the DEDECT

Department:
Economic Development, Environment, Conservation and Tourism
North West Provincial Government
Republic of South Africa

Agricentre Building
Cnr. Dr. James Moroka &
Stadium Road
Private Bag X2039,
Mmabatho. 2735

DIRECTORATE: ENVIRONMENTAL QUALITY & PROTECTION

Tel: (018) 389 5959/ 5156
Fax: (018) 389 5006
Smukhola@nwpg.gov.za

(For official use only)

File Reference Number:	
Application Number:	
Date Received:	

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2010, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2010 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily 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 typing.
3. Where applicable **tick** the boxes that are applicable in the report.
4. An incomplete report may 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 may result in the rejection of the application as provided for in the regulations.
6. This report must be handed in at offices of the relevant competent authority as determined by each authority.
7. No faxed or e-mailed reports will be accepted.
8. The report must be compiled by an independent environmental assessment practitioner.
9. 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.
10. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?	YES	NO X

If YES, please complete the form entitled "Details of specialist and declaration of interest" for appointment of a specialist for each specialist thus appointed:
Any specialist reports must be contained in Appendix D.

1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail[1]:

A. Project Title:

Proposed establishment of a new Waste Transfer Station in Amalia, North West Province
(Waste License Application for the New Amalia Refuse Transfer Station)

B. Project Description and Location:

Amalia is currently disposing its general waste at the existing Amalia Landfill Site which is located on the corner of Buite Street and Muller Street in Amalia, North West Province. The Amalia landfill site is a General Community Landfill site classified as a G:C:B^- site. This site has been classified as a G:C:B^- site as per the landfill classification system as provided in the *Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste: Waste Management Series*, as compiled by the former Department of Water Affairs & Forestry, 1998. In terms of this document, "G" refers to *General Waste*, "C" refers to *Communal Landfill, and "B^-" refers to No Significant Leachate Produced* (the term leachate is discussed in Section F below). The Amalia landfill site is an unlicensed facility which is not lined, which basically means that waste is disposed of in an uncontrolled manner onto the bare soil. This disposal site therefore poses significant environmental risks and requires closure.

With the closure of the Amalia Landfill site, wastes from the Amalia area need to be disposed of at the existing Schweizer-Reneke landfill site, where sufficient airspace exists to accept these wastes. However, a temporary storage area (Waste Transfer Station) for wastes generated in the Amalia area will be required, from where the wastes could be collected and transported for final disposal at the Schweizer-Reneke landfill site. The proposed Waste Transfer Station will be located on a Portion of the Remaining Extent of Portion 6 of the Farm Nieuwjaarsfontein 73 HO, in Amalia North West Province. This site is located in Buite Street, South of the Railway Line and directly south of the Livestock Auction Grounds.

C. Project Proponent:

The Dr Ruth S Mompati District Municipality is proposing the establishment of the new Waste Transfer Station.

D. Project Environmental Consultant:

Jeffares and Green (Pty) Ltd has been appointed by Dr Ruth S Mompati District Municipality as the independent Environmental Assessment Practitioner to undertake the necessary processes to obtain a Waste License for the proposed new Waste Transfer Station.

[1] Please note that this description should not be a verbatim 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.

E. Details of Proposed Transfer Station:

i. Infrastructure Proposed:

Details regarding the requirements for Transfer Stations as outlined in the General Waste Management Facility Standards Guideline Document – Guideline Schematic Layouts v14 09, March 2009, compiled by the Gauteng Department of Agriculture and Rural Development (GDARD) have been considered as part of this Waste Licence Application process. Layout Plans are attached to Appendix C of this Report. A copy of the layout plan is provided in Figure 1 below.

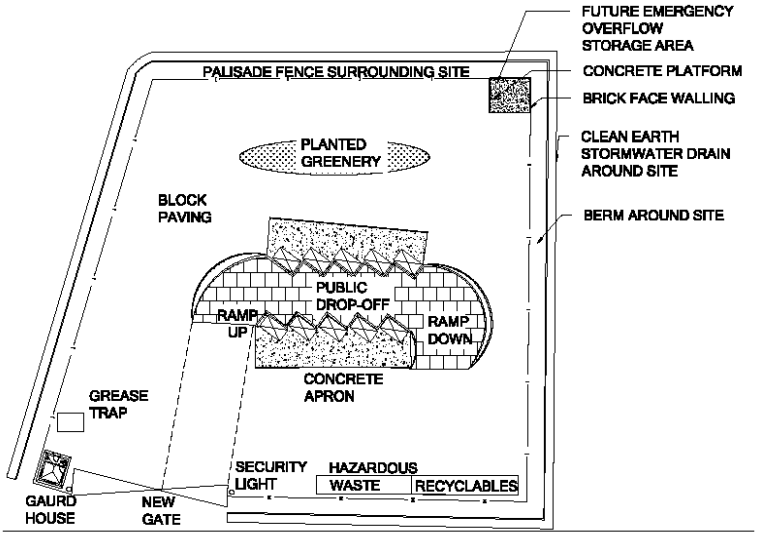

Figure 1: Site Layout Plan

The development footprint of the proposed Waste Transfer Station will be approximately 3755m^2 in extent. An earth berm and cut-off drain will be constructed on the outside along the perimeter fence. This berm/drain combination is required to assist with the management of stormwater during the operational phase of the Transfer Station. It is a requirement in terms of the GDARD General Waste Management Facility Standards Guideline Document that no stormwater may enter a Waste Transfer facility as surface flow. The earth berm/drain will therefore divert stormwater away from the Transfer Station site.

The site will be fenced off with a concrete palisade fence. The local community requested that the site be fenced off with a flat wrap wire fence, as they are of the opinion that any other type of fencing would be stolen. However, the municipality prefers that the site be fenced off with a concrete palisade fence, as visual screening is very important. The concrete palisade fence will not completely visually screen the site, but will provide some form of visual screening. If requested by the local residents, additional visual screening could be provided by the planting of locally indigenous trees or shrubs along the perimeter fence.

Figure 2: Example of a Concrete Palisade Fence

The entire site will be graded at a slope of 3%. A grease trap will be situated at the lowest point of the graded site. All stormwater and water from hosing down the tipping floor will flow to the grease trap. A guard house with an ablution facility will be constructed. The ablution facility will operate on a septic tank system. Water from the grease trap will flow to the septic tank.
The septic tank will be emptied by the municipal sewage service provider for disposal at the Municipal Sewage works.

The site will further include a raised ramp which will be 43m in length, 1.5m in height, and 8m in width. Five (5) $6m^3$ waste skips will be placed on either sides of the raised ramp (10 in total). The wastes skips will be placed on a solid concrete surface. Cars and pedestrians would be able to travel up the ramp to load wastes into the skips. The raised ramp will allow for easy disposal as the top of the ramp and the top of the skip will be at the same level. Waste collection trucks would travel around the ramp to load and off load waste skips. Refer to illustration provided in Figure 3 below.

Figure 3: Example of Raised Ramp

The ramp and concrete slabs where waste skips will be stored will be roofed with a corrugated iron roof. This will prevent rainwater from entering the skips, and will also provide shade. Less water and sunlight exposure will prevent bad odours.

The site will include a demarcated area for recyclable waste collection. This area will consist of a concrete slab where recycling bins will be placed. Bins could for example include amongst others a Ronnie Bin for paper recycling, a Consol bin for glass recycling, and a collect-a-can bin for can recycling. Recycling will be the initiative of residents, and residents whom want to separate their own wastes prior to taking the wastes to the Transfer Station could place their separated wastes into the recycling bins provided on site. All mixed wastes collected from the waste skips will be taken to the Schweizer-Reneke landfill site where these wastes will be sorted and where recycling initiatives will be in place. Waste from the recycling bins will be collected by the relevant recycling companies.

A demarcated hazardous waste storage area will also be provided. This area will consist of a concrete slab, and will contain a used oil tank which will be provided by a service provider such as the Rose Foundation, and a skip for the disposal of household hazardous wastes such as paint, batteries, e-waste and florescent tubes. The hazardous waste skip will also be provided by a service provider such as Enviroserve. The service providers will be responsible for the collection and safe disposal of these wastes.

The site will also include an area for the emergency storage of excess wastes should a problem occur with waste removal services, and the skips become overfilled. This area will consist of a fenced off concrete slab where excess wastes could be stored temporarily in case of an emergency.

The site will include a demarcated area which will be landscaped for aesthetic value. The remainder of the surface area on site will be covered with block paving. All surface areas will therefore be hard impervious surfaces except for the small area which will be landscaped. The landscaped area will be located above gradient of the skip storage area to ensure that water contaminated by waste does not infiltrate into the soil.

Security lighting will also be provided on site.

i. Design and Storage Capacity:

A total of ten (10) 6m^3 skips will be placed on site. A total of 60m^3 of waste could be stored in the skips at one time. Waste skips will be emptied on a weekly basis. Currently the town of Amalia generates a total of 60m^3 of wastes per week. The capacity provided by these waste skips in comparison with the volume of wastes generated on a weekly basis, is more than sufficient. The capacity of the transfer station therefore also considers future population growth and increase in waste volumes as a result. Furthermore recycling bins will be placed on site, and an emergency waste storage area with the capacity to store 50m^3 of waste will be located on site.

ii. Access Control:

The Transfer Station will have an access controlled gate. This gate will be locked at all times outside of the Transfer Station's operating hours. During operating hours the gate will be manned by a security officer.

For traffic safety purposes a double lane access road will be provided where trucks will enter the site in a demarcated lane which will route the trucks around the ramp area, and cars will enter the site in a demarcated lane which will route the cars onto the ramp. These demarcated lanes will continue to lead cars and trucks until these vehicles exits the site.

In order to ensure pedestrian safety, pedestrian crossings could be provided at the access gate, and at the start and end of the ramp.

iii. Operating Hours:

The site's operating hours will be determined by the appointed service provider who will be responsible for the overall management of the site. At this early stage, the following operating hours are proposed.

PERIOD	FROM	UNTIL
Weekdays	8h00	17h00
Saturdays	8h00	15h00
Sunday	8h00	12h00
Public holidays	8h00	12h00

iv. Management of the Site:

The Dr Ruth S Mompati will be responsible for the construction of the proposed waste Transfer Station, and for the purchasing of the necessary waste removal vehicles and skips. The Dr Ruth S Mompati District Municipality will appoint a private service provider who will be responsible for the management of the entire Transfer Station site and all activities associated with it. This is to ensure that the transfer station will be managed at all times and that wastes will be collected regularly and taken to the Schweizer-Reneke landfill site.

v. Waste Collection Frequency:

The waste skips will be emptied on a weekly basis and all wastes will be taken to the Schweizer-Reneke Landfill site for final disposal.

vi. Operational Phase Roles and Responsibilities:

During the sites operational phase, various parties will be responsible for fulfilling certain tasks and duties to ensure that the site is operated sufficiently and effectively. The various parties and their associated roles are provided below:

a) Roles of the Dr Ruth S Mompati District Municipality

The Service Provider will:

- Ensure that the Environmental Management Programme (EMPr) is effectively implemented;
- Liaise on a strategic level with authorities regarding any environmental issues as required;
- Provide the resources (human and financial) necessary to complete the required tasks in accordance with this EMPr;
- Review the EMPr; at least, annually (or when required) to assess its effectiveness and practicality assess whether new environmental procedures are required;
- Ensure that the corrective action and non-conformance issues are addressed with regards to the EMPr;
- Liaise with the public and community regarding any environmental complaints/issues (as required);
- Ensure that the sites are operated in accordance with current permits/licenses, regulations and all appropriate policies; and,
- Maintain proper control of the site and determine what, if any, problems exist, or may be anticipated such as operational issues, regulatory requirements, and stakeholder issues, management of unacceptable waste streams, pollution and emergencies.

b) Roles of the Waste Service Provider (Operational Manager)

The Operational Manager shall:

- Be familiar with the contents of the EMPr;
- Ensure that a copy of the EMPr is kept at an accessible location at the site;
- Be fully conversant with the conditions of permits/licenses and authorisations relevant to the site;
- Provide environmental awareness training for site staff as required;
- Inspect the site on a daily basis for environmental issues;
- Ensure that all site staff are fully conversant with the EMPr;
- Ensure that that all safety checks and procedures have been followed and applied, as well as ensure adherence to the Occupational Health and Safety Act such as, but not limited to: ensuring that working procedures for all equipment and plant are readily available and displayed in an obvious and clear manner, as well as ensuring that staff are trained on safety aspects and are provided with the relevant protective clothing;
- Ensure that enough containers are provided for the storage of recyclables;
- Ensure that all areas and equipment and the facility (buildings and site) are properly cleaned, switched off and stored at the end of the workday;
- Ensure that equipment is serviced, in a timely manner;
- Record keeping such as but not limited to statistics of recyclables handled on the site including type of recyclables, volumes/mass treated, emergency incidents, complaints from the community (and corrective action/management actions), record of unacceptable wastes received at the site (and how it was managed);
- Ensure that the site access is managed and controlled;
- Ensure that a specific person is delegated to act as supervisor/safety co-ordinator during periods of absence;
- Weekly site report compilation;
- Analyse trip sheets on a monthly basis;
- Undertake route planning whenever required;
- Record tonnages on a daily basis;
- Take weekly site photographs;
- Undertake random site visits;
- Compile monthly reports to the Dr Ruth S Mompati District Municipality;
- Undertake proper record keeping;
- Conduct staff meetings and training at-least twice in a year; and
- Ensure good housekeeping and proper sign postage.

c) Roles of Supervisor

- Sign in all employees on a daily basis
- Check whether employees are geared in the correct protective clothing
- Inspect areas on a daily basis to ensure that the site is being kept neat and clean, and well operated. It is recommended that a checklist be compiled including all items which should be inspected. These completed checklists should be filed for record keeping purposes;
- Ensure the removal of skips on a weekly basis
- Ensure that the site remains open during working hours, even if the site is full
- Report the status of skips on a daily basis
- Ensure that the site is kept clean on a daily basis
- Ensure that employees perform their tasks as expected; and
- Report defects to the operations Manager on a daily basis

d) Roles of the Security Officer

- The security officer should report on site by 06h00 and leave not later than 18h00;
- Man the gates at all times during operational hours;
- Take down registration number of vehicles entering the gate;
- Ensure that vehicles entering the gate have the correct type of waste;
- Direct vehicles to the correct skips where the site attendant will be standing;
- Treat all clients with respect and courtesy;
- In the case where the queues are long and there are delays, advise clients of such and ask for their patience;
- Open site to the public even if it is full. At no stage during normal working hours should the site be closed;
- Ensure that no waste pickers collect any wastes from site;
- Co-operate with site attendants at all times and at no stage should the security personnel bully the site attendant; and
- They should at no stage during working hours be under the influence of alcohol.

e) Site Attendants' Responsibilities

- Ensure that cars are directed to the right containers and the waste is offloaded in correct skips;
- Ensure that there is no spillages on the floor when offloading is done;
- Ensure that Site remains clean at all times;
- Ensure that no waste pickers collect any wastes from site;
- Ensure that any defect e.g. Ablution facility on site is reported to the supervisor including the skips that are full; and
- Treat clients with courtesy and respect.

vii. Waste Details

a) Types of Wastes that will be Accepted at the Site:

- Garden wastes;
- Recyclable material e.g. cans, plastic, boxes etc;
- Light builders rubble i.e. stones equivalent to one wheelbarrow in volume or trailer load;
- Household hazardous waste e.g. batteries, paints, etc; and
- Domestic waste.

b) Non Permissible Waste Types

- Animal Carcasses;

- Putrescible waste;
- Hazardous waste, unless its household; and
- Health Care Risk Waste.

viii. Disposal of Non-Permissible Wastes

Provision for the acceptance and transfer of currently non-permissible wastes is under investigation and will be included in the Final Basic Assessment Report. Currently it is proposed to liaise with private hazardous waste service providers to provide some form of receptacle to accommodate non-permissible wastes.

ix. Control of Waste Pickers

Waste Pickers and/or private recyclers will not be allowed to collect any wastes from site. Only the appointed recycling service providers may collect recyclables from their bins provided on site. Although wastes could be a source of income to private recyclers and pickers, this will not be allowed, as the risk of the site becoming uncontrolled is too high. Waste picking initiatives and private recycling initiatives will in place at the Schweizer-Reneke Landfill Site.

F. Legislative Requirements to Obtain a Waste License

In order to obtain a Waste Management License for the construction of the proposed new Waste Transfer Station, an application in terms of the National Environmental Management Waste Act (NEMWA) (the Waste Act) (Act 59 of 2008) needs to be undertaken.

The NEMWA (Act No. 58 of 2008), came into effect on the 1st of July 2009. The Waste Act repealed Section 20 of the Environment Conservation Act, 1989 (Act No. 73 of 1989) (ECA) and introduced new provisions regarding the licensing of waste management activities. In terms of the Waste Act no person may commence, undertake or conduct a waste management activity except in accordance with:

- The requirements or standards determined in terms of the Waste Act for that activity; and
- A waste management license issued in respect of that activity, if a license is required.

A list of waste management activities (Regulation 718) was published on the 3rd of July 2009. This list of activities identifies activities that may not commence, be undertaken or conducted by any person unless a waste management licence is issued in respect of that activity. The list of activities is divided into two Categories.

A person who wished to commence, undertake or conduct, an activity listed under Category A, must conduct a Basic Assessment process, and a person who wished to commence, undertake or conduct an activity listed under Category B, must conduct a Scoping and EIA process. In terms of NEMWA the following activity from R 718 are triggered by the proposed new Transfer Station:

Relevant Notice:	Activity No (S)	Listed Activity Description:
GN 32368 3rd July 2009	Schedule 1 Category A Activity 1 and 18	Storage of Waste: 1) The storage including the temporary storage of general waste at a facility that has the capacity to store in excess of 100m³ of general waste at any one time, excluding the storage of waste in lagoons. Construction, expansion or decommissioning of facilities and associated structures and infrastructure: 18) The construction of facilities for activities listed in Category A of this Schedule (not in isolation to associated activities.

In terms of the activities triggered under Category A, of Regulation 718, a Basic Assessments under NEWMA is required for this project. Therefore, this Basic Assessment Report is compiled in fulfilment of the legislative requirements.

2. 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;

Three site alternatives have been considered:

Alternatives	*Property Description*	*Location Description*	*Reason for Selection*	*Feasible or Not*
Alternative 1	Remaining Extent of Portion 6 of the Farm Nieuwjaarsfontein 73 HO	This site is located on the corner of the R504 and Buite Street in Amalia	The site is located close to the main road leading to Scwheizer-Reneke, therefore allows easy access for vehicles collecting wastes from the site. The site is situated within walking distance from the informal settlement and close to the town of Amalia, so local residents could easily access the site to dispose of their wastes.	The local Amalia Residents objected to this site during the Public Participation Phase due to the following reasons: • The site is located in close proximity to an old age home, and the site will have aesthetic impacts and possible health impacts to these residents; • The town of Amalia is located downwind of the proposed transfer station site, odours will be a nuisance; • Children are often sent to take wastes to the disposal sites. The R504 and Buite Street intersection is a very busy intersection, with lots of traffic incidents. This is not a safe crossing for children.
Alternative 2	Remaining Extent of Portion 6 of the Farm Nieuwjaarsfontein 73 HO	This site is located in the existing sewage evaporation dams, and is located east of the town of Amalia, and to the north of the railway line.	A local resident (Mr Tobie Palm) suggested that this site be investigated as an alternative site.	The possibility of constructing the new waste transfer station at the alternative property proposed was investigated. The sewage evaporation dam is not suitable due to following reasons; • It is even further away from the low cost housing developments, where residents often do not have vehicles, and walking that distance to dispose of their waste is highly unlikely • The evaporation pond was designed as such and should not be converted to another use – this would effectively render the ponds useless for the purpose they were designed and constructed. • The pond site is below ground level which would bring with it the inherent problems related free drainage, ponding and the need to pump stormwater off-site.
Alternative 3 (Preferred Alternative)	Remaining Extent of Portion 6 of the Farm Nieuwjaarsfontein 73 HO	This site is located in Buite Street, South of the Railway Line and directly south of the Livestock Auction	A site meeting was held with Mr Palm, and various other key stakeholders whom were invited	This site is suitable due to the following reasons: • The site is located to the south of the town of Amalia and of the informal settlement. Therefore the

		Grounds.	by Mr Palm, on the 31st of May 2012. During this site meeting, stakeholders suggested an alternative site for the construction of the proposed transfer station	site is located downwind of the town and settlement and no odour issues could occur; • The site is located within walking distance from the informal settlement and town which makes it more convenient for residents to dispose of their wastes; and • Local residents are in support of this site.

Alternative 3 is therefore the only feasible alternative to consider, and therefore the other alternatives have been omitted. This entire Basic Assessment Report and Impact Assessment is based on Alternative 3 as the only feasible and reasonable site alternative.

(b) the type of activity to be undertaken;

With the Closure of the Amalia Landfill site, a temporary Waste Storage Area is required, as wastes cannot be collected on a daily basis from the Amalia households and transported to the Schweizer-Reneke Landfill site. A well designed and well managed Waste Transfer Station is the only suitable option for the temporary storage of wastes in Amalia before these wastes are taken to the Schweizer-Reneke Landfill site for final disposal. No other activity options have therefore been considered.

(c) the design or layout of the activity;

Only one design and layout was chosen for the preferred site Alternative (Alternative 3). The design and layout is based on the following:

- The requirements for Transfer Stations as outlined in the General Waste Management Facility Standards Guideline Document – Guideline Schematic Layouts v14 09, March 2009, compiled by the Gauteng Department of Agriculture and Rural Development (GDARD);
- Requests from the general public to place the waste skips under roof for odour control;
- Fencing requirements as requested by the District Municipality; and
- Best practical design to allow for easy access and drop off for cars and pedestrians, and to allow for easy access, drop off and collection for waste trucks.

(d) the technology to be used in the activity;

Technological alternatives explore the option of achieving the same goal by using a different method or process (DEA&DP, 2010). Wastes will not be sorted on site, and recycling will be the initiative of the general public should they wish to separate their own wastes prior to taking the wastes to Transfer Station Site. As wastes will not be sorted on site, no technological alternatives could be considered.

(e) the operational aspects of the activity; and

The site will be operated by a private service provider who will be appointed by the Dr Ruth S Mompati District Municipality. No alternative operational activities have been considered.

(f) the option of not implementing the activity.

With the Closure of the Amalia Landfill site, a temporary Waste Storage Area is required, as wastes cannot be collected on a daily basis from the Amalia households and transported to the Schweizer-Reneke Landfill site. A well designed and well managed Waste Transfer Station is therefore required. Without developing the Transfer Station there will not be a facility to store wastes. The No-Go Alternative is therefore not an option.

Describe alternatives that are considered in this application. 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.

Paragraphs 3 – 13 below should be completed for each alternative.

3. 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 and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

List alternative sites, if applicable.

Alternative:	**Latitude (S):**		**Longitude (E):**	
Alternative S1[2] (preferred or only site alternative)	-27º	14.71‘	25º	2.227‘
Alternative S2 (if any)	-27º	14.858‘	25º	3.46‘
Alternative S3 (if any)	-27º	15.408 ‘	25º	2.737‘

In the case of linear activities:

Alternative:	**Latitude (S):**		**Longitude (E):**	
Alternative S1 (preferred or only route alternative)				
• Starting point of the activity	º	‘	º	‘

[2] “Alternative S..” refer to site alternatives.

- Middle/Additional point of the activity
- End point of the activity

o	‘	o	‘
o	‘	o	‘

Alternative S2 (if any)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

o	‘	o	‘
o	‘	o	‘
o	‘	o	‘

Alternative S3 (if any)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

o	‘	o	‘
o	‘	o	‘
o	‘	o	‘

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

4. 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)	**3755**m^2
Alternative A2 (if any)	
Alternative A3 (if any)	

or, for linear activities:

Alternative:	**Length of the activity:**
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):

[3] “Alternative A..” refer to activity, process, technology or other alternatives.

	Size of the site/servitude:
Alternative:	
Alternative A1 (preferred activity alternative)	m^2
Alternative A2 (if any)	m^2
Alternative A3 (if any)	m^2

5. SITE ACCESS

Does ready access to the site exist?	*YES* **X**	*NO*
If NO, what is the distance over which a new access road will be built	*m*	

Describe the type of access road planned:

Access will be obtained directly off Buite Street. A driveway will be established to provide access to the site.

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.

6. 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 document.

The site or route plans must indicate the following:

6.1 the scale of the plan which must be at least a scale of 1:500;
6.2 the property boundaries and numbers of all the properties within 50 metres of the site;
6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
6.4 the exact position of each element of the application as well as any other structures on the site;
6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
6.6 all trees and shrubs taller than 1.8 metres;
6.7 walls and fencing including details of the height and construction material;
6.8 servitudes indicating the purpose of the servitude;
6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
- rivers;
- the 1:100 year flood line (where available or where it is required by DWA);

- ridges;
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or invested with alien species);

6.10 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

6.11 the positions from where photographs of the site were taken.

7. 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 form. It must be supplemented with additional photographs of relevant features on the site, if applicable.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

9. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R1.3m	
What is the expected yearly income that will be generated by or as a result of the activity?	R0	
Will the activity contribute to service infrastructure?	YES **X**	NO
Is the activity a public amenity?	YES **X**	NO
How many new employment opportunities will be created in the development phase of the activity?	10	
What is the expected value of the employment opportunities during the development phase?	R 100 000	
What percentage of this will accrue to previously disadvantaged individuals?	100%	
How many permanent new employment opportunities will be created during the operational phase of the activity?	2	
What is the expected current value of the employment opportunities during the first 10 years?	R 1 000 000	
What percentage of this will accrue to previously disadvantaged individuals?	100%	

9(b) Need and desirability of the activity

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

NEED:			
1.	Was the relevant provincial planning department involved in the application?	YES X	NO
2.	Does the proposed land use fall within the relevant provincial planning framework?	YES X	NO
3.	If the answer to questions 1 and / or 2 was NO, please provide further motivation / explanation:		
	N/A		

DESIRABILITY:			
1.	Does the proposed land use / development fit the surrounding area?	YES X	NO
2.	Does the proposed land use / development conform to the relevant structure plans, SDF and planning visions for the area?	YES X	NO
3.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	YES X	NO
4.	If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation:		
	N/A		
5.	Will the proposed land use / development impact on the sense of place?	YES	NO X
6.	Will the proposed land use / development set a precedent?	YES	NO X
7.	Will any person's rights be affected by the proposed land use / development?	YES	NO X
8.	Will the proposed land use / development compromise the "urban edge"?	YES	NO X
9.	If the answer to any of the question 5-8 was YES, please provide further motivation / explanation.		
	N/A		

BENEFITS:			
1.	Will the land use / development have any benefits for society in general?	YES X	NO
2.	Explain:		
	Amalia is currently disposing its general waste at the existing Amalia Landfill Site which is located on the corner of Buite Street and Muller Street in Amalia, North West Province. The Amalia landfill site is a General Community Landfill site classified as a G:C:B$^-$ site. This site has been classified as a G:C:B$^-$ site as per the landfill classification system as provided in the *Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste: Waste Management Series*, as		

	compiled by the former Department of Water Affairs & Forestry, 1998. In terms of this document, "G" refers to *General Waste*, "C" refers to *Communal Landfill, and "B-" refers to No Significant Leachate Produced* (the term leachate is discussed in Section F below). The Amalia landfill site is an unlicensed facility which is not lined, which basically means that waste is disposed of in an uncontrolled manner onto the bare soil. This disposal site therefore poses significant environmental risks and requires closure. With the closure of the Landfill Site a facility is required where wastes could be stored temporarily before the wastes are transported to the Schweizer-Reneke landfill site for final disposal. A well designed and well managed waste transfer station will eliminate all of the impacts associated with the existing landfill site.		
3.	Will the land use / development have any benefits for the local communities where it will be located?	YES X	NO
4.	Explain:		
	Amalia is currently disposing its general waste at the existing Amalia Landfill Site which is located on the corner of Buite Street and Muller Street in Amalia, North West Province. The Amalia landfill site is a General Community Landfill site classified as a G:C:B- site. This site has been classified as a G:C:B- site as per the landfill classification system as provided in the *Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste: Waste Management Series*, as compiled by the former Department of Water Affairs & Forestry, 1998. In terms of this document, "G" refers to *General Waste*, "C" refers to *Communal Landfill, and "B-" refers to No Significant Leachate Produced* (the term leachate is discussed in Section F below). The Amalia landfill site is an unlicensed facility which is not lined, which basically means that waste is disposed of in an uncontrolled manner onto the bare soil. This disposal site therefore poses significant environmental risks and requires closure. With the closure of the Landfill Site a facility is required where wastes could be stored temporarily before the wastes are transported to the Schweizer-Reneke landfill site for final disposal. A well designed and well managed waste transfer station will eliminate all of the impacts associated with the existing landfill site.		

10. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline:	Administering authority:	Date:
National Environmental Management Waste Act (Act 59 of 2008)	National and Provincial	10 March 2009
Waste Management Activities Regulations, July 2003 [Regulation 718, Waste Management Activities as promulgated in terms of Section 19(1) of the National Environmental Management Act (Act 59 of 2008) Waste Management Activities].	National and Provincial	3 July 2009
National Environmental Management Act No. 107 of 1998 as amended.	National & Provincial	27 November 1998
Environmental Impact Assessment Regulations, 18 June 2010	National & Provincial	18 June 2010
National Water Act (Act 36 of 1998)	National	20 August 1998
General Waste Management Facility Standards Guideline Document – Guideline Schematic Layouts v14	GDARD	9 March 2009

11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

11(a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	YES X	NO
If yes, what estimated quantity will be produced per month?	5m^3	

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

All construction related wastes will be disposed of in the existing Amalia landfill site in order to contribute to volumes of wastes required to fill the remaining airspace and close the landfill site.

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

All construction related wastes will be disposed of in the existing Amalia landfill site in order to contribute to volumes of wastes required to fill the remaining airspace and close the landfill site.

Will the activity produce solid waste during its operational phase?	YES	NO X
If yes, what estimated quantity will be produced per month?	N/A m^3	

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

Wastes will not be generated on site. The site will receive wastes which will be temporarily stored on site before it is taken to the Schweizer-Reneke landfill site for final disposal.

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

Wastes will not be generated on site. The site will receive wastes which will be temporarily stored on site before it is taken to the Schweizer-Reneke landfill site for final 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 whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?	YES X	NO

Small volumes of domestic hazardous wastes such as batteries, fluorescent tubes, e-waste, used oils, etc. will be received on site. Separate bins for such wastes will be provided on site by a licensed hazardous waste service provider. Wastes will not be sorted at the proposed Transfer Station site. The local community therefore needs to take their own initiative and place all household hazardous wastes into these bins provided. However, mixed wastes placed in the waste skips will be taken to the Schweizer-Reneke Landfill site where these wastes will be sorted, and separated into the various waste streams. General wastes will be placed in the lined cells for final disposal, recyclable wastes will be collected by various licensed service providers, and hazardous wastes will be collected by relevant licensed service providers.

If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility?	YES	NO X

If yes, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

This project involves an application for a solid waste storage facility. Waste will not be sorted or separated on site, therefore no handling of wastes will take place. Wastes will also not be treated on site.

11(b) Liquid effluent

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

YES	NO
X	

All stormwater and water from hosing down the tipping floor will flow to a grease trap which will be situated at the lowest point on site. Water from the grease trap will flow to the septic tank which will be located at the guard house. The septic tank will be emptied by the municipal sewage service provider for disposal at the Municipal Sewage works.

If yes, what estimated quantity will be produced per month? 1 m^3

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

Yes	NO
	X

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.

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

YES	NO
	X

If yes, provide the particulars of the facility:

Facility name: [redacted]
Contact person:
Postal address:
Postal code:
Telephone: Cell: [redacted]
E-mail: Fax:

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

All waste water from the grease trap will to the septic tank system. No waste water will be reused on site.

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

YES	NO
X	

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

YES	NO
	X

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 emissions in terms of type and concentration:

Small quantities of exhaust emissions will be generated during the construction and operational phase by vehicles transporting the wastes. These emissions are low concentrations and not governed by any legislation. During the construction phase dust will be generated, however, compared to current dust impacts due to poor vegetation cover in the greater study area, and dust generated by vehicles travelling on dirt roads, the dust impact will be insignificant.

11(d) Generation of noise

Will the activity generate noise?

YES	NO
X	

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

YES	NO

	X

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:

Noise will be generated by construction vehicles and equipment during the construction phase, however the noise impact will be short term and will only last during the construction phase. During the operational phase vehicles delivering and collecting wastes from site will generate noise. Furthermore noise will be generated by the tipping and dropping of waste skips. Due to the remote location, and the fact that the proposed site is situated downwind from the town of Amalia, noise impact is expected to be insignificant. Furthermore operations at the site will be restricted to normal business hours.

12. 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
		X			

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: Unknown (litres)

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

YES	NO	Unsure
		X

The town of Amalia is dependent on groundwater, as the municipality does not supply this town with water. Water during the construction and operational phases would therefore be obtained from groundwater. It is not yet known whether there is an existing municipal borehole in the area which could be used, or whether a new borehole would be required. Should a new borehole be required, it should be determined whether water could be abstracted under the General Authorisation or whether a Water Use License Application would be required.

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

13. ENERGY EFFICIENCY

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

Only a small guard house will be constructed on site. Site lighting will be provided by the municipality. Wastes will not be sorted on site; therefore no form of mechanical sorting will be undertaken. Energy efficiency measures where therefore not required as part of the design.

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

N/A. Refer to above.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

1. 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):	0

2. Paragraphs 1 - 6 below must be completed for each alternative.

3. Has a specialist been consulted to assist with the completion of this section?

YES	NO
X	

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed:
All specialist reports must be contained in Appendix D.

Property description/physical address:	The proposed Waste Transfer Station will be located on a Portion of the Remaining Extent of Portion 6 of the Farm Nieuwjaarsfontein 73 HO, in Amalia North West Province. This site is located in Buite Street, South of the Railway Line and directly south of the Livestock Auction Grounds.
	(Farm name, portion etc.) Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application.
	N/A
	In instances where there is more than one town or district involved, please attach a list of towns or districts to this application.
Current land-use zoning:	Not Zoned
	In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to , to this application.

	YES	NO
Is a change of land-use or a consent use application required?		X
Must a building plan be submitted to the local authority?	YES	NO X

Locality map: **An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.) The map must indicate the following:**

- an indication of the project site position as well as the positions of the alternative sites, if any;
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- a legend; and
- locality GPS co-ordinates (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 and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection)

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
X						

Alternative S2 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

Alternative S3 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

NB: Indicate by highlighting/ticking

2.1 Ridgeline	YES	NO
2.2 Plateau	YES	NO
2.3 Side slope of hill/mountain	YES	NO
2.4 Closed valley	YES	NO
2.5 Open valley	YES	NO
2.6 Plain	YES	NO
2.7 Undulating plain / low hills	YES X	NO
2.8 Dune	YES	NO
2.9 Seafront	YES	NO

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

	Alternative S1:		**Alternative S2 (if any):**		**Alternative S3 (if any):**	
Shallow water table (less than 1.5m deep)	YES	NO X	YES	NO	YES	NO
Dolomite, sinkhole or doline areas	YES	NO X	YES	NO	YES	NO
Seasonally wet soils (often close to water bodies)	YES	NO X	YES	NO	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES	NO X	YES	NO	YES	NO

Dispersive soils (soils that dissolve in water)	YES	NO X		YES	NO	YES	NO
Soils with high clay content (clay fraction more than 40%)	YES	NO X		YES	NO	YES	NO
Any other unstable soil or geological feature	YES	NO X		YES	NO	YES	NO
An area sensitive to erosion	YES	NO X		YES	NO	YES	NO

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

4. GROUNDCOVER

Indicate the types of groundcover present on the site:

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] X	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 X

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.

A High Level Ecological Assessment for the study site was undertaken by Synergstics in June 2012. The full Specialist Report is attached to Appendix D.

Vegetation found on site were described in the Report as follows:

The site and surrounds do not appear to have been transformed in recent times and the soils and vegetation appear intact. There is however evidence of relatively heavy use by livestock as well as consumptive harvesting of the woody tree species. The ecological status of both the site and surrounds are adjudged to be in moderate condition. Vegetation in the area is identified as Schweizer-Reneke Bushveld (Mucina and Rutherford, 2006). Amalia is at the western edge of the vegetation type and the vegetation is transitional to Ghaap Plateau Vaalbosveld. The site is dominated by clumps of dense shrub layer, while the limited tree layer consists of young individuals or regrowth on coppiced stems (*Ziziphus mucronata, Rhus lancea, Diospyros lycioides* and *Acacia tortilis*). This is indicative of the heavy consumptive use. The shrub vegetation comprises woody and herbaceous components typical of the natural vegetation (including *Acacia hebeclada, Gymnosporia buxifolia,*

Tarchonanthus camphoratus, Asparagus laricinus and *Asparagus africanus*). In places the shrub layer formed impenetrable clumps with the thorny Acacia hebeclada and Asparagus spp dominating. The grass sward is comprised of indigenous species and is subjected to moderate over-grazing. There was little evidence of any bulbs or forb species (partly related to the onset of winter). Aloes occurred in small, dispersed clumps, largely where the thorny shrubs afforded protection. This is *Aloe grandidentata,* which is a common and widely dispersed species. It is however protected under the Cape Nature and Environmental Conservation Ordinance. The only noted alien or invasive plant was a single prickly pear (*Opuntia spp*). There were no species of conservation concern noted on the site or in the immediate surrounds. Vegetation to the south and west of the site appears in similar condition. The vegetation becomes noticeably more woody toward the water course.

The Biodiversity Status of the site were described in the Report as follows:

According to Mucina and Rutherford the Schweizer-Reneke Bushveld is an endangered vegetation type as it has suffered from heavy transformation through cultivation (42%). The vegetation type is endemic to the North-West Province and there is none of this vegetation type in any statutory conservation area. In the North West Province Critical Biodiversity Assessment (2009) the Schweizer-Reneke Bushveld is assessed as being a vulnerable ecosystem due to the levels of transformation and degradation. The proposed site lies within the boundaries of a Type 2 Critical Biodiversity Area (CBA-T2) mapped in the North West Province Critical Biodiversity Assessment (see Map in Section 7 of the Specialist Report attached to Appendix D). The area is given CBA status as it comprises a patch of vulnerable vegetation type of greater than 5 ha and is an endemic vegetation type of greater than 10 ha. Such patches are vulnerable to transformation and their conservation can only be achieved in the North West Province. From the site assessment there is no obvious evidence of any important or unique biodiversity. The only protected species recorded on site is *Aloe grandidentata*, which is a common and widespread species that is not threatened. Although the site itself has little specific biodiversity value, it is included in the CBA as patch of a vegetation type that requires conservation. The site may also have some ecological relevance as part of a corridor of natural vegetation along the watercourse. Such a corridor is important for the movement of fauna and will increase in importance as development occurs.

The Biodiversity Status of the site were described in the Report as follows:

This high-level ecological scan of the site for the waste transfer station at Amalia has concluded that the site is of low ecological sensitivity at the site scale and of moderate ecological sensitivity at the provincial scale. The proposed waste transfer station and associated activity will transform a < 1 ha portion of this site, removing it from the available area of natural vegetation. The activities will pose little risk to biodiversity or ecological function of the immediate surrounds. The transformation of the site will however increase the need for conservation of the remaining Schweizer-Reneke Bushveld and the remaining corridor along the watercourse. There is no evidence of any need to conduct further ecological studies to inform the proposed development of the site. Permits may however be required from the North West Department of Economic Development, Environment, Conservation and Tourism to destroy or remove the *Aloe grandidentata* specimens. In addition the inclusion of the site in the North West Province Critical Biodiversity Assessment as a CBA could result in activities in Listing Notice 3 of the Environmental Impact Assessment Regulations (GN R 546, June 2010) being triggered by the development. If any activities (possibly 12, 13 or 14) are triggered then a basic assessment process will be required before any such development may take place. It is noted that the proposed waste transfer station is located reasonably close to the small ephemeral watercourse flowing through Amalia. Management of storm water and wind scatter will be important to prevent the dispersion of contaminants to the water course. The site also neighbours the Amalia livestock sale yard and it is essential that operations do not cause disturbance to the livestock or generate litter than could be ingested by the livestock. Screening around the site should make use of locally adapted indigenous tree species such as *Rhus lancea* and *Diospyros lycioides*.

5. LAND USE CHARACTER OF SURROUNDING AREA

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

NB: Indicate by highlighting/ticking

5.1 Natural area	**YES** **X**	NO

5.2 Low density residential	YES X	NO
5.3 Medium density residential	YES	NO
5.4 High density residential	YES X	NO
5.5 Informal residential	YES X	NO
5.6 Retail commercial & warehousing	YES	NO
5.7 Light industrial	YES	NO
5.8 Medium industrial [AN]	YES	NO
5.9 Heavy industrial [AN]	YES	NO
5.10 Power station	YES	NO
5.11 Office/consulting room	YES	NO
5.12 Military or police base/station/compound	YES	NO
5.13 Spoil heap or slimes dam[A]	YES	NO
5.14 Quarry, sand or borrow pit	YES	NO
5.15 Dam or reservoir	YES	NO
5.16 Hospital/medical centre	YES	NO
5.17 School	YES	NO
5.18 Tertiary education facility	YES	NO
5.19 Church	YES	NO
5.20 Old age home	YES	NO
5.21 Sewage treatment plant[A]	YES	NO
5.22 Train station or shunting yard [N]	YES	NO
5.23 Railway line [N]	YES X	NO
5.24 Major road (4 lanes or more) [N]	YES	NO
5.25 Airport [N]	YES	NO
5.26 Harbour	YES	NO
5.27 Sport facilities	YES	NO
5.28 Golf course	YES	NO
5.29 Polo fields	YES	NO
5.30 Filling station [H]	YES	NO
5.31 Landfill or waste treatment site *(Closure of the landfill is proposed)*	YES X	NO
5.32 Plantation	YES	NO
5.33 Agriculture	YES	NO
5.34 River, stream or wetland	YES X	NO
5.35 Nature conservation area	YES	NO
5.36 Mountain, koppie or ridge	YES	NO
5.37 Museum	YES	NO
5.38 Historical building	YES	NO
5.39 Protected Area ***(The proposed site lies within the boundaries of a Type 2 Critical Biodiversity Area (CBA-T2) mapped in the North West Province Critical Biodiversity Assessment)***	YES X	NO
5.40 Graveyard	YES X	NO
5.41 Archaeological site	YES	NO
5.42 Other land uses (describe) ***There is a livestock auction ground located directly***	YES X	NO

adjacent to the proposed site		

If any of the features marked with an "N "are highlighted or ticked, how this impact will / be impacted upon by the proposed activity?

The proposed waste transfer station will not have an impact on the railway line, and the railway line will not have an impact on the proposed transfer station.

If any of the features marked with an "An" are highlighted or ticked, how will this impact / be impacted upon by the proposed activity?

If YES, specify and explain:	N/A
If YES, specify:	N/A

If any of the features marked with an "H" are highlighted or ticked, how will this impact / be impacted upon by the proposed activity.

If YES, specify and explain:	N/A
If YES, specify:	N/A

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	*YES*	*NO* *X*
Archaeological or palaeontological sites, on or close (within 20m) to the site?	*Uncertain*	
If YES, explain:	N/A	
If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.		
Briefly explain the findings of the specialist:	N/A	
Will any building or structure older than 60 years be affected in any way?	*YES*	*NO* *X*
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	*YES*	*NO* *X*

If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.

SECTION C: 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 municipality which has jurisdiction in the area;

(vi) any organ of state having jurisdiction in respect of any aspect of the activity; 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 local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and

(e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to—

(i) illiteracy;

(ii) disability; or

(iii) any other disadvantage.

2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

(a) indicate the details of the application which is subjected to public participation; and

(b) state—

(i) that the application has been submitted to the competent authority in terms of these Regulations, as the case may be;

(ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;

(iii) the nature and location of the activity to which the application relates;

(iv) where further information on the application or activity 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 MEASURES

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. 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 the application is submitted. The comments and responses must be captured in a comments and response report as

prescribed in the EIA regulations and be attached to this application. The comments and response report must be attached under Appendix E.

6. AUTHORITY PARTICIPATION

Please note that a complete list of all organs of state and or any other applicable authority with their contact details must be appended to the basic assessment report or scoping report, whichever is applicable.

Authorities are 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.

List of authorities informed:

During the project planning phases, several discussions and/or meetings were held with the Dr Ruth S Mompati District Municipality and the Mamusa Local Municipality regarding the larger Mamusa Waste Management Project, within which, this project falls. This larger project focuses on the entire municipal waste management in the Mamusa Municipality, and various alternative options, ideas, methodologies have been tabled and discussed. A meeting was also held with the Department of Water Affairs (DWA) (head office) on the 20th of December 2012 during which the project was presented to DWA. The minutes of the meeting held with DWA is attached to Appendix 6 of the Issues and Response Report which is attached to Appendix E of this Basic Assessment Report. The outcome of the meeting is summarised in Table 2 (Issues and Response Register). Copies of the Draft Basic Assessment Report will be submitted to the following Commentary Authorities for a 40 day review period:

Department	Address	Contact Person
Dr Ruth S Mompati District Municipality's Environmental Department	57 McKenzi Street Vryburg 8601 Or P.O Box 21 Vryburg 8601	Mr Volschenk 053 927 0260
Dr Ruth S Mompati District Municipality's Town Planning Department	60 Market Street Vryburg 8601 Or P.O Box 21 Vryburg	Mr Ntsikelelo Kubeka 053 927 1024
Mamusa Local Municipality's Environmental Department	28 Schweizer Street Schweizer-Reneke 2780 Or P.O Box 5 Schweizer-Reneke 2780	Mr September Ramabodu 082 594 9734
Mamusa Local Municipality – Municipal Manager	28 Schweizer Street Schweizer-Reneke	R.R. Gincane Tel: 053 963 1331

	2870	
Department of Water Affairs	Ground Floor Zwamadaka Building 157 Schoeman Street (cnr Schoeman and Bosman Streets) Pretoria Or Private Bag X313 Pretoria 0001	Ms Wilma Moolmam Resource Protection and Waste Tel: 012 336 7557 E-mail: moolmanW@dwa.gov.za
South African Heritage Resources Agency (SAHRA)	Head Office 111 Harrington Street CAPE TOWN 8001 PO Box 4637 Cape Town 8000	Mr Andrew Salomon Tel 021 462 4502/Fax 021 462 4509 Email info@sahra.org.za Web www.sahra.org.za

List of authorities from whom comments have been received:

Only the Mamusa Local Municipality provided comment thus far. The comment provided is summarized below:			
Name / Department and Contact Details	**Date Comment Received**	**Comment Received**	**Response Provided**
R.R. Gincane Municipal Manager Mamusa Local Municipality 28 Schweizer Street Schweizer-Reneke 2870 Tel: 053 963 1331	08/02/2012	Confirmed in writing that the Mamusa Municipality is aware of the proposed project, and that they are happy with the project. Also gave consent the Closure of the existing Amalia landfill Site and the establishment of a new waster transfer station.	Comment noted.

7. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for linear activities, or where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that sub-regulation to the extent and in the manner as may be agreed to by the competent authority.
Proof of any such agreement must be provided, where applicable.

Has any comment been received from stakeholders?

YES	NO
X	

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

Various comments were received with regards to site Alternative 1. Residents were opposed to the construction of the proposed Transfer Station at site Alternative 1, and based on this residents proposed site Alternative 3, which is the preferred Alternative.

Residents also raised concern with regards to poor service delivery and mentioned that they are concerned that the proposed new Transfer Station will not be managed well, and that wastes will not be removed.

All comment made and issues raised have been captured and addressed in the Issues and Response Register which is attached to Appendix E of this Basic Assessment Report.

SECTION D: IMPACT ASSESSMENT

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

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

Various comments were received with regards to site Alternative 1. Residents were opposed to the construction of the proposed Transfer Station at site Alternative 1, and based on this residents proposed site Alternative 3, which is the preferred Alternative.

Residents also raised concern with regards to poor service delivery and mentioned that they are concerned that the proposed new Transfer Station will not be managed well, and that wastes will not be removed.

All comment made and issues raised have been captured and addressed in the Issues and Response Register which is attached to Appendix E of this Basic Assessment Report.

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 to this report as Annexure E):

Site Alternative 1 was omitted, and site Alternative 3 is now the preferred site Alternative. Furthermore, the proposed new transfer station will be managed and operated by a private service provider, and will not be managed or operated by the Local Municipality of the District Municipality. Refer to the complete Issues and Response Register which is attached to Appendix E.

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

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed.

An Impact Assessment in line with the requirement of the Environmental Impact Assessment Regulations, 2010 has been

undertaken and is provided below.

Impacts on all elements of the receiving environment have been considered. Only significant impacts identified have been rated in order to determine the Impact Risk.

The Impact Assessment was undertaken by using the methodology provided in the Table below.

Impact Assessment Methodology

The Environmental Impact Assessment Regulations, 2010, promulgated in terms of Section 24(5) of the National Environmental Management Act (Act 107 of 1998) prescribes requirements to be adhered to when undertaking impact assessments. Requirements for undertaking impact assessments for Basic Assessments and full Environmental Impact Assessments are outlined in the following sections of the EIA Regulations:

- Regulation 543, Section 22, 2(i) – Basic Assessment Impact Assessment Requirements: and
- Regulation 543, Section 32, 2(l) – Environmental Impact Assessment Requirements

In terms of these Regulations, the following should be considered when undertaking an impact assessment:

- A description and assessment of the significance of any environmental impacts, including –
  a. Cumulative impacts, that may occur as a result of the undertaking of the activity during project life cycle;
  b. Nature of the impact;
  c. Extent and Duration of Impact;
  d. The Probability of Impact Occurring;
  e. The degree to which the impact can be reversed;
  f. The degree to which the impact may cause irreplaceable loss of resources; and
  g. The degree to which the impact can be mitigated.

In terms of the above legislated requirements a standard impact assessment methodology was compiled. In order to compile the impact assessment methodology a review of existing impact assessment methodologies utilised by consultants in the field was undertaken. Furthermore, the following document as compiled by the former Department of Environmental Affairs and Tourism (DEAT) was utilised during the compilation for the impact assessment methodology:

- *DEAT (2004) Cumulative Effects Assessment, Integrated Environmental Management, Information Series 7, Department Environmental Affairs and Tourism (DEAT), Pretoria*.

A description of the method for assessing the above criteria as well as the method for determining impact risks are provided in Sections A to I below.

A. Cumulative Impacts

Cumulative impacts can occur over different temporal and spatial scales by interacting, combining and compounding so that the overall effect often exceeds the simple sum of previous effects. The spatial scale can be local, regional or global, whilst the frequency or temporal scale includes past, present and future impacts on a specific environment or region.

Cumulative effects can simply be defined as the total impact that a series of developments, either present, past or future, will have on the environment within a specific region over a particular period of time.

Potential cumulative impacts on all elements of the receiving environment are addressed for all project phases (pre-construction, construction, operational and decommissioning), before and after implementation of mitigation measures.

B. Significance/Magnitude/Nature of Impacts

The significance or magnitude of an impact refers to the importance of an impact. When rating the extent of an impact, it is important to also rate the significance of an impact in order to determine the actual importance of an impact. For example, the size of an area affected by atmospheric pollution may be extremely large, but the significance of this effect is dependent on the concentration or level of pollution. If the concentration is great, the significance of the impact would be High or Very High, but if it is dilute it would be Very Low or Low.

The significance of impacts has been grouped into five classes, as outlined in the Table below

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

C. Extent of Impacts

The extent or spatial scale of an impact refers to whether an impact will occur at a local, regional, or global scale. The extent of impacts has been grouped into five classes, as outlined in the Table below.

RATING		DESCRIPTION
5	Global/National	The impact could/will occur on a national or global scale.
4	Regional/Provincial	The impact could/will occur at a Regional/Provincial Level
3	Local	The impact will affect an area up to 5 km from the proposed site.
2	Study Area	The impact will affect an area not exceeding the Boundary of the study site

1	Isolated Sites / proposed site	The impact will affect an area no bigger than the development footprint.

D. Duration of Impacts and Degree to which impacts can be reversed

The duration or temporal scale of an impact refers to actual impact timeframe, i.e. how long will impacts to the environment last. The reversibility of impacts is directly linked to the duration of impacts. For e.g. permanent impacts are irreversible impacts, whereas, incidental impacts are immediately reversible. The duration and reversibility of impacts has been grouped into five classes, as outlined in the Table below.

RATING		DESCRIPTION	REVERSIBILITY
1	Incidental	The impact will be limited to isolated incidences that are expected to occur very sporadically.	Immediately reversible
2	Short-term	The environmental impact identified will operate for the duration of the construction phase or a period of less than 5 years, whichever is the greater.	Quickly reversible
3	Medium term	The environmental impact identified will operate for the duration of life of the project.	Reversible over time
4	Long term	The environmental impact identified will operate beyond the life of the project.	Reversible over the long term
5	Permanent	The environmental impact will be permanent.	Irreversible, impact is permanent

E. Probability of Impact Occurring

The probability of an impact refers to the likelihood of an impact occurring. The probability of impacts has been grouped into five classes, as outlined in the Table below.

RATING	DESCRIPTION
1	Practically impossible that impact will occur
2	Unlikely that impact will occur
3	Impact could occur
4	Very Likely that impact will occur
5	Impact will occur or has already occurred

F. Degree to which the impact may cause irreplaceable loss of resources (Intensity or Severity of an Impact)

The degrees to which an impact may cause irreplaceable loss of resources are determined based on the outcome of the impact risk assessment. High risk impacts in sensitive areas are more likely to result in irreplaceable loss of resources compared to low risk impacts.

RATING	DESCRIPTION
High	Disturbance or pristine areas that have important conservation value. Destruction of rare or endangered species.
Medium	Disturbance of areas that have potential conservation value or rare of use as resources. Complete change in species occurrence or variety.
Low	Disturbance of degraded areas, which have little conservation value. Minor change is species occurrence or variety.

G. The degree to which the impact can be mitigated

The degree to which an impact can be mitigated are determined by comparing the impact risk class prior to implementation of mitigation measures to the impact risk class after implementation of mitigation measures. If for e.g. an impact risk class can be reduced from a high to very low, then it is likely that there is a high potential that an impact can be mitigated.

RATING	DESCRIPTION
High	High Potential to mitigate negative impacts to the level of insignificant effects.
Medium	Potential to mitigate negative impacts. However, the implementation of mitigation measures may still not prevent some negative effects.
Low	Little or no mechanism to mitigate negative impacts.

H. Degree of Certainty

As it is not possible to be 100% certain of all facts, a standard "degree of certainty" has been incorporated into this Impact Assessment Methodology to indicate the degree of the EAP's certainty regarding impact ratings.

As with all studies it is not possible to be 100% certain of all facts, and for this reason a standard "degree of certainty" scale will be used as outlined in the Table below. When very detailed specialist studies are available or have been undertaken as part of a project, impacts can be more accurately determined.

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

I. Quantitative Description of Impacts

In order to describe impacts in a quantitative manner in addition to the qualitative description given above, a rating scale of between 1 and 5 have been used for each of the assessment criteria. Thus the total value of the impact is described as the function of significance, spatial and duration scale as described below:

$$\text{Impact Risk} = \frac{(\text{Significance} + \text{Spatial} + \text{Duration})}{3} \times \frac{\text{Probability}}{5}$$

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

Impact	Significance	Spatial Scale	Duration Scale	Probability	Risk Rating
Impact to air quality - For e.g. construction vehicles travelling on areas where vegetation has been cleared could result in dust impact.	Low	Local	Medium-Term	Could Happen	1.6
	2	3	3	3	

Note: The significance, spatial and temporal scales are added to give a total of 8, that is divided by 3 to give a criteria rating of 2,67. The probability (3) is divided by 5 to give a probability rating of 0,6. The criteria rating of 2,67 is then multiplied by the probability rating (0,6) to give the final rating of 1,6.

The impact risk is classified according to 5 classes as described in the table below.

Impact Risk Classes:

Rating	Impact Class	Description
0.1-1.0	1	Very Low
1.1-2.0	2	Low

2.1-3.0	3	Moderate
3.1-4.0	4	High
4.1-5.0	5	Very High

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

2.1 Pre-Construction and Construction Phase

2.1.1 Geology

Decommissioning and Closure	Impact Description	Proposed Mitigation Measures
Direct Impact	During the construction phase excavation will be made for the installation of the grease trap, and septic tank. Excavations could impact in underlying geology, depending on soil depth in the area. However impact will be minimal. Foundations for Guard House construction could also impact in underlying geology depending on the soil depth. However, this impact will be minimal.	None required.
Indirect Impact	None Expected	None Required
Cumulative Impact	None Expected	None Required

2.1.2 Topography

Decommissioning and Closure	Impact Description	Proposed Mitigation Measures
Direct Impact	The site earmarked for develop is flat. During the construction phase the site will be graded to have a 3% slope. The site will be sloped to drain in a to a single sump or grease trap. An earth berm and cut-off drain will be constructed along the perimeter of the site to prevent stormwater from adjacent areas to enter the site. The grading of the site and the construction of the earth berm will alter topography and will alter surface water flow patterns. However, the impact will be insignificant.	None required.
Indirect Impact	None Expected	None Required
Cumulative Impact	None Expected	None Required

2.1.3 Soils and Land Capability

Decommissioning and Closure	Impact Description	Proposed Mitigation Measures
Direct Impact	According to the Environmental Potential Atlas Data (ENPAT), 2001, for the North West Province, soils found on site and within the greater study area is of poor suitability for agriculture. Soils will be exposed during the construction phase, as vegetation will be cleared for construction purposes. The entire site will be developed with a hard footprint, therefore soils will be compacted, and covered with a hard surface. However, impact is very low and insignificant as soils are of poor agricultural potential. Accidental leaks and spillages of hydrocarbons from construction vehicles and machinery could occur.	• The Contractor will ensure that there is a supply of absorbent material (e.g. sawdust) readily available to absorb, breakdown and where possible encapsulate minor hydrocarbon spillage. • All construction vehicles and machinery should be kept in good working order to avoid fuel or oil leaks; • Vehicles and machinery displaying signs of leakage should be removed from site and necessary repairs should be undertaken off-site at an appropriate workshop area.
Indirect Impact	None Expected	None Required
Cumulative Impact	None Expected	None Required

Impact Ratings Before Mitigation																	
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Intensity / Severity	Reversibility	
Soils and Land Capability	**Direct Impact**	LOW	2	Isolated Sites / proposed site	1	Incidental	1	Very Likely	4	Probable	1.07	**Very Low**	**Low**	Immediately reversible	1

Impact Ratings After Mitigation													
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Degree of Mitigation
Soils and Land Capability	**Direct Impact**	LOW	2	Isolated Sites / proposed site	1	Incidental	1	Could occur	3	Possible	0.80	**Very Low**	**High**

2.1.4 Land Use

Decommissioning and Closure	Impact Description	Proposed Mitigation Measures
Direct Impact	The site earmarked for construction is currently vacant. Heavy use by livestock is evident on site. The site is Municipal Land, and is not being used for any form of land use. There is a livestock auction yard located to the north of the site earmarked for development, and a shop and house located a few hundred meters towards the south east. Construction activities may have a visual, noise and dust impact on these adjacent land uses. However, the livestock auction yard is only used once a month.	Mitigation measures with regards to noise, air quality and visual impacts are addressed below in separate sections.
Indirect Impact	None Expected	None Required
Cumulative Impact	None Expected	None Required

All impacts identified in this section have been rated under noise, visual, and air quality impacts. Refer to these ratings in the relevant sections below.

2.1.5 Fauna

Operational Phase	Impact Description	Proposed Mitigation Measures
Direct Impact	During the construction phase vegetation on site will be cleared. The proposed transfer station site will have a hard impacted surface, with only a small landscaped garden area. Therefore, all natural vegetation and habitat will be destroyed over the 3755m^3 footprint of the proposed transfer station site. Vegetation outside of the demarcated construction footprint could be disturbed by construction vehicles and equipment. Mammals, reptiles and birds could be killed as a result of construction activities. However, terms of the High Level Ecological Assessment which was	• All construction areas should be demarcated prior to construction to ensure that the footprint of the impacts are limited (including areas where vehicles may traverse); • No animal, reptile or bird of any sort found on site may be killed. This specifically includes snakes or other animals considered potentially dangerous discovered on site. If such an animal is discovered on site an appropriately skilled person should be summoned to remove the animal from the site. Consideration should be given to selection and nomination of such a person prior to site establishment. If no-one is available, training should be provided to at least two site staff members.

	undertaken for this project, no mammalian or reptilian species were observed on site during the day of the site visit. There were also no signs of active burrows, and a few common bird species were observed. The site could provide habitat for local adapted faunal species. The site is unlikely to host any suitable habitat for species of concern.	• No construction equipment, vehicles or unauthorised personnel will be allowed onto areas that have been rehabilitated.
Indirect Impact	Poaching of livestock on farm and adjacent properties could occur. Livestock theft could also occur.	• No animals should be intentionally killed or destroyed and poaching and hunting should not be permitted on the site. Construction workers should be received Environmental Awareness Training prior to commencement of construction activities. The contractor should implement monitoring and control measures where possible.
Cumulative Impact	None Expected	None Required

Impact Ratings Before Mitigation															
		Significance		**Extent**		**Duration**		**Probability**		**Degree of Certainty**	**Impact Risk**		**Intensity / Severity**	**Reversibility**	
Fauna	**Direct Impact**	LOW	2	Study Area	2	Incidental	1	Unlikely	2	Definite	0.67	**Very Low**	**Low**	Immediately reversible	1
	Indirect Impact	MODERATE	3	Local	3	Short-term	2	Could occur	3	Possible	1.60	**Low**	**Low**	Quickly reversible	2

Impact Ratings After Mitigation													
		Significance		**Extent**		**Duration**		**Probability**		**Degree of Certainty**	**Impact Risk**		**Degree of Mitigation**
Fauna	**Direct Impact**	VERY LOW	1	Isolated Sites / proposed site	1	Incidental	1	Could occur	3	Probable	0.60	**Very Low**	**High**
	Indirect Impact	LOW	2	Local	3	Incidental	1	Could occur	3	Possible	1.20	**Low**	**High**

2.1.6 Flora

Operational Phase	Impact Description	Proposed Mitigation Measures
Direct Impact	During the construction phase vegetation on site will be cleared. The proposed transfer station site will have a hard impacted surface, with only a small landscaped garden area. Therefore, all natural vegetation and habitat will be destroyed over the 3755m^3 footprint of the proposed transfer station site. Clearing of vegetation during the construction phase could destroy suitable habitat for sensitive floral species. Compaction of soil leads to decrease in soil fertility which could impact on vegetation re-establishment. Vegetation outside of the demarcated construction footprint could be disturbed by construction vehicles and equipment. However, in terms of the High Level Ecological Assessment which was undertaken for this project, no species of concern have been observed on site. There is evidence of heavy use by livestock as well as consumptive harvesting of woody tree species. The ecological status of both the site and surrounds appear to be in a moderate condition.	• All construction works and movement of construction vehicles and equipment should be restricted to existing roads and the construction footprint; • Vegetation clearance should only be undertaken where necessary for construction purposes. No vegetation to be cleared outside of construction footprint; • Damage to vegetation by construction vehicles, machinery or equipment should be avoided as far as possible • Where possible cutting down of trees should be avoided • No trees may be removed from the site prior to establishing whether the trees are protected in terms of the Notice of the List of Protected Tree Species under the National Forests Act, or whether Licenses or Permits are required for the removal of such species. Removal of trees should be avoided as far as possible. All trees in the way of construction should be identified by a suitably qualified specialist, and necessary authorisations for the removal of such trees must be obtained from the relevant regulating authority as specified by the Department of Agriculture, Forestry and Fisheries.
Indirect Impact	None Expected	None Required
Cumulative Impact	None Expected	None Required

Impact Ratings Before Mitigation																	
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Intensity / Severity	Reversibility	
Flora	Direct Impact	LOW	2	Study Area	2	Permanent	5	Will / Has occurred	5	Probable	3.00	Moderate	Low	Irreversible, impact is permanent	5

Impact Ratings After Mitigation													
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Degree of Mitigation
Flora	Direct Impact	LOW	2	Study Area	2	Long term	4	Could occur	3	Possible	1.60	Low	Medium

2.1.7 Surface Water and Ground Water

Operational Phase	Impact Description	Proposed Mitigation Measures
Direct Impact	Accidental hydrocarbon spillages from construction vehicles on site, could lead to contamination of surface water. Contaminated surface water could infiltrate and lead to contamination of ground water. Contaminated surface water could flow into the nearby stream would negatively impact on the stream. Water contamination could have a negative impact on aquatic fauna and flora.	• The Contractor will ensure that there is a supply of absorbent material (e.g. sawdust) readily available to absorb, breakdown and where possible encapsulate minor hydrocarbon spillage; • All construction vehicles and machinery should be kept in good working order to avoid fuel or oil leaks; • Vehicles and machinery displaying signs of leakage should be removed from site and necessary repairs should be undertaken off-site at an appropriate workshop area. • Stockpiles should not be placed in close proximity to stormwater culverts or channels to avoid soils from entering stormwater which could lead to sedimentation of nearby waterbodies; and • Rehabilitation of disturbed areas to be undertaken as soon as possible to avoid soil erosion.
Indirect Impact	The town of Amalia is dependent on groundwater. Contamination of Groundwater due to accidental hydrocarbon leaks and spillages could have a negative impact on downstream water users.	As above.

Operational Phase	Impact Description	Proposed Mitigation Measures
	Contaminants and sediments could be carried downstream causing water quality impacts downstream of the construction site. Water contamination could have a negative impact on downstream aquatic fauna and flora.	
Cumulative Impact	None expected	None required

		Impact Ratings Before Mitigation													
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Intensity / Severity	Reversibility	
Surface and Groundwater	**Direct Impact**	MODERATE	3	Local	3	Short-term	2	Could occur	3	Possible	1.60	**Low**	**Medium**	Quickly reversible	2
	Indirect Impact	HIGH	4	Local	3	Short-term	2	Could occur	3	Possible	1.80	**Low**	**Medium**	Quickly reversible	2

		Impact Ratings After Mitigation											
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Degree of Mitigation
Surface and Ground water	**Direct Impact**	MODERATE	3	Local	3	Incidental	1	Could occur	3	Possible	1.40	**Low**	**Medium**
	Indirect Impact	MODERATE	3	Local	3	Incidental	1	Unlikely	2	Possible	0.93	**Very Low**	**High**

2.1.8 Air Quality

Operational Phase	Impact Description	Proposed Mitigation Measures
Direct Impact	Removal of vegetation for the construction purposes will leave soil bare and could lead to dust pollution under windy conditions. Emissions from heavy vehicles transporting wastes, as well as emissions from construction vehicles and equipment will impact on air quality. However, the will be located within an existing town where with existing vehicle traffic.	• Dust control measures to be implemented during the construction phase. Use of water to suppress dust should be considered carefully, as there is a risk of surface water contamination on site. • All heavy vehicles to be kept in good working order and serviced regularly. • Vehicle speed on dirt roads to be strictly controlled to 40km/h.

Operational Phase	Impact Description	Proposed Mitigation Measures
	Construction vehicles will travel along a 1.5km dirt road in order to access the site. Vehicles travelling on the dirt road will cause dust pollution.	
Indirect Impact	None expected.	N/A
Cumulative Impact	None expected.	N/A

Impact Ratings Before Mitigation															
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Intensity / Severity	Reversibility	
Air Quality	**Direct Impact**	LOW	2	Study Area	2	Short-term	2	Very Likely	4	Possible	1.60	**Low**	Low	Quickly reversible	2

Impact Ratings After Mitigation													
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Degree of Mitigation
Air Quality	**Direct Impact**	LOW	2	Study Area	2	Incidental	1	Could occur	3	Possible	1.00	**Very Low**	High

2.1.9 Noise

Operational Phase	Impact Description	Proposed Mitigation Measures
Direct Impact	During the construction phase, the operation of machinery and equipment, as well as the construction vehicle traffic will create a noise impact. However, the site proposed for transfer station construction has a very remote location, and noise impact is not expected to be significant.	• All equipment should be kept in good working order; • Equipment should be operated within its specifications and capacity and should not be overloaded; • All machinery/plant should be serviced and lubricated regularly to ensure a good working order; • The provisions of SABS 1200A will apply to all areas within audible distance of residents; • No amplified music will be allowed on the site. The use of radios, tape recorders, compact disc players, television sets etc. will not be permitted unless at a level that does not serve as an intrusion to adjacent land-owners; • Construction activities generating output levels of 85 dB or more will

		be confined to the hours 08h00 to 17h00 Mondays to Fridays; • The Contractor will take preventative measures (e.g. screening, muffling, timing, pre-notification of affected parties) to minimise complaints regarding noise and vibration nuisances from sources such as power tools.
Indirect Impact	None expected	N/A
Cumulative Impact	None expected	N/A

Impact Ratings Before Mitigation																
		Significance		**Extent**		**Duration**		**Probability**		**Degree of Certainty**	**Impact Risk**		**Intensity / Severity**	**Reversibility**		
Noise	**Direct Impact**	MODERATE	3	Local	3	Short-term	2	Could occur	3	Probable	1.60	**Low**	**Low**	Quickly reversible	2	

Impact Ratings After Mitigation													
		Significance		**Extent**		**Duration**		**Probability**		**Degree of Certainty**	**Impact Risk**		**Degree of Mitigation**
Noise	**Direct Impact**	LOW	2	Local	3	Incidental	1	Could occur	3	Possible	1.20	**Low**	Medium

2.1.10 Visual

Operational Phase	**Impact Description**	**Proposed Mitigation Measures**
Direct Impact	The removal of vegetation, construction equipment, stockpiles and activities undertaken during the construction phase may have a negative visual impact on the local community and adjacent land uses. However, the site has a very remote location, and visual impact is not expected to be significant.	• Advertising and lighting will be in accordance with the South African National Roads Agency requirements and will not constitute an eyesore / hazard to users of the road. • Lighting will be sufficient to ensure security but will not constitute 'light pollution' to the surrounding areas. • The site will be shielded from the adjacent landowners to minimise the visual impact where this is feasibly possible, and where this is required; and • Site structures, albeit temporary, must be fitted with appropriate

		cladding and colouring to ensure reduced reflection and visual pollution.
Indirect Impact	None expected	N/A
Cumulative Impact	None expected	N/A

Impact Ratings Before Mitigation															
		Significance		**Extent**		**Duration**		**Probability**		**Degree of Certainty**	**Impact Risk**		**Intensity / Severity**	**Reversibility**	
Visual	**Direct Impact**	MODERATE	3	Local	3	Short-term	2	Could occur	3	Probable	1.60	**Low**	Low	Quickly reversible	2

Impact Ratings After Mitigation													
		Significance		**Extent**		**Duration**		**Probability**		**Degree of Certainty**	**Impact Risk**		**Degree of Mitigation**
Visual	**Direct Impact**	LOW	2	Local	3	Short-term	2	Could occur	3	Probable	1.40	**Low**	Medium

2.1.11 Traffic

Operational Phase	**Impact Description**	**Proposed Mitigation Measures**
Direct Impact	During the construction phase, construction vehicles will travel to and from the site delivering construction materials. This will have an impact on traffic in the area. Although very low volumes of traffic occur in the area. Heavy vehicle traffic could be a safety risk to pedestrians and children.	• Ensure that vehicle operators are suitably licensed, have had appropriate environmental and safety induction, are aware of specific site procedures, and are well rested and cognisant when operating heavy or unsafe vehicles / machinery.
Indirect Impact	None expected	N/A
Cumulative Impact	None expected	N/A

Impact Ratings Before Mitigation																	
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Intensity / Severity	Reversibility	
Traffic	**Direct Impact**	MODERATE	3	Local	3	Short-term	2	Could occur	3	Probable	1.60	**Low**	Low	Quickly reversible	2

Impact Ratings After Mitigation													
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Degree of Mitigation
Traffic	**Direct Impact**	LOW	2	Local	3	Short-term	2	Could occur	3	Probable	1.40	**Low**	Medium

2.1.12 Socio-Economic

Operational Phase	Impact Description	Proposed Mitigation Measures
Direct Impact	**Positive Impact:** Temporary job opportunities for local residents could be created during the construction phase.	N/A
Indirect Impact	None Expected	N/A
Cumulative Impact	None expected	N/A

2.2 Operational Phase

2.2.1 Soils and Land Capability

Decommissioning and Closure	Impact Description	Proposed Mitigation Measures
Direct Impact	Accidental leaks and spillages of hydrocarbons from waste trucks, and other vehicles could contaminate soils. However, the impact will be minimal as the site will be covered with an impervious surface.	• The Contractor will ensure that there is a supply of absorbent material (e.g. sawdust) readily available to absorb, breakdown and where possible encapsulate minor hydrocarbon spillage. • All construction vehicles and machinery should be kept in good working order to avoid fuel or oil leaks; • Vehicles and machinery displaying signs of leakage should be removed from site and necessary repairs should be undertaken off-site at an appropriate workshop area.
Indirect Impact	None Expected	None Required
Cumulative Impact	None Expected	None Required

Impact Ratings Before Mitigation																	
		Significance		**Extent**		**Duration**		**Probability**		**Degree of Certainty**	**Impact Risk**		**Intensity / Severity**	**Reversibility**	
Soils and Land Capability	**Direct Impact**	LOW	2	Isolated Sites / proposed site	1	Incidental	1	Unlikely	2	Probable	0.53	**Very Low**	**Low**	Immediately reversible	1

Impact Ratings After Mitigation													
		Significance		**Extent**		**Duration**		**Probability**		**Degree of Certainty**	**Impact Risk**		**Degree of Mitigation**
Soils and Land Capability	**Direct Impact**	LOW	2	Isolated Sites / proposed site	1	Incidental	1	Unlikely	2	Possible	0.53	**Very Low**	**High**

2.2.2 Land Use

Operational Phase	Impact Description	Proposed Mitigation Measures
Direct Impact	The Transfer Station may have negative visual impacts, as well as negative air quality impacts due to poor odours on adjacent land uses. Garbage, particularly food waste and grass, has a high potential for odour. Poor facility design and operational methods could lead to nuisance to adjacent landowners. Furthermore rodents and flies could be a nuisance at waste transfer stations which could easily spread into becoming a nuisance to adjacent landowners. Noise generated by heavy truck traffic and tipping of skips could create a noise impact in the area. However, due to the remote location of the site these impact should be low.	• Proper facility design can significantly reduce odour problems, therefore the wastes skips will be placed under roof to protect wastes from exposure to heat and sunlight. • Site manager must implement a pest control program at least every quarter; • "First-in, first-out" waste handling practices should be implemented on site to ensure that wastes are only kept on site for short periods. • Wastes from the tipping floor should be removed at the end of each operating day so that these surfaces can be swept clean and washed down. • Good housekeeping" measures should be implemented including regular cleaning and disinfecting of surfaces and equipment that come into contact with waste. • Water misting and/or deodorizing systems could be implemented. • Activities which generate the most noise should be conducted between standard business hours (8:00 to 17:00). No wastes should be collected from site or sorted on site on weekends or public holidays.
Indirect Impact	Windblown litter from vehicles during transport could have an impact on land uses located further away from the transfer station.	Waste trucks should not be overfilled and should be adequately covered with netting or another suitable cover to prevent windblown litter impacts.
Cumulative Impact	None expected	N/A

All impacts identified in this section have been rated under noise, visual, air quality, littering and health. Refer to these ratings in the relevant sections below.

2.2.3 Fauna

Operational Phase	Impact Description	Proposed Mitigation Measures
Direct Impact	Animals could consume wastes on site if the site is not well managed and littering occurs.	• Good housekeeping" measures should be implemented including regular cleaning; • The gate should remain closed and locked at all times outside of working hours.
Indirect Impact	Non-Biological Pest control programs implemented for rodent control could have a negative impact on birds, dogs and cats which could consume the poisoned rodents.	Biological or mechanical Pest control measures to be implemented. The best biological and mechanical rodent control measures as recommended by BirdLife Africa includes: • Barn Owls as a Biological control measure. Barn Owls can be attracted to cities by putting up owl nest boxes; and • Rat Zappers as a Mechanical control measure. With this method rodents are enticed into a trap in which they are killed by a quick but powerful electrical shock
Cumulative Impact	None expected.	N/A

Impact Ratings Before Mitigation															
		Significance		**Extent**		**Duration**		**Probability**		**Degree of Certainty**	**Impact Risk**		**Intensity / Severity**	**Reversibility**	
Fauna	**Direct Impact**	MODERATE	3	Local	3	Medium term	3	Will / Has occurred	5	Definite	3.00	**Moderate**	**Low**	Reversible over time	3
	Indirect Impact	MODERATE	3	Local	3	Medium term	3	Very Likely	4	Possible	2.40	**Moderate**	**Low**	Reversible over time	3

Impact Ratings After Mitigation													
		Significance		**Extent**		**Duration**		**Probability**		**Degree of Certainty**	**Impact Risk**		**Degree of Mitigation**
Fauna	**Direct Impact**	LOW	2	Local	3	Medium term	3	Unlikely	2	Probable	1.07	**Very Low**	**High**
	Indirect Impact	LOW	2	Local	3	Incidental	1	Unlikely	2	Possible	0.80	**Very Low**	**High**

2.2.4 Flora

Operational Phase	Impact Description	Proposed Mitigation Measures
Direct Impact	Poor vegetation establishment on areas rehabilitated after the construction phase, including the earth berm could result in the occurrence and spread of alien vegetation. Poor monitoring of vegetation establishment could lead to spread of weeds and alien invasive plants which could encroach into the nearby riparian area.	Vegetation establishment should be monitored for up to a period of six months after completion of construction activities. Alien vegetation control monitoring should also be undertaken. The earth berm should be maintained and alien vegetation monitoring should be undertaken throughout the life of the project.
Indirect Impact	Poor stormwater control on site, and accidental hydrocarbon spillages from heavy vehicles on site, could lead to contaminated surface water flowing into adjacent properties. The grading of the site will prevent contaminated stormwater from flowing towards the nearby riparian area, as the site will be graded to channel stormwater away from the riparian area.	Proper stormwater control measures to be implemented and grease trap to be installed. All heavy vehicles to be kept in good working order and serviced regularly.
Cumulative Impact	None expected	N/A

Impact Ratings Before Mitigation																	
		Significance		**Extent**		**Duration**		**Probability**		**Degree of Certainty**	**Impact Risk**		**Intensity / Severity**	**Reversibility**	
Flora	**Direct Impact**	MODERATE	3	Local	3	Medium term	3	Could occur	3	Possible	1.80	**Low**	**Medium**	Reversible over time	3
	Indirect Impact	MODERATE	3	Local	3	Incidental	1	Could occur	3	Possible	1.40	**Low**	**Medium**	Immediately reversible	1

Impact Ratings After Mitigation													
		Significance		**Extent**		**Duration**		**Probability**		**Degree of Certainty**	**Impact Risk**		**Degree of Mitigation**
Flora	**Direct Impact**	LOW	2	Local	3	Incidental	1	Could occur	3	Possible	1.20	**Low**	**Medium**
	Indirect Impact	LOW	2	Local	3	Incidental	1	Unlikely	2	Possible	0.80	**Very Low**	**High**

2.2.5 Surface Water and Ground Water

Operational Phase	Impact Description	Proposed Mitigation Measures
Direct Impact	Poor stormwater control on site, and accidental hydrocarbon spillages from heavy vehicles on site, could lead to contamination of surface water. Contaminated surface water could infiltrate and lead to contamination of ground water. Accidental leaks and spillages from used oil containers could lead to soils, surface water and groundwater contamination. Furthermore, oils are flammable, and negligence could cause site fires.	• Proper stormwater control measures to be implemented and grease trap to be installed. • All heavy vehicles to be kept in good working order and serviced regularly. • A licensed and registered services provider such as the Rose Foundation or Enviroserv should be appointed to collect used oils from site; • Used oils should be stored on site in safe approved containers as provided by licensed and registered services providers such as the Rose Foundation or Enviroserv; • Use oil tanks/containers shall be situated in a bunded area the volume of which shall be at least 110% of the volume of the largest tank. The floor of bund shall be smooth and impermeable constructed of concrete or plastic sheeting with impermeable joints with a layer of sand over to prevent perishing. The bund walls shall be formed of well-packed earth with the impermeable lining extending to the crest. The floor of the bund shall be sloped towards an oil trap or sump to enable any spilled fuel and/or fuel-soaked water to be removed. • A letter of commitment from the oil company indicating that the site, all equipment and secondary containment measures will comply with the applicable SANS and industry standards should be submitted to DEA prior to the commencement of operational activities.
Indirect Impact	Poor stormwater control on site, and accidental hydrocarbon spillages from heavy vehicles on site, could lead to contaminated surface water flowing onto adjacent properties. Contaminated surface water could infiltrate and lead to contamination of ground water.	Proper stormwater control measures to be implemented and grease trap to be installed. All heavy vehicles to be kept in good working order and serviced regularly.
Cumulative Impact	None Expected	None Required

Impact Ratings Before Mitigation																
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Intensity / Severity	Reversibility	
Surface and Groundwater	Direct Impact	MODERATE	3	Study Area	2	Medium term	3	Could occur	3	Possible	1.60	Low	Medium	Reversible over time	3
	Indirect Impact	MODERATE	3	Local	3	Incidental	1	Could occur	3	Possible	1.40	Low	Medium	Immediately reversible	1

Impact Ratings After Mitigation													
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Degree of Mitigation
Surface and Ground water	Direct Impact	LOW	2	Study Area	2	Incidental	1	Could occur	3	Definite	1.00	Very Low	High
	Indirect Impact	LOW	2	Local	3	Incidental	1	Unlikely	2	Possible	0.80	Very Low	High

2.2.6 Air Quality

Operational Phase	Impact Description	Proposed Mitigation Measures
Direct Impact	Waste, particularly food waste and grass, has a high potential for odour. Poor facility design and operational methods could lead to nuisance to adjacent landowners. Although, the site has a very remote location and is situated downwind of the town of Amalia. Waste trucks and vehicles travelling to the transfer station site will travel along an approximate 1.5km dirt road. Vehicle traffic on the dirt road will cause dust impact.	• Proper facility design can significantly reduce odour problems. • "First-in, first-out" waste handling practices should be implemented on site to ensure that wastes are only kept on site for short periods. • Wastes from the tipping floor should be removed at the end of each operating day so that these surfaces can be swept clean and washed down. • Good housekeeping" measures should be implemented including regular cleaning and disinfecting of surfaces and equipment that come into contact with waste. • Water misting and/or deodorizing systems could be implemented. • Vehicle speeds to be strictly controlled to 40km/h in order to minimize dust impact.
Indirect Impact	Waste trucks and vehicles travelling to the transfer station site will travel along an approximate 1.5km dirt road. Vehicle traffic on the dirt road will cause dust impact.	Vehicle speeds to be strictly controlled to 40km/h in order to minimize dust impact.

Operational Phase	Impact Description	Proposed Mitigation Measures
Cumulative Impact	None expected.	N/A

		Impact Ratings Before Mitigation													
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Intensity / Severity	Reversibility	
Air Quality	Direct Impact	MODERATE	3	Study Area	2	Medium term	3	Could occur	3	Probable	1.60	Low	Low	Reversible over time	3
	Indirect Impact	HIGH	4	Local	3	Medium term	3	Very Likely	4	Possible	2.67	Moderate	Low	Reversible over time	3

		Impact Ratings After Mitigation											
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Degree of Mitigation
Air Quality	Direct Impact	LOW	2	Study Area	2	Incidental	1	Could occur	3	Possible	1.00	Very Low	High
	Indirect Impact	LOW	2	Local	3	Incidental	1	Could occur	3	Possible	1.20	Low	Medium

2.2.7 Noise

Operational Phase	Impact Description	Proposed Mitigation Measures
Direct Impact	Noise generated by heavy truck traffic and tipping of skips cause noise impact. However, the site proposed for transfer station construction has a very remote location, and noise impact is not expected to be significant.	Activities which generate the most noise should be conducted between standard business hours (8:00 to 17:00). No wastes should be collected from site on weekends or public holidays.
Indirect Impact	None expected	N/A
Cumulative Impact	None expected	N/A

Impact Ratings Before Mitigation																	
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Intensity / Severity	Reversibility	
Noise	**Direct Impact**	MODERATE	3	Local	3	Medium term	3	Very Likely	4	Probable	2.40	**Moderate**	**Low**	Reversible over time	3

Impact Ratings After Mitigation													
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Degree of Mitigation
Noise	**Direct Impact**	MODERATE	3	Local	3	Medium term	3	Could occur	3	Possible	1.80	**Low**	**Medium**

2.2.8 Visual

Operational Phase	Impact Description	Proposed Mitigation Measures
Direct Impact	The site earmarked for development of the transfer station has a very remote location. However, the site may have a visual impact on the adjacent livestock auction yard, and on the shop located a few metres to the south east of the site.	• Proper facility design can significantly reduce odour problems. • "First-in, first-out" waste handling practices should be implemented on site to ensure that wastes are only kept on site for short periods. • Wastes from the tipping floor should be removed at the end of each operating day so that these surfaces can be swept clean and washed down. • Good housekeeping" measures should be implemented including regular cleaning and disinfecting of surfaces and equipment that come into contact with waste.
Indirect Impact	Windblown litter from vehicles during transport could have an impact on land uses located further away from the transfer station.	Waste trucks should not be overfilled and should be adequately covered with netting or another suitable cover to prevent windblown litter impacts.
Cumulative Impact	None expected	N/A

Impact Ratings Before Mitigation																	
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Intensity / Severity	Reversibility	
Visual	Direct Impact	MODERATE	3	Local	3	Medium term	3	Very Likely	4	Probable	2.40	Moderate	Low	Reversible over time	3
	Indirect Impact	MODERATE	3	Local	3	Medium term	3	Very Likely	4	Possible	2.40	Moderate	Low	Reversible over time	3

Impact Ratings After Mitigation													
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Degree of Mitigation
Visual	Direct Impact	LOW	2	Local	3	Incidental	1	Could occur	3	Probable	1.20	Low	Medium
	Indirect Impact	LOW	2	Local	3	Incidental	1	Could occur	3	Probable	1.20	Low	Medium

2.2.9 Health

<table>
<tr><th>Operational Phase</th><th>Impact Description</th><th>Proposed Mitigation Measures</th></tr>
<tr><td>Direct Impact</td><td>Rodents could be a nuisance and a potential health concern at waste transfer stations which could easily spread into becoming a nuisance to adjacent landowners.

Potential Health hazards associated with green waste, which is a potential health hazard for transfer station site employees includes:
<table>
<tr><th>Problem (Infections, Chemicals, Skin)</th><th>Cause</th><th>Route into the body</th></tr>
<tr><td>Rat Fever (leptospirosis)</td><td>Rat Urine</td><td>Cuts and abrasions</td></tr>
<tr><td>Tetanus (lockjaw)</td><td>Soils and organic material</td><td>Deeper cuts and wounds</td></tr>
<tr><td>Butolism</td><td>Soils</td><td>Ingestion: hand to mouth contact</td></tr>
<tr><td>Problem (Infections, Chemicals, Skin)</td><td>Cause</td><td>Route into the body</td></tr>
<tr><td>Pasteurella Multocida</td><td>Bites</td><td>Skin pierced by bites</td></tr>
<tr><td>Pesticide and Insecticide residues</td><td>Garden sprays, weed killers etc</td><td>Cuts, abrasions, Hands to mouth contact</td></tr>
</table></td><td>• Site manager must implement a pest control program at least every quarter.
• Good housekeeping” measures should be implemented including regular cleaning and disinfecting of surfaces and equipment that come into contact with waste.
• Removing all waste delivered to the facility by the end of each day and cleaning the receiving floor daily.

Potential Health Hazard – Preventative Measures:
<table>
<tr><th>Problem (Infections, Chemicals, Skin)</th><th>Preventative Measures</th></tr>
<tr><td>Rat Fever (leptospirosis)</td><td>Good House-keeping and good hygiene</td></tr>
<tr><td>Tetanus (lockjaw)</td><td>Wear protective clothes e.g. gloves, safety shoes etc</td></tr>
<tr><td>Butolism</td><td>Cover cuts and abrasions, wash hands during breaks</td></tr>
<tr><td>Problem (Infections,</td><td>Preventative Measures</td></tr>
</table></td></tr>
</table>

Operational Phase	Impact Description	Proposed Mitigation Measures
	Premature Skin Ageing and Skin Cancer — Excessive exposure to strong sunlight — Through unprotected skin	Chemicals, Skin) — Pasteurella Multocida — Clean any wound quickly and apply antiseptic Pesticide and Insecticide residues — Wear protective clothing, Good Hygiene practices Premature Skin Ageing and Skin Cancer — Wear long sleeved clothing Wear hats • Protective clothing to be worn on the garden site: o Protective overalls o Dust masks o Safety goggles o Gloves o Safety boots o Gum boots o Rain suit o Hats
Indirect Impact	None expected	N/A
Cumulative Impact	None expected	N/A

		Impact Ratings Before Mitigation													
		Significance		**Extent**		**Duration**		**Probability**		**Degree of Certainty**	**Impact Risk**		**Intensity / Severity**	**Reversibility**	
Health	**Direct Impact**	HIGH	4	Study Area	2	Medium term	3	Very Likely	4	Probable	2.40	**Moderate**	**Low**	Reversible over time	3

		Impact Ratings After Mitigation											
		Significance		**Extent**		**Duration**		**Probability**		**Degree of Certainty**	**Impact Risk**		**Degree of Mitigation**
Health	**Direct Impact**	LOW	2	Study Area	2	Incidental	1	Could occur	3	Possible	1.00	**Very Low**	**High**

2.2.10 Traffic / Waste / Litter

Operational Phase	Impact Description	Proposed Mitigation Measures
Direct Impact	Littering from open waste skips could occur under windy conditions. Furthermore litter from the tipping floor could spread to adjacent sites under windy conditions. Heavy waste vehicles travelling to and from site could have an impact on traffic in the area. However, low volumes of traffic occur in the study area.	• All vehicles transporting wastes should not be overfilled and should be adequately covered with netting or another suitable cover to prevent windblown litter impacts. • Waste should only be collected and delivered to site between normal business hours. A waste collection schedule should be compiled to prevent traffic piling up outside the gates. • Patrolling nearby access roads to control litter from truck traffic.
Indirect Impact	Windblown litter from heavy waste vehicles, could have an impact on land uses located further away from the transfer station. Heavy waste vehicles travelling to and from site could have an impact on traffic in the area.	As per direct impact.
Cumulative Impact	None expected	N/A

Impact Ratings Before Mitigation																	
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Intensity / Severity	Reversibility	
Traffic / Waste / Litter	**Direct Impact**	MODERATE	3	Local	3	Medium term	3	Very Likely	4	Probable	2.40	**Moderate**	**Low**	Reversible over time	3
	Indirect Impact	MODERATE	3	Local	3	Medium term	3	Very Likely	4	Possible	2.40	**Moderate**	**Low**	Reversible over time	3

Impact Ratings After Mitigation													
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Degree of Mitigation
Traffic / Waste / Litter	**Direct Impact**	LOW	2	Local	3	Incidental	1	Could occur	3	Probable	1.20	**Low**	High
	Indirect Impact	LOW	2	Local	3	Incidental	1	Could occur	3	Probable	1.20	**Low**	High

2.2.11 Socio-Economic

Operational Phase	Impact Description	Proposed Mitigation Measures
Direct Impact	**Positive Impact:** Potential job opportunities for local residents could be created during the operational phase of the proposed new waste transfer station.	N/A
Indirect Impact	None expected	N/A
Cumulative Impact	None expected	N/A

2.2.12 Safety and Security

Operational Phase	Impact Description	Proposed Mitigation Measures
Direct Impact	Poor security control measures could lead to: • Dumping of wastes not permitted at the site; • Illegal collection of recyclable wastes; • Site becoming overfilled; and • Littering on site and off site.	**Security Personnel responsibilities** • The security officer should report on site by 6 a.m. and leave not later than 18:00 p.m. • Gates should be manned at all times between operating hours; • Take down registration number of vehicles entering the gate • Ensure that vehicles entering the gate have the correct type of waste • Direct vehicles to the correct bins where the site attendant will be standing • Treat all clients with respect and courtesy • In the case where the queues are long and there are delays, advise clients of such and ask for their patience. • Open site to the public even if it is full. At no stage during normal working hours should the site be closed. • Co-operate with site attendants at all times and at no stage should the security personnel bully the site attendant • They should at no stage during working hours be under the influence of alcohol.
Indirect Impact	None Expected	N/A
Cumulative Impact	None Expected	N/A

Impact Ratings Before Mitigation																	
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Intensity / Severity	Reversibility	
Safety and Security	Direct Impact	MODERATE	3	Study Area	2	Medium term	3	Very Likely	4	Probable	2.13	Moderate	Low	Reversible over time	3

Impact Ratings After Mitigation													
		Significance		Extent		Duration		Probability		Degree of Certainty	Impact Risk		Degree of Mitigation
Safety and Security	Direct Impact	LOW	2	Study Area	2	Incidental	1	Could occur	3	Probable	1.00	Very Low	High

2.3 Decommissioning and Closure Phase

It is not anticipated that the transfer station site will be decommissioned as this facility is required in the area. Should the site ever be decommissioned and closed, a Closure Plan needs to be compiled by a suitably qualified Environmental Assessment Practitioner and should be submitted to NW DEDECT for review and approval.

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 3 (Preferred Alternative)

With the implementation of mitigation measures prescribed in the Basic Assessment Report, and with the implementation of management and monitoring measures prescribed in the EMP, all impacts expected during the construction and operational phase of the Transfer Station could be of low to very low risk.

Furthermore, the Transfer Station will have a positive impact in the study area, as the unsightly, unlicensed and unlined landfill site will be closed, once the transfer station is up and running. Therefore, all health and visual impacts associated with the landfill site will no longer exist in the area.

No-go alternative (compulsory)

With the Closure of the Amalia Landfill site, a temporary Waste Storage Area is required, as wastes cannot be collected on a daily basis from the Amalia households and transported to the Schweizer-Reneke Landfill site. A well designed and well managed Waste Transfer Station is therefore required. Without developing the Transfer Station there will not be a facility to store wastes. The No-Go Alternative is therefore not an option.

SECTION E. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?	YES X	NO

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment):

N/A

If "YES", please 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:

All mitigation measures addressed in the Basic Assessment Report, as well as monitoring and mitigation measures proposed in the EMPr should be adhered to.

Furthermore, a Closure Plan should be compiled and submitted to the NW DEDECT for review and approval prior to decommissioning of activities on site, should the site ever be decommissioned. An Emergency Preparedness Plan should be attached to the Closure Plan.

Is an EMPr attached?	YES X	NO

The EMPr must be attached as Appendix F.

SECTION F: 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: Environmental Management Programme (EMPr)

Appendix G: Other information

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: Environmental Management Programme (EMPr)

Appendix G: Other information