- Firearms or any other hunting weapons must be prohibited on site.
- Members of the public adjacent to the construction site should be notified of construction activities in order to limit unnecessary disturbance or interference;
- Construction activities will be undertaken during daylight hours and not on Sundays;
- Consult with local communities regarding the location of construction camps, access and hauling routes and other likely disturbance during and after construction.

Waste:

- Waste disposal bins will be supplied at convenient intervals within the construction site.
- General waste will be disposed of to an approved waste disposal site.

Basic Assessment Report

	<ul style="list-style-type: none"> • Waste will be temporarily stored on site for less than 30 days, until removed to be disposed at a registered land fill. • An appropriate number of drums must be kept on site for contaminated soil due to spillages. • Adequate number of self-contained chemical toilets will be provided on site during construction phase. • A registered chemical waste company will be used for the removal of waste from the chemical toilets.
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No-go alternative (compulsory)	Mitigation Measures
<p>Direct impacts:</p> <ul style="list-style-type: none"> • Loss of employment opportunities during construction phase • Loss of business opportunities for construction material suppliers and transporters <p>Indirect impacts:</p> <ul style="list-style-type: none"> • Loss of employment and business opportunities. <p>Cumulative impacts:</p> <ul style="list-style-type: none"> • None 	N/A

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)	Mitigation Measures
<p>Direct impacts:</p> <p>Groundwater contamination:</p> <ul style="list-style-type: none"> • In the absent of correct design standards during the installation of fuel storage tanks, pollution of groundwater might occur in the operating phase. • Contamination of groundwater due to potential leaks from pipe fittings/valves and spillages which may occur from time to time, during the transfer petroleum products to the underground storage tanks, and to a lesser extent, during the filling of motor vehicles <p>Stormwater Impact:</p> <ul style="list-style-type: none"> • Increased Stormwater runoff may arise due to increased coverage of paved surfaces <p>Economic Impact:</p>	<ul style="list-style-type: none"> • The fuel filling station must operate on a conservancy tank system and affluent removed regularly by vacuum tanker to an approved sewage treatment facility. • Stormwater should be collected from the roofs and impervious surfaces and piped or channelled in surface drains to the point of discharge. • The site should be graded to allow rapid surface runoff. • Use of green technologies and efficient usage of resources is recommended.

Basic Assessment Report

<ul style="list-style-type: none"> The proposed development will provide employment opportunities to Ndatshana communities. <p>Soil Erosion:</p> <ul style="list-style-type: none"> Erosion from inadequate vegetation cover. Maintenance activities may result in vegetation clearance. <p>Indirect impacts:</p> <p>Economic Impact:</p> <ul style="list-style-type: none"> The proposed Silonjana Filling Station will provide employment opportunities, skills development and there would be a positive economic impact of medium significance as developers would consider investing in it. <p>Cumulative impacts:</p> <ul style="list-style-type: none"> The existing traffic volumes on the surrounding road network showed that there is generally no major congestion encountered on the road network surrounding the proposed site during existing peak hours. Increase pressure on usage of resources (energy and water). 	
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Alternative S2 (if any):	Mitigation Measure
<p>Direct impacts:</p> <ul style="list-style-type: none"> Re-establishment of alien invasive plants. Increase resource consumption (energy and water). Increase stormwater runoff Soil erosion due to poor rehabilitation. <p>Indirect impacts:</p> <ul style="list-style-type: none"> Increased socio-economic benefits as a result of permanent employment. <p>Cumulative impacts:</p> <ul style="list-style-type: none"> Growth of surrounding infrastructure. 	<ul style="list-style-type: none"> Alien invasive plants monitoring plan must be implemented. Re-vegetation of exposed soil as soon as the removal of alien vegetation completed Use of green technologies and efficient usage of resources is recommended. Keep Stormwater management structures free of litter and debris.

No-go alternative (compulsory)	Mitigation Measures
<p>Direct impacts:</p> <ul style="list-style-type: none"> The site remains unused. Loss of economic benefit. <p>Indirect impacts:</p> <ul style="list-style-type: none"> None <p>Cumulative impacts:</p> <ul style="list-style-type: none"> None 	<p>N/A</p>

Basic Assessment Report

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)	Mitigation Measures
<p>Direct impacts:</p> <ul style="list-style-type: none"> • Traffic congestion • Stormwater increased flows • Light and visual pollution <p>Indirect impacts:</p> <ul style="list-style-type: none"> • Crime near and at the fuel station <p>Cumulative impacts:</p> <ul style="list-style-type: none"> • Increase in business activities 	<p>Soil Erosion and pollution:</p> <ul style="list-style-type: none"> • Reuse topsoil to rehabilitate disturbed areas. • Minimise the clearance of vegetation to avoid exposure of soil. <p>Traffic congestion:</p> <ul style="list-style-type: none"> • Traffic congestion and limitation of access along the access road. • The road will need to be maintained /upgraded during the construction period. <p>Socio Economic:</p> <ul style="list-style-type: none"> • The development will result in job creation and provision of employment. • The safety of the construction staff could be compromised unless adequate safety measures are implemented. <p>Safety:</p> <ul style="list-style-type: none"> • Ensure the appointment of a Safety Officer to continuously monitor the safety conditions during construction. • All construction staff must have the appropriate PPE. • The construction staff handling chemicals or hazardous materials must be trained in the use of the substances and the environmental, health and safety consequences of incidents. • Report and record any environmental, health and safety incidents to the responsible person. • Firearms or any other hunting weapons must be prohibited on site. • Members of the public adjacent to the construction site should be notified of construction activities in order to limit unnecessary disturbance or interference; • Construction activities will be undertaken during daylight hours and not on Sundays; • Consult with local communities regarding the location of construction camps, access and hauling routes and other likely disturbance during and after construction. <p>Waste:</p> <ul style="list-style-type: none"> • Waste disposal bins will be supplied at convenient intervals within the construction site.

Basic Assessment Report

	<ul style="list-style-type: none"> • General waste will be disposed of to an approved waste disposal site. • Waste will be temporarily stored on site for less than 30 days, until removed to be disposed at a registered land fill. • An appropriate number of drums must be kept on site for contaminated soil due to spillages.
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Alternative A2: Construction of Filling Station and Tourism Information Centre

Mitigation Measures

<p>Direct impacts:</p> <ul style="list-style-type: none"> • Soil erosion • Lack of road maintenance that could lead to deterioration in the internal and access roads. • Increase of population growth and traffic congestion. <p>Indirect impacts:</p> <ul style="list-style-type: none"> • Loss of employment opportunities and business opportunities. • Pressure on municipal bulk services (water supply and sewage system). • Insufficient electricity supply. • Increase of visual pollution (Lighting). • Potential increase of crime. <p>Cumulative impacts:</p> <ul style="list-style-type: none"> • Increase waste in municipal landfill site. • Decrease in property value. 	<ul style="list-style-type: none"> • Ensure rehabilitation is done properly. • Minimise the clearance of vegetation to avoid exposure of soil. • Ensure the residential housing plan provides some of the opportunities that the Silonjane Filling Station proposes such as job and small business opportunities. • Ensure road maintenance is done at all times. • Traffic congestion and limitation of access along the access road. • Appropriate disposal of domestic waste. • Ensure adequate Stormwater management. • All measures to prevent fires must be ensured such as fire emergency plan. • Ensure supply of electricity is coping with the demands of development. • Ensure effective measures to reduce the chances of crime.
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No-go alternative (compulsory)

Mitigation Measures

<p>Direct impacts:</p> <ul style="list-style-type: none"> • Loss of business and investment <p>Indirect impacts:</p> <ul style="list-style-type: none"> • Loss of development and services in Ndatshana. <p>Cumulative impacts:</p> <ul style="list-style-type: none"> • Loss of development and services in Ndatshana. 	N/A
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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:

Basic Assessment Report

Alternative S1 (preferred alternative)

Mitigation Measures

Direct impacts:

While decommissioning is not anticipated, should this be required the relevant environmental laws prevailing at that point in time will be adhered to in terms of decommissioning requirements. Decommissioning will take place in consultation with and in receipt of confirmation from the relevant environmental authority.

Indirect impacts:

While decommissioning is not anticipated, should this be required the relevant environmental laws prevailing at that point in time will be adhered to in terms of decommissioning requirements. Decommissioning will take place in consultation with and in receipt of confirmation from the relevant environmental authority.

Cumulative impacts:

While decommissioning is not anticipated, should this be required the relevant environmental laws prevailing at that point in time will be adhered to in terms of decommissioning requirements. Decommissioning will take place in consultation with and in receipt of confirmation from the relevant environmental authority.

As mentioned in the impacts phase decommissioning and/or closure of the petroleum filling station and/or the underground for any reason, the Department of Water Affairs must be consulted for guidance. The following conditions are generally required by the Department of Water Affairs:

Tank Closure

- A soil and groundwater contamination investigation must be conducted to determine the presence, nature and extent of any contamination. This will provide information as to the current status of the site in terms of the level of contamination, which will ultimately influence the level or type of remediation that needs to be undertaken, if any.
- The soil and groundwater must be analysed for Benzene, Toluene, Ethyl benzene and Xylene (BTEX's) and for lead based fuel, if this was previously stored in the tank.
- Prior to the tanks and associated piping being closed all residue product must be carefully removed for recycling or safe disposal. Safe disposal certificates must be obtained and kept on record as proof.
- A solid inert material must be used for filling the underground storage tank.
- Only clean soil must be used for backfilling purposes.

Stormwater & Wastewater Management

- Water used for flushing the pipes and tanks must be disposed of safely if it is not suitable for disposal via the sewer system. The relevant department at the Local Municipality must be contacted with regard to the discharge of water containing waste to the sewer system.
- The water containing waste generated must pass through an oil/water separator prior to discharge to the municipal sewer system.
- It must be ensured that any water containing waste does not contaminate clean stormwater.

Waste Management

- All solid waste generated from the removal of the tanks must be handled according to the precautionary principle. This implies that waste (including soils,

Basic Assessment Report

	<p>metals and other material) should be treated as hazardous unless proven otherwise.</p> <ul style="list-style-type: none"> • All contaminated soil and other material must be disposed of at a permitted landfill site that is authorized to accept such wastes. • Waste must not be allowed to be stockpiled on site for extensive periods but must be disposed of as generated. • Any waste material temporarily stockpiled must be adequately protected from the environment to prevent leaching of potentially harmful contaminants. <p>Spillages</p> <ul style="list-style-type: none"> • Any spillages during the decommissioning of the tanks must be reported to this Department and other relevant authorities. <p>Remediation</p> <ul style="list-style-type: none"> • Clean-up or remediation of any contamination must be done in consultation with this Department. <p>General</p> <ul style="list-style-type: none"> • A proper sampling protocol must be followed. • In terms of Section 19 of the National Water Act, 1998 (Act 36 of 1998) and with regard to contamination and the remediation thereof, the owner of land, a person in control of land or a person who occupies or uses the land on which pollution has occurred, is not absolved from responsibility of any further and/or associated pollution arising from his property. Should there be a risk to downstream users or the environment from this site in the future, the Department would request that further remedial measures be instituted at this site.
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Alternative S2

Direct impacts:

While decommissioning is not anticipated, should this be required the relevant environmental laws prevailing at that point in time will be adhered to in terms of decommissioning requirements. Decommissioning will take place in consultation with and in receipt of confirmation from the relevant environmental authority.

Indirect impacts:

Mitigation Measures

As mentioned in the impacts phase decommissioning and/or closure of the petroleum filling station and/or the underground for any reason, the Department of Water Affairs must be consulted for guidance. The following conditions are generally required by the Department of Water Affairs:

Tank Closure

While decommissioning is not anticipated, should this be required the relevant environmental laws prevailing at that point in time will be adhered to in terms of decommissioning requirements. Decommissioning will take place in consultation with and in receipt of confirmation from the relevant environmental authority.

Cumulative impacts:

While decommissioning is not anticipated, should this be required the relevant environmental laws prevailing at that point in time will be adhered to in terms of decommissioning requirements. Decommissioning will take place in consultation with and in receipt of confirmation from the relevant environmental authority.

- A soil and groundwater contamination investigation must be conducted to determine the presence, nature and extent of any contamination. This will provide information as to the current status of the site in terms of the level of contamination, which will ultimately influence the level or type of remediation that needs to be undertaken, if any.
- The soil and groundwater must be analysed for Benzene, Toluene, Ethyl benzene and Xylene (BTEX's) and for lead based fuel, if this was previously stored in the tank.
- Prior to the tanks and associated piping being closed all residue product must be carefully removed for recycling or safe disposal. Safe disposal certificates must be obtained and kept on record as proof.
- A solid inert material must be used for filling the underground storage tank.
- Only clean soil must be used for backfilling purposes.

Stormwater & Wastewater Management

- Water used for flushing the pipes and tanks must be disposed of safely if it is not suitable for disposal via the sewer system. The relevant department at the Local Municipality must be contacted with regard to the discharge of water containing waste to the sewer system.
- The water containing waste generated must pass through an oil/water separator prior to discharge to the municipal sewer system.
- It must be ensured that any water containing waste does not contaminate clean stormwater.

Waste Management

- All solid waste generated from the removal of the tanks must be handled according to the precautionary principle. This implies that waste (including soils, metals and other material) should be treated as hazardous unless proven otherwise.
- All contaminated soil and other material must be disposed of at a permitted landfill site that is authorized to accept such wastes.
- Waste must not be allowed to be stockpiled on site for extensive periods but must be disposed of as generated.

Basic Assessment Report

	<ul style="list-style-type: none"> Any waste material temporarily stockpiled must be adequately protected from the environment to prevent leaching of potentially harmful contaminants. <p>Spillages</p> <ul style="list-style-type: none"> Any spillages during the decommissioning of the tanks must be reported to this Department and other relevant authorities. <p>Remediation</p> <ul style="list-style-type: none"> Clean-up or remediation of any contamination must be done in consultation with this Department. <p>General</p> <ul style="list-style-type: none"> A proper sampling protocol must be followed. In terms of Section 19 of the National Water Act, 1998 (Act 36 of 1998) and with regard to contamination and the remediation thereof, the owner of land, a person in control of land or a person who occupies or uses the land on which pollution has occurred, is not absolved from responsibility of any further and/or associated pollution arising from his property. Should there be a risk to downstream users or the environment from this site in the future, the Department would request that further remedial measures be instituted at this site.
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No-go alternative (compulsory)	Mitigation Measures
<p>Direct impacts: There will be no decommissioning on this option</p> <p>Indirect impacts: There will be no decommissioning on this option</p> <p>Cumulative impacts: There will be no decommissioning on this option.</p>	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)	Mitigation Measures
<p>Direct impacts: While decommissioning is not anticipated, should this be required the relevant environmental laws prevailing at that point in time will be adhered to in terms of decommissioning requirements. Decommissioning will</p>	As mentioned in the impacts phase decommissioning and/or closure of the petroleum filling station and/or the underground for any reason, the Department of Water Affairs must be consulted for guidance. The following conditions

Basic Assessment Report

take place in consultation with and in receipt of confirmation from the relevant environmental authority.

Indirect impacts:

While decommissioning is not anticipated, should this be required the relevant environmental laws prevailing at that point in time will be adhered to in terms of decommissioning requirements. Decommissioning will take place in consultation with and in receipt of confirmation from the relevant environmental authority.

Cumulative impacts:

While decommissioning is not anticipated, should this be required the relevant environmental laws prevailing at that point in time will be adhered to in terms of decommissioning requirements. Decommissioning will take place in consultation with and in receipt of confirmation from the relevant environmental authority.

are generally required by the Department of Water Affairs:

Tank Closure

- A soil and groundwater contamination investigation must be conducted to determine the presence, nature and extent of any contamination. This will provide information as to the current status of the site in terms of the level of contamination, which will ultimately influence the level or type of remediation that needs to be undertaken, if any.
- The soil and groundwater must be analysed for Benzene, Toluene, Ethyl benzene and Xylene (BTEX's) and for lead based fuel, if this was previously stored in the tank.
- Prior to the tanks and associated piping being closed all residue product must be carefully removed for recycling or safe disposal. Safe disposal certificates must be obtained and kept on record as proof.
- A solid inert material must be used for filling the underground storage tank.
- Only clean soil must be used for backfilling purposes.

Stormwater & Wastewater Management

- Water used for flushing the pipes and tanks must be disposed of safely if it is not suitable for disposal via the sewer system. The relevant department at the Local Municipality must be contacted with regard to the discharge of water containing waste to the sewer system.
- The water containing waste generated must pass through an oil/water separator prior to discharge to the municipal sewer system.
- It must be ensured that any water containing waste does not contaminate clean stormwater.

Waste Management

- All solid waste generated from the removal of the tanks must be handled according to the precautionary principle. This implies that waste (including soils, metals and other material) should be treated as hazardous unless proven otherwise.
- All contaminated soil and other material must be disposed of at a permitted landfill

Basic Assessment Report

	<p>site that is authorized to accept such wastes.</p> <ul style="list-style-type: none"> • Waste must not be allowed to be stockpiled on site for extensive periods but must be disposed of as generated. • Any waste material temporarily stockpiled must be adequately protected from the environment to prevent leaching of potentially harmful contaminants. <p>Spillages</p> <ul style="list-style-type: none"> • Any spillages during the decommissioning of the tanks must be reported to this Department and other relevant authorities. <p>Remediation</p> <ul style="list-style-type: none"> • Clean-up or remediation of any contamination must be done in consultation with this Department. <p>General</p> <ul style="list-style-type: none"> • A proper sampling protocol must be followed. • In terms of Section 19 of the National Water Act, 1998 (Act 36 of 1998) and with regard to contamination and the remediation thereof, the owner of land, a person in control of land or a person who occupies or uses the land on which pollution has occurred, is not absolved from responsibility of any further and/or associated pollution arising from his property. Should there be a risk to downstream users or the environment from this site in the future, the Department would request that further remedial measures be instituted at this site.
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Alternative A2

<p>Direct impacts: While decommissioning is not anticipated, should this be required the relevant environmental laws prevailing at that point in time will be adhered to in terms of decommissioning requirements. Decommissioning will take place in consultation with and in receipt of confirmation from the relevant environmental authority.</p> <p>Indirect impacts: While decommissioning is not anticipated, should this be required the relevant environmental laws prevailing at that point in time will be adhered to in terms of decommissioning requirements. Decommissioning will take place in consultation with and in receipt of confirmation from the relevant environmental authority.</p>	<p>As mentioned in the impacts phase decommissioning and/or closure of the petroleum filling station and/or the underground for any reason, the Department of Water Affairs must be consulted for guidance. The following conditions are generally required by the Department of Water Affairs:</p> <p>Tank Closure</p> <ul style="list-style-type: none"> • A soil and groundwater contamination investigation must be conducted to determine the presence, nature and extent of any contamination. This will provide information as to the current status of the site in terms of the level of
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Cumulative impacts:

While decommissioning is not anticipated, should this be required the relevant environmental laws prevailing at that point in time will be adhered to in terms of decommissioning requirements. Decommissioning will take place in consultation with and in receipt of confirmation from the relevant environmental authority.

contamination, which will ultimately influence the level or type of remediation that needs to be undertaken, if any.

- The soil and groundwater must be analysed for Benzene, Toluene, Ethyl benzene and Xylene (BTEX's) and for lead based fuel, if this was previously stored in the tank.
- Prior to the tanks and associated piping being closed all residue product must be carefully removed for recycling or safe disposal. Safe disposal certificates must be obtained and kept on record as proof.
- A solid inert material must be used for filling the underground storage tank.
- Only clean soil must be used for backfilling purposes.

Stormwater & Wastewater Management

- Water used for flushing the pipes and tanks must be disposed of safely if it is not suitable for disposal via the sewer system. The relevant department at the Local Municipality must be contacted with regard to the discharge of water containing waste to the sewer system.
- The water containing waste generated must pass through an oil/water separator prior to discharge to the municipal sewer system.
- It must be ensured that any water containing waste does not contaminate clean stormwater.

Waste Management

- All solid waste generated from the removal of the tanks must be handled according to the precautionary principle. This implies that waste (including soils, metals and other material) should be treated as hazardous unless proven otherwise.
- All contaminated soil and other material must be disposed of at a permitted landfill site that is authorized to accept such wastes.
- Waste must not be allowed to be stockpiled on site for extensive periods but must be disposed of as generated.
- Any waste material temporarily stockpiled must be adequately protected from the environment to prevent leaching of potentially harmful contaminants.

Spillages

Basic Assessment Report

	<ul style="list-style-type: none"> • Any spillages during the decommissioning of the tanks must be reported to this Department and other relevant authorities. <p>Remediation</p> <ul style="list-style-type: none"> • Clean-up or remediation of any contamination must be done in consultation with this Department. <p>General</p> <ul style="list-style-type: none"> • A proper sampling protocol must be followed. • In terms of Section 19 of the National Water Act, 1998 (Act 36 of 1998) and with regard to contamination and the remediation thereof, the owner of land, a person in control of land or a person who occupies or uses the land on which pollution has occurred, is not absolved from responsibility of any further and/or associated pollution arising from his property. Should there be a risk to downstream users or the environment from this site in the future, the Department would request that further remedial measures be instituted at this site.
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No-go alternative (compulsory): NO DECOMMISSION WILL BE REQUIRED

Mitigation Measures

<p>Direct impacts:</p> <ul style="list-style-type: none"> • None <p>Indirect impacts:</p> <ul style="list-style-type: none"> • None <p>Cumulative impacts:</p> <ul style="list-style-type: none"> • None 	<p>N/A</p>
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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"> • Before the construction phase commence an Environmental Control Officer must be appointed for the full duration of the construction and operational phase. • The EMPr shall be developed and be complied with. • The ECO will be responsible for perform all task assigned to the ECO in the EMPr, keep record of all the activities on site, problems identified and transgressions noted, assist in ensuring 	<ul style="list-style-type: none"> • Before the construction phase commence an Environmental Control Officer must be appointed for the full duration of the construction and operational phase. • The EMPr shall be developed and be complied with. • The ECO will be responsible for perform all task assigned to the ECO in the EMPr, keep record of all the activities on site, problems identified and transgressions noted, assist in ensuring

Basic Assessment Report

<p>environmental implementation of appropriate environmental authorisation and approved EMPr, and Providing guidance/advice that ensures implementation of appropriate environmental management measures and adherence with environmental legislation/regulations.</p> <ul style="list-style-type: none"> • The ECO will be required to conduct monthly environmental audit and submits reports every month end. • The ECO must quarterly monitor surface and ground water quality at points that will be established in consultation with the water affairs. 	<p>environmental implementation of appropriate environmental authorisation and approved EMPr, and Providing guidance/advice that ensures implementation of appropriate environmental management measures and adherence with environmental legislation/regulations.</p> <ul style="list-style-type: none"> • The ECO will be required to conduct monthly environmental audit and submits reports every month end. • The ECO must quarterly monitor surface and ground water quality at points that will be established in consultation with the water affairs.
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Alternative A1 (preferred alternative)	Alternative A2
<ul style="list-style-type: none"> • Before the construction phase commence an Environmental Control Officer must be appointed for the full duration of the construction and operational phase. • The EMPr shall be developed and be complied with. • The ECO will be responsible for perform all task assigned to the ECO in the EMPr, keep record of all the activities on site, problems identified and transgressions noted, assist in ensuring environmental implementation of appropriate environmental authorisation and approved EMPr, and Providing guidance/advice that ensures implementation of appropriate environmental management measures and adherence with environmental legislation/regulations. • The ECO will be required to conduct monthly environmental audit and submits reports every month end. • The ECO must quarterly monitor surface and ground water quality at points that will be established in consultation with the water affairs. 	<ul style="list-style-type: none"> • Before the construction phase commence an Environmental Control Officer must be appointed for the full duration of the construction and operational phase. • The EMPr shall be developed and be complied with. • The ECO will be responsible for perform all task assigned to the ECO in the EMPr, keep record of all the activities on site, problems identified and transgressions noted, assist in ensuring environmental implementation of appropriate environmental authorisation and approved EMPr, and Providing guidance/advice that ensures implementation of appropriate environmental management measures and adherence with environmental legislation/regulations. • The ECO will be required to conduct monthly environmental audit and submits reports every month end. • The ECO must quarterly monitor surface and ground water quality at points that will be established in consultation with the water affairs.

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)

The site is suitable for the Filling Station as it located along the main road R68. Other than the negative impacts mentioned in the assessment, the proposed Silonjane Filling Station will have no long-term impact of high or medium significance towards the environment, if the mitigation measures and management of the impacts are undertaken.

Basic Assessment Report

Most of the impacts that the development might have will occur during the construction phase and limited impacts during operation phase, therefore the proposed mitigation measures for the construction and operation phase will ensure that potential impacts can be mitigated to acceptable levels.

Alternative S2

Mr Nkosi owns the preferred site hence he plans to utilise it and the alternative site has environmental constraints as it is located along the river.

Alternative A1 (preferred alternative): Silonjane Filling Station and Bed & Breakfast

The project offers the following advantages:

- Employment opportunities due to construction and operation of the project
- Improved national GDP and local economy
- Services to the Ndatshana community
- Saving of travel costs to access fuel and workshop and carwash services with increased reliability.
- Sustainability of other associated businesses in Ndatshana
- Diversification of businesses in Ndatshana
- Diversification of rates collection base for the Municipality
- Improvement of social cohesion to the Ndatshana and surrounding areas.
- Attraction of investments into the Municipality and specifically Ndatshana

Alternative A2: Tourism Information Centre

The study was conducted what would likely to benefit the community of Ndatshana and it was discovered that the Tourism Information Centre is not needed considering the financial aspect of the area, hence the filling station and a Bed & Breakfast is more suitable and will be successful on the area.

No-go alternative (compulsory)

There will be no changes to the natural environment should the development not go ahead. There is very little vegetation and environmental value on the property as it has sparsely populated grass. There will be no real value in servicing already disturbed plots which are earmarked for development.

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

- a) An EMPr for site establishment, construction and operational phases must be finalised and approved by DEDTEA prior to the contractor moving onto site.
- b) The Environmental Control Officer (ECO) must be appointed prior to site establishment and construct to prevent contravention of the approved EMPr and Environmental Authorisation.

Basic Assessment Report

- c) 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.
- d) 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.
- e) 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.

Underground Storage Tank design:

- The Underground Storage Tanks must comply with the relevant SANS/SABS Codes of Practice which include: SANS 10400 TT 53 (Section 1-6), SANS 10131, SANS 10108, SANS 11535 and SANS 10089 Parts 2 & 3
- The installation must comply with local authority bylaws.
- The Underground Storage Tanks must be fitted with an overfill protection device.
- The tanks must be designed so as to reduce the risk of soil and groundwater contamination.
- The Underground Storage Tanks must be dipped daily and reconciled against volume to check for losses due to leakage.
- The condition of the tanks, associated piping and the monitoring wells must be inspected on a regular basis.
- The tanks and product lines must be pressure tested prior to commissioning.

CONSTRUCTION PHASE

Noise Pollution:

- Noise disturbance must be kept to a minimum.
- 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:

- The liberation of dust into the surrounding environment must be effectively controlled.
- During dry/windy periods water sprays precautions must be undertaken to the construction 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.
- Measures must be taken to ensure that ground and surface water are not polluted

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.

Basic Assessment Report

- The applicant must have alien invasive control programme that will be used to eliminate infestation of these plants.
- The applicant must have alien invasive control programme that will be used to eliminate the infestation of this plants.

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.
- Spillages occurring at the dispensing (i.e. offloading) area must be contained and cleaned up, must be disposed of safely and in accordance with environmental legislation. No product must be allowed to be discharged into municipal stormwater and/or sewer system.
- A petrol and oil interceptor must be provided.

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:

- An approve refuse area must be provided for the storage of solid waste.
- 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 shall be taken to a hazardous registered landfill site.
- All hazardous waste must be collected by an approved service.

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.

Basic Assessment Report

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