

Final Basic Assessment Report for the Proposed N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility



Reference No: Gaut: 002/12-13/W0004

October 2013



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Application Form

Please take note of the following addendums to the Waste License Application of NN Metals Reclamation Facility.

Addendum A: Waste Management Plan

Addendum B: Waste Hierarchy Implementation Plan



Gauteng Department of Agriculture and Rural Development

Application for NEW license in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008), as amended and the Environmental Impact Assessment Regulations, 2010 (Version 1)

PART 1: THE WASTE LICENSING APPLICATION PROCESS

SECTION 1: LICENSING APPLICATION PROCESS FOR WASTE ACTIVITIES EXPLAINED

- 1.1 Licensing process:
 - 1.1.1 The waste licensing process for listed activities under Schedule 1 in the National Environment Management Waste Act, 2008 (Act 59 of 2008) (NEMWA) is outlined in the Environmental Impact Assessment (EIA) Regulations, 2010 made under section 24(5) of the National Environment Management Act, 1998 (Act 107 of 1998).
 - 1.1.2 This application form is the official form in terms of Regulation 12 of the EIA Regulations of 2010 and must accompany every waste license application pertaining to general and hazardous waste.
- 1.2 Where to submit applications
 - 1.2.1 The MEC/HOD is the competent authority in respect of all listed activities listed in both categories of Schedule 1 pertaining to waste. The application for a waste license in terms of section 45 of NEMWA must be submitted by lodging an application with the Gauteng Department of Agriculture and Rural Development. The application must be marked as follows:

Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
 Gauteng Department of Agriculture and Rural Development
 Waste Management Directorate
 P.O. Box 8769
 Johannesburg
 2000

Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
 Waste Management Directorate
 16th floor: Glen Cairn Building
 73 Market Street, Johannesburg

Administrative Unit telephone number: (011) 355 1345
 Department central telephone number: (011) 355 1900

- 1.3 Making an Application
 - 1.3.1 The applicant must fill in all relevant sections of this form. Incomplete applications will not be processed. The applicant will be notified of the missing information in the acknowledgement letter that will be sent within 14 days of receipt of the application. Sections in the form that do not apply to the applicant must be marked "not applicable".
 - 1.3.2 There is no prescribed fee at this stage.
 - 1.3.3 Three copies of this form and the attachments must be handed in at the offices of the relevant competent authority as detailed below.
 - 1.3.4 Please clearly mark confidential sections of the information submitted in this application and the supporting documents. All other information will become public information on receipt by the Department.
 - 1.3.5 Attachments, where applicable, to this document are to be ordered in the following prescribed manner:

Annexure - A	Locality Map
Annexure - B	a) Proof of notification to the Land owner b) Proof of receipt of such notice by the owner
Annexure - C	List of all organs of state and State Departments of where the draft report will be submitted, their full contact details and contact person

Annexure - D	Property description list
Annexure - E	Current land use zonings list
Addendum -A	Declaration of Independence by EAP to be submitted with the report if the application form was submitted by applicant

SECTION 2: DEFINITIONS

- 2.1 Definitions in this form are as per the EIA Regulation, 2010 and waste management activities list in terms of NEMWA.

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SECTION 3: THE WASTE LICENSING APPLICATION STAGES

- 3.1 Stage 1: Pre-application
Before making an application:
- The applicant must appoint an EAP in terms of EIA Regulations, 2010
 - The EAP must comply with general requirements as given in EIA Regulations, 2010
 - The EAP may be disqualified in terms of EIA Regulations, 2010
- 3.2 Criteria for determining whether basic assessment or scoping is to be applied to applications:
- 3.2.1 Basic assessment must be applied to an application if the authorisation applied for is in respect of an activity listed in Category A in schedule 1 of NEMWA.
- 3.2.2 Scoping and EIA must be applied to an application if the authorisation applied for is in respect of an activity listed in Category B in schedule 1 of NEMWA.

SECTION 4: PROJECT ADMINISTRATIVE DETAILS

(For official use only)

File Reference Number:
Date Received:
Classification:

WASTE LICENSE APPLICATION FORM

in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)

Select the appropriate box with regards to the application form submission

Is this an application for conducting a Basic Assessment (as defined in the Regulations)?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>		
Please indicate when the Basic Assessment Report will be submitted:	The Draft Report will be made available for an I & AP and local authority review period in June 2012.			
Is this an application for conducting a Scoping & EIA process (as defined in the Regulations)?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>		
Please indicate when the Scoping Report and Plan of Study for EIA will be submitted:				
Is this a resubmission of an application for conducting a Basic Assessment (as defined in the Regulations)?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>		
Is this a resubmission of an application for conducting a SR & EIA process (as defined in the Regulations)?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>		

Has this project or a substantial similar project which has been previously submitted by the applicant been denied licensing / permitting by the relevant authority in the last 3 (three) years
If yes will the application contain new or additional material not submitted previously

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

To be noted that Regulation 78 of EIA Regulations, 2010 states that no applicant may resubmit an application which is substantially similar to an application denied authorisation by the relevant authority unless 3 years has lapsed or new material is to be presented

Please ensure that Appendix A1, B1 and B2 are completed and included in reports to be submitted

SECTION 5: ACTIVITIES APPLIED FOR

An application may be made for more than one listed or specified activity that, together, make up one development proposal. All the listed activities that make up this application must be listed.

INDICATE THE NO. & DATE OF THE RELEVANT NOTICE:	CATEGORY A OR B (AS LISTED IN NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT)	ACTIVITY NUMBERS (AS LISTED IN EITHER CATEGORY A OR B OF NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT)	DESCRIBE EACH LISTED ACTIVITY:
GN 718 of 3 July 2009	Category A	Activity 1	The storage, including the temporary storage of general waste at a facility that has the capacity to store in excess of 100m ³ of general waste at any one time, excluding the storage of waste in lagoons.



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GN 718 of 3 July 2009	Category A	Activity 5	The sorting, shredding, grinding or bailing of general waste at a facility that has the capacity to process in excess of one ton of general waste per day.
GN 718 of 3 July 2009	Category A	Activity 7	The recycling or re-use of general waste of more than 10 tons per month
GN 718 of 3 July 2009	Category A	Activity 8	The recovery of waste including the refining, utilisation, or co-processing of the waste at a facility that has the capacity to process in excess of three tons of general waste or less that 500kg of hazardous waste per day, excluding recovery that takes place as an integral part of an internal manufacturing process within the same premises.
GN 718 of 3 July 2009	Category A	Activity 9	The biological, physical or physico-chemical treatment of general waste at a facility that has the capacity to process in excess of 10 tons of general waste per day.
GN 718 of 3 July 2009	Category A	Activity 18	The construction of facilities for activities listed in Category A of this Schedule.
GN 718 of 3 July 2009	Category A	Activity 19	The expansion of facilities for or changes to existing facilities for any process or activity, which requires an amendment of an existing permit or license or a new permit or license in terms of legislation governing the release of pollution, effluent or waste.

PART 2: APPLICATION FORM FOR NEW LICENSE

SECTION 1 – TYPE OF FACILITY:

Indicate the type of facility/operation and fill in the required sections only

TYPE OF ACTIVITY	MARK	SECTIONS OF THE FORM TO BE FILLED IN
Recycling and/or recovery Facility	X	All except Section 8
Storage and/or transfer Facility	X	All except Section 8
Treatment facility		All except Section 8
Disposal facility		All sections

All sections of this form are important and they must all be filled as per this section.

NB: Authorisation issued will only cover activities applied for and listed above. Activities added in the middle or after the processing of this authorisation may mean a totally new application.

SECTION 2: SITE IDENTIFICATION, LOCATION AND LANDUSE

Please give a full description of the property on which the site is situated in terms of the Deeds Act and examples of the address are:

- Portion 49 (portion of Portion 27) of the farm Brandbach 471 JR
- -Remainder of the farm Klaver Valley 356
- -Remaining Extend of Portion 6 of the farm Klaver Valley 356
- -Sub 36 (sub of Sub 24) of the farm Weltevreden 1017
- -Plot 10 of Hunters Hill Agricultural holdings
- -Portion 1 of Erf 155, Dendron Township

309 Mundt Street; Watloo; Gauteng

Size of Site and Classification

Size of facility for a waste management activity

12377, 9 m² (1.237 Ha)

Classification of facility in terms of climatic water balance

To be confirmed during the Basic Assessment Process

Classification of Facility in terms of the type and the quantity of waste received

**Waste Recycling/Recovery Facility
Waste Storage Facility**

Current land-use where the site is situated:

Industrial	X
Agriculture	
Residential	
Forestry	
Wetlands	
Open spaces	

Recreation	
Commercial	
Mining & quarrying	
Wilderness areas	
Nature area	

Other.....
.....

Is a change of land-use or a consent use application required?

MARK YES/NO	SECTION IN THE REPORTS WHERE RELAVANT AUTHORISATION IS ATTACHED
NO	
NO	

Must a building plan be submitted to the local authority for approval?

Geographical coordinates of the external corner points of the site:

Number of corner	Latitude		Longitude			
1.	25°	43'	14,191"	28°	19'	13,796"
2.	25°	43'	18,649"	28°	19'	13,536"
3.	25°	43'	18,794"	28°	19'	16,581"
4.	25°	43'	14,368"	28°	19'	16,839"
5.	25°	43'	14,239"	28°	19'	19,309"
6.	25°	43'	14,066"	28°	19'	15,709"

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Site Address:

Building Name or Number			
Street	300 Mundt Street		
City/Closest Town	Waltloo		
Province	Gauteng		
Local Municipality	City of Tshwane (CoT)		
District Municipality	City of Tshwane (CoT)		
Postal address	P.O. Box 139		
	La Montagne		
Postal code:	0184	Cell:	082 825 9156
Telephone:	(012) 541 0547	Fax:	(012) 541 0549
E-mail:	rinaverster.nnm@gmail.com		

SECTION 3: CONTACT INFORMATION

A) Person to contact about application (EAP)

First name & Surname

Company name (if any):

Company Registration/identity number for individuals

Physical address:

Postal address:

Postal code:

Telephone:

Email Address

Mrs. Lizelle Gregory			
Bokamoso Landscape Architects & Environmental Consultants			
Reg No. 2000/054190/23			
Lebombo Gardens Building, 36 Lebombo Road			
Ashlea Gardens, 0081			
P.O. Box 11375, Maroelana			
0161	Cell:	083 255 8384	
(012) 346 3810	Fax:	086 570 5859	
lizelleg@mweb.co.za			

B) First name & Surname of Applicant -- (Person wishing to hold license)

Company name (if any):

Contact person

Trading name (if applicable)

Company Registration/identity number for individuals

Physical address

Postal address

Postal code:

Telephone:

E-mail:

Mr. P.C Human			
N. N. Metals (Pty) Ltd			
Mrs. Rina Verster			
N. N. Metals (Pty) Ltd			
Reg No: 1996/002492/07			
300 Mundt Street			
Waltloo			
P.O Box 139			
La Montagne			
0200	Cell:	082 825 9156	
(012) 541 0547	Fax:	(012) 541 0549	
rinaverster.nnm@gmail.com			

In instances where the applicant is not the land owner attach the land owner consent form

List of land owners attached

NO

Land owner consent form attached

NO



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C) First name & Surname of Landowner where activity takes place
 Company name (if any):
 Trading name (if applicable)
 Contact person
 Company Registration/Identity number for Individual(s)
 Physical address

Mr. P.C Human		
Unitrade 86 (Pty) Ltd		
Mrs. Rina Verster		
Reg No: 1996/000609/07		
300 Mundt Street		
Waltloo		
P.O. Box 139		
La Montagne	Cell:	082 8259 1560
(012) 541 0547	Fax:	(012) 541 1059
E-mail: rinaerverster.nnm@gmail.com		

Postal address

Telephone:

E-mail:

D) Local Authority in whose jurisdiction the proposed activity will fall
 Contact person
 Postal address

City of Tshwane (COT) Environmental Management Division		
Ms. Rudzani Mukhell		
P.O. Box 1454, Pretoria, 0001		
	Cell:	
(012) 358 8731	Fax:	(012) 358 8934
E-mail: rudzanim@tshwane.gov.za		

In instances where there is no than one Local Authority involved, please attach a list of Local Authorities with their contact details to this application

List of Local Authorities attached

NO

Property description

300 Mundt Street, Waltloo, Gauteng

(farm name, portion etc) where a large number of properties (including alternatives) are involved (e.g. linear activities), please attach a list of a property descriptions to this application

List of properties attached

NO

Town(s) or district(s)

Waltloo; City of Tshwane

Street/ physical address

300 Mundt Street

In instances where there is more than one town or district (including alternatives) involved, please attach a list of towns or districts to this application

Current zoning

Industrial

In instances where there is more than one current land use zoning (including alternatives) please attach a list of current land use zonings that also indicate which portions each use pertains to, to this application

List of current land use zonings is attached

NO

Socio-economic value of the activity

What is the expected capital value of the activity on completion?

What is the expected yearly income that will be generated by or as a result of the activity?

Will the activity contribute to service infrastructure?

Will the activity contribute to a public amenity

Total number of new employment opportunities to be created in the development phase of this activity.

Of these opportunities how many are:

±R 7.5 m	
Not Available	
YES	NO
	X
YES	NO
Not Available	
15	

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Women	0
People with disabilities	
Female	0
Male	2
Youth	
Female	0
Male	0
What is the expected value of the employment opportunities during the development phase?	Not Available
What percentage of this will accrue to previously disadvantaged individuals?	Not Available
Total number of new employment opportunities to be created in the operational phase of this activity.	100
Of these opportunities how many are: Women	25
People with disabilities	Not Available
Female	Not Available
Male	Not Available
Youth	None
Female	None
Male	None
What is the expected current value of the employment opportunities during the first 10 years?	R7.4 m/annum (R74 m/10 years)
What percentage of this will accrue to previously disadvantaged individuals?	±40%

Need and desirability of the activity

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

N. N Metals (Pty) Ltd is a prominent and well known dealer of ferrous and non-ferrous metals, and their metal reclamation facilities services a considerable number of scrap metal suppliers, dealers and vendors in the Pretoria, Brits and Phalaborwa area. N.N. Metals (Pty) Ltd is operating an existing metal reclamation facility in Koedoespoort, Silverton. The property in Koedoespoort is however owned by Transnet, and thus it is the intension to relocate their existing facility to a property in Waitloo which is owned by the holding company of N.N Metals. The relocation of the existing facility is thus therefore a needed action and desirable, to ensure the feasibility and profitability of the existing reclamation facility.

The proposed metal reclamation facility will furthermore be operated at a property in Waitloo, which is located in an existing industrial node. The proposed reclamation facility will thus be desirable in terms of locality and land-use.

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

As discussed before, N. N. Metals (Pty) Ltd is a prominent and well known dealer in ferrous and non-ferrous metals. Their metal reclamation facilities services a number of scrap metal suppliers, dealers and vendors in the Brits, Pretoria and Phalaborwa area. Though the N.N. Metals (Koedoespoort) facility, a platform has been created that generated income for a number of scrap metal suppliers. It is the intension to retain the said function, through relocation of the Koedoespoort facility to Waitloo.

The construction and operation of the facility will furthermore generate a number of employment opportunities, and contribute to micro economic growth within the area.

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

As discussed before, N. N. Metals (Pty) Ltd is a prominent and well known dealer in ferrous and non-ferrous metals. Their metal reclamation facilities services a number of scrap metal suppliers, dealers and vendors in the Brits, Pretoria and Phalaborwa area. Though the N.N. Metals (Koedoespoort) facility, a platform has been created that generated income for a number of scrap metal suppliers. It is the intension to retain the said function, through relocation of the Koedoespoort facility to Waitloo.

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The proposed metal reclamation facility will furthermore through the generation of employment opportunities offer economic turnover, and contribute to micro economic growth.

Operational times

PERIOD	FROM	UNTIL
Weekdays	07:30	17:00
Saturdays	07:30	12:00
Sunday		
Public holidays		

SECTION 4: PROCESS/ACTIVITY DESCRIPTION:

Project Title **N. N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility**

Please provide a brief description of the activities and operations at the site. Provide a flow chart of the operation showing all inputs and outputs of the process. Give particulars of the source, location, nature, composition and quantity of emission to the atmosphere, surface water, sewer, and ground-water including noise emissions. Solid waste must be in tons and specify units for liquids and gases.

4.1 Process overview of the proposed Metal Reclamation Facility

Please refer to Annexure F for a diagrammatical illustration of the process as described below:

4.1.1. Input Material:

Ferrous and Non-ferrous scrap metal is supplied by a number of external suppliers and vendors, delivered to the operation by truck and/or bakkie loads. (Please note that an external supplier will specifically deliver either non-ferrous metals or ferrous metals, or both, but however separated, thus creating two waste streams). The scrap metal received is visually inspected prior to being weighed, to remove any other waste material that will not be recycled as part of the process. Such materials are designated as unwanted, and are disposed by the service provider and/or vendor which supplied the scrap metal in the first instance. The scrap metal is weighed at a weighbridge (situated at the entrance of the site) or a platform/bench scale for small weight items not delivered in truck and/or bakkie loads.

4.1.2 Ferrous scrap metal waste stream:

Ferrous metals are able to be recycled, with steel being the most recycled material in the world. Ferrous metals contain an appreciable percentage of iron and the addition of carbon and other substances creates steel. The most commonly recycled items are containers, cans, structural steel, parts of motor vehicles, household appliances etc. Ferrous metals are once weighed, graded and sorted into (a) steel, (b) sub-grade material and (c) cast iron and routed to different stockpiles at the facility. Please note that in many instances an external supplier may deliver ferrous scrap metals as steel, or sub-grade material or cast iron prior to being weighed. The stockpiles of steel and sub-grade material are in addition visually inspected to separate and remove any (1) non-ferrous metals or (2) other waste material which remained behind in the graded stockpiles.

(a) Ferrous scrap metal waste stream: Steel Material

Once separated from the sub-grade material, the dimensions and sizes of the steel are reduced with the use of a cutting torch and/or cropper. The steel material is essentially reduced to enable the enhanced handling, loading and transportation thereof. The steel once reduced, are stockpiled as recycled material, collected by trucks and transported to clients.

(b) Ferrous scrap metal waste stream: Sub-grade material

The sub-grade material is either directly collected from the stockpiles by trucks or reduced through the use of a balling machine.

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(c) Ferrous scrap metal waste stream: Cast Iron

The cast iron is directly collected from the stockpiles by trucks and transported to clients.

4.1.3 Non-ferrous scrap metal waste stream:

A non-ferrous metal is any metal, including alloys, that does not contain iron in appreciable amounts. Non-ferrous metals are generally more expensive due to its desirable properties such as low weight, higher conductivity, non-magnetic property, or resistance to corrosion. Some important non-ferrous metals include aluminium, copper and the alloy brass, lead, nickel, tin and titanium.

Non-ferrous metals are supplied by external suppliers and vendors. Non-ferrous metals, once weighed are visually sorted, and graded (in different classes) at an enclosed waste management facility. The non-ferrous scrap metal is as with the ferrous metal waste stream visually inspected to remove other waste material that will not be recycled in the process. Such materials are temporary stored on site at a designated waste storage area and/or facility until disposed of by a service provider. The non-ferrous metals are once sorted and graded, temporarily stored at the enclosed waste management facility until collected by trucks and transported to clients.

Additional information can be provided as Appendix



SECTION 5: WASTE QUANTITIES

Indicate or specify types of waste and list the estimated quantities expected to be managed daily (should you need more columns, you are advised to add more)

Hazardous waste	Non hazardous / general waste	Total waste handled (tonnes per day)
General waste/domestic material other than ferrous and non-ferrous scrap metals	880 kg /22 = 40 kg (0.04 t)	
Ferrous scrap metal (steel)	2000 t /22 = 91t	
Ferrous scrap metal (sub-grade)	375/22 = 17 t	
Ferrous scrap metal (cast-iron)	100/22 = 4.5 t	
Non-ferrous scrap metal	200/22 = 9 t	

Source of information supplied in the table above Mark with an "X"

- Determined from volumes
- Determined with weighbridge/scale
- Estimated



Recovery, Reuse, Recycling, treatment and disposal quantities:

Indicate the applicable waste types and quantities expected to be disposed of and salvaged annually:

TYPES OF WASTE	MAIN SOURCE (NAME OF COMPANY)	QUANTITIES		ON-SITE RECOVERY REUSE RECYCLING TREATMENT OR DISPOSAL method & location	OFFSITE RECOVERY REUSE RECYCLING TREATMENT OR DISPOSAL method location and contractor details	OFFSITE DISPOSAL
		TONS/ MONTH	TONS/ MONTH			
General waste/domestic material other than ferrous and non-ferrous scrap metals	General waste and/or domestic waste, (waste material other than ferrous and non-ferrous scrap metals) are removed from scrap metal stockpiles, and temporary stored on site, at a designated area prior to disposal by a contracted service provider.	0.08 t		On site Recovery General waste materials, including domestic waste are removed from scrap metal stockpiles during the metal reclamation process, and temporarily stored at a designated waste storage area at the facility, until disposed of by a contracted service provider. General waste, including domestic waste is produced by the operations of the waste reclamation facility, and temporarily stored at a designated waste storage area, until disposed of by a contracted service provider.		Off Site Disposal: City of Tahwene Waste Management Division. Location of disposal will be confirmed in the Basic Assessment Report

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			<p>On site Recycling:</p> <p>Ferrous scrap metals are supplied by a number of external suppliers and vendors, delivered to the reclamation facility by truck and/or bakkie loads. The scrap metal received is visually inspected, to remove any other waste material that will not be recycled as part of the process. Such materials are designated as unwanted, and are disposed of by the service provider and/or vendor which supplied the scrap metal in the first instance. The scrap metal is weighed at a weighbridge (situated at the entrance of the site) or platform/bench scale for small weight items.</p> <p>Ferrous metals are once weighed, sorted into (a) steel, (b) sub-grade material, and (c) cast iron. (Please note that in many instances an external supplier will deliver ferrous scrap metal as steel, sub-grade material or cast-iron).</p> <p>The steel is stockpiled on a surface with secondary containment (concrete lined). The steel is once separated from the sub-grade and cast iron, reduced with the use of a cutting torch and/or cropper. The steel is once reduced stockpiled as recycled material for collection by clients.</p>	
<p>Ferrous scrap metal (steel)</p>	<p>External scrap metal suppliers and vendors</p>	<p>2000 t</p>		
<p>Ferrous scrap metal (sub-grade)</p>	<p>External scrap metal suppliers and vendors</p>	<p>375 t</p>	<p>On site Recycling:</p> <p>Ferrous scrap metals are supplied by a number of external suppliers and vendors, delivered to the reclamation facility by truck and/or bakkie loads. The scrap metal received is visually inspected, to remove any other waste material that will not be recycled as part of the process. Such materials are designated as unwanted, and are disposed of by the service provider and/or vendor which supplied the scrap metal in the first instance. The scrap metal is weighed at a weighbridge (situated at the entrance of the site) or platform/bench scale for small weight items.</p> <p>Ferrous metals are once weighed, sorted into (a) steel, (b) sub-grade material, and (c) cast iron. (Please note that in many instances an external supplier will deliver ferrous scrap metal as steel, sub-grade material or cast-iron).</p> <p>The sub-grade material is once separated, stockpiled on a surface with secondary containment. The sub-grade material is in many instances reduced through the use of a baling machine. This process will take place in an enclosed waste management facility. The reduced sub-grade material is once reduced stockpiled as recycled material for collection by clients.</p>	

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<p>Ferrous scrap metal (cast-iron)</p>	<p>External scrap metal suppliers and vendors</p>	<p>100 t</p>	<p><u>On site Recycling:</u> Ferrous scrap metals are supplied by a number of external suppliers and vendors, delivered to the reclamation facility by truck and/or bakkie loads. The scrap metal received is visually inspected to remove any other waste material that will not be recycled as part of the process. Such materials are designated as unwanted, and are disposed of by the service provider and/or vendor which supplied the scrap metal in the first instance. The scrap metal is weighed at a weighbridge (situated at the entrance of the site) or platform/bench scale for small weight items. Ferrous metals are once weighed, sorted into (a) steel, (b) sub-grade material, and (c) cast iron. (Please note that in many instances an external supplier will deliver ferrous scrap metal as steel, sub-grade material or cast-iron. The cast-iron is once separated, stockpiled on a surface with secondary containment, as recycled material for collection by clients.</p>		
<p>Non-ferrous scrap metal</p>	<p>External scrap metal suppliers and vendors</p>	<p>200 t</p>	<p><u>On site Recycling:</u> Non-ferrous scrap metals are supplied by a number of external suppliers and vendors, delivered to the reclamation facility by truck and/or bakkie loads. The scrap metal received is visually inspected, to remove any other waste material that will not be recycled as part of the process. Such materials are designated as unwanted, and are disposed of by the service provider and/or vendor which supplied the scrap metal in the first instance. The scrap metal is weighed at a weighbridge (situated at the entrance of the site) or platform/bench scale for small weight items. Non-ferrous scrap metals, once weighed are visually sorted into different classes at an enclosed waste management facility with secondary containment. The non-ferrous metal is as with the ferrous metal waste stream, visually inspected to remove any other waste material that will not be recycled in the process. Such materials are temporarily stored at a designated waste storage area and/or facility until disposed of by a service provider. The non-ferrous metals are once sorted temporarily stored, at an enclosed storage facility until collected by trucks and transported to clients.</p>		



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SECTION 6: GENERAL

Prevailing wind direction (e.g. NWW)
November - April

May - October

Attached as Annexure G
Attached as Annexure G

The size of population to be served by the facility

	Mark with "X"	Comment
0-499		
500-9,999	X	Ferrous and Non-ferrous scrap metal is received for recycling by a number of external suppliers and vendors. Scrap metals is received by specific suppliers (ferrous and non-ferrous scrap metals produced as a waste material through their operations) or from numerous supplies from the broader public.
10,000-199,999		
200,000 upwards		

Indicate the geological formations underlying the site:

Granite
Shale
Sandstone

-
-
-

Quartzite
Dolomite
Dolerite

-
-
-

Other _____

SECTION 7: COMPETENCE TO OPERATE SITE

It is imperative that the holder of the waste license is a fit person in terms of section 59 of the NEMWA (59 of 2008). To assess the holder's competence to operate the site, please disclose the following:

Legal compliance

YES/NO	DETAILS
NO	
NO	
NO	

NB: Details required above include any information that the applicant wants the Department to take into consideration in determining whether they are a "fit person" and this includes reasons why the offence happened and measures in place to prevent recurrence

Technical competence

What technical skills are required to operate the site?

The developer has the necessary knowledge, qualifications and skills to operate the site as they are already in business.

How will the applicant ensure and maintain technical competency in the operation of the site?

As mentioned above the applicant is already in business and consists of all the necessary expertise required in the specific field of work. Therefore the competence level will be of high quality as this is not unknown and a new field to them. Technical competence will be retained through the appointment of suitably qualified and competent personnel.

Details of applicant's experience and qualification along with that of relevant employees must be summarised as shown in the table below:

(Please note that the information pertaining to the applicant's experience, along with relevant employees, was not available at this stage and will be addressed in the Basic Assessment Report compiled for this application)

NAME	POSITION	DUTIES AND RESPONSIBILITIES	QUALIFICATIONS AND EXPERIENCE

Financial Provisions

Provide a plan of estimated expenditure for the following:

	ATTACHED/NOT ATTACHED	SECTION OF THE REPORT WHERE IT IS ATTACHED
Environmental Monitoring	Not Attached	To be confirmed during the BA Process
Provision and replacement of Infrastructure	Not Attached	To be confirmed during the BA Process
Restoration and aftercare	Not Attached	To be confirmed during the BA Process

SECTION 8: LANDFILL PARAMETERS

The method of disposal of waste:

Land-building Land-filling Both

The dimensions of the disposal site in metres

	At commencement	After rehabilitation
Height/Depth		
Length		
Breadth		

The total volume available for the disposal of waste on the site:

Volume Available	Mark with "X"	Source of Information (Determined by surveyor/ Estimated)
Up to 99		
100-34 999		
35 000- 3,5 million		
>3,5 million		

Indicate the total volume already used for waste disposal:

(a) Will the waste body be covered daily	<input type="checkbox"/> YES	<input type="checkbox"/> NO
(b) Is sufficient cover material available	<input type="checkbox"/> YES	<input type="checkbox"/> NO
(c) What waste cover material will be used and where will it be sourced		
(d) Will waste be compacted daily	<input type="checkbox"/> YES	<input type="checkbox"/> NO

If the answers (a) and/or (b) are No, what measures will be employed to prevent the problems of burning or smouldering of waste and the generation of nuisance?

The salvage method to be employed (Mark with an "X")

At source	
Recycling installation	
Formal salvaging	
Contractor	
No salvaging planned	

Fatal Flaws for the site:

Indicate which of the following apply to the facility for a waste management activity:

- Within a 3000 m radius of the end of an airport landing strip
- Within the 1 in 50 year flood line of any watercourse
- Within an unstable area (fault zone, seismic zone, dolomitic area, sinkholes)
- Within the drainage area or within 5 km of water source
- Within an area with shallow and/or visible water table
- Within an area adjacent to or above an aquifer
- Within an area with shallow bedrock and limited available cover material
- Within 100 m of the source of surface water
- Within 1 km from the wetland
- Indicate the distance to the boundary of the nearest residential area
- Indicate the distance to the boundary of the industrial area

YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
metres	
metres	

SECTION 9

9.1 DECLARATIONS

The Applicant

I, Pieter CRISZAU Human, declare that I -

- am¹, the applicant in this application for "N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility"
- have appointed an environmental assessment practitioner to act as the independent environmental assessment practitioner for this application;
- will provide the environmental assessment practitioner and the competent authority with access to all information at my disposal that is relevant to the application;
- will be responsible for the costs incurred in complying with the Environmental Impact Assessment Regulations, 2010, including but not limited to -
 - costs incurred in connection with the appointment of the environmental assessment practitioner or any person contracted by the environmental assessment practitioner;
 - costs incurred in respect of the undertaking of any process required in terms of the Regulations;
 - costs in respect of any fee prescribed by the Minister or MEC in respect of the Regulations;
 - costs in respect of specialist reviews, if the competent authority decides to recover costs; and
 - the provision of security to ensure compliance with conditions attached to an environmental authorisation, should it be required by the competent authority;
- will ensure that the environmental assessment practitioner is competent to comply with the requirements of these Regulations and will take reasonable steps to verify whether the EAP complies with the Regulations;
- will inform all registered interested and affected parties of any suspension of the application as well as of any decisions taken by the competent authority in this regard;
- am responsible for complying with the conditions of any environmental authorisation issued by the competent authority;
- hereby indemnify the Government of the Republic, the competent authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action which the applicant or environmental assessment practitioner is responsible for in terms of these Regulations;
- will not hold the competent authority responsible for any costs that may be incurred by the applicant in proceeding with an activity prior to obtaining an environmental authorisation or prior to an appeal being decided in terms of these Regulations;
- will perform all other obligations as expected from an applicant in terms of the Regulations;
- all the particulars furnished by me in this form are true and correct; and
- I am aware that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

Signature of the applicant

N.N. Metals Pty Ltd

Name of company (if applicable):

04/06/2012

Date:

Signature of the Commissioner of Oaths:

Date:

Designation:

Commissioner of Oaths Official stamp (below)

GESERTIFIEERDE WARE AFSKRIF
VAN DIE OORSPRONKLIKE
CERTIFIED A TRUE COPY OF THE ORIGINAL

AR SWART
Commissioner of Oaths/Kommissaris van Ede
Professionele Rekenmeester (SAIPA). Lid no : 8140
Chris Hougaardstr 262, Wierdapark, 0149

¹ If this is signed on behalf of the applicant, proof of such authority from the applicant must be attached.

ADDENDUM A:

9.2 DECLARATIONS⁴

The Environmental Assessment Practitioner:

- I, Lizelle Gregory declare under oath that I –
- I act as the independent environmental practitioner for this application
 - I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
 - I declare that there are no circumstances that may compromise my objectivity in performing such work;
 - I have expertise in conducting environmental impact assessments, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
 - I will comply with the Act, regulations and all other applicable legislation;
 - I will take into account, to the extent possible, the matters listed in regulation 8 of the regulations when preparing the application and any report relating to the application;
 - I have no, and will not engage in, conflicting interests in the undertaking of the activity;
 - I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
 - I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
 - I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
 - I will keep a register of all interested and affected parties that participated in a public participation process; and
 - I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
 - all the particulars furnished by me in this form are true and correct;
 - will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
 - I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

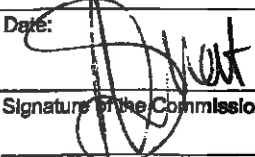
For Basic Assessment applications I further declare under oath that:

- I will fix the site notice(s) in a conspicuous place, on the property(ies) where it is intended to undertake the activity(ies)
- I will place a notice in the required newspaper(s)
- I will provide the following with all the project information and give I&AP's an opportunity to register as an I&AP
 - o landowners and occupiers of adjacent land
 - o landowners and occupiers of land within 100 metres of the boundary of the property
 - o the ward councillor
 - o any organisation that represents the community in the area of the application
 - o the municipality which has jurisdiction over the area in which the proposed activity will be undertaken
 - o any organ of state that may have jurisdiction over any aspect of the activity of the applicant's intention to submit an application to the competent authority; and
- I will include on the register all persons as required per Regulation 55 (1) (c)
- The Reports as submitted will contain the same information (including layout, project design and mitigation) as provided to the registered I&APs for comment
- All issues raised by the I&APs during the public participation process will be included in the Comments and Response Report as attached


 Signature of the Environmental Assessment Practitioner:

Bokamoso Landscape Architects and
 Name of company: Environmental Consultants

Date: 04/06/2012


 Signature of the Commissioner of Oaths:

⁴ Addendum A must be completed and submitted with the report if application form was done and submitted by the applicant.



APPLICATION FORM [REGULATION 12]

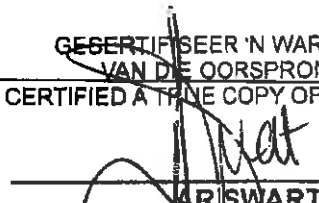
Date:

4/6/2012

Designation:

Commissioner of Oaths Official stamp (below)

GESERTIFISEER 'N WARE AFSKRIF
VAN DIE OORSPRONKLIKE
CERTIFIED A TRUE COPY OF THE ORIGINAL


J. SWART
Commissioner of Oaths/Kommissaris van Ede
Professionele Rekenmeester (SAIPA), Lid no : 8140
Chris Hougaardstr 262, Wierdapark, 0149

11. CHECKLIST

To ensure that all information that the Department needs to be able to process this application, please check that:

- > Where requested, supporting documentation has been attached;
- > All relevant sections of the form have been completed; and
- > The form has been signed by the applicant, by the EAP or both.



IMPORTANT NOTE:

This information must be included in the reports to be submitted to the Department

APPENDIX: A1

Information needed when applying for scheduled activities listed under Category A, but is not limited thereto:

- Basic Assessment Report which must include supplementing documentation such as:
 - Description of the environment that may be affected by the proposed activity and the manner in which the geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity
 - Description of significant environmental impacts, including cumulative impacts, that may occur as a result of the undertaking of the activity
 - Conducting public participation as outlined in the EIA Regulations
 - Waste disposal facility designs
 - Closure plan (report)
 - Operational plan
 - All applicable legislation, policies and/or guidelines
 - End-use plan (only apply to site landfill closure)
 - Closure/Remedial designs (only apply to the landfill closure)
 - Latest external audit report (only apply for permit amendment)
 - Application and report documents (four hard copies for all applications)
 - A3 size layout plans (four hard copies for all applications)
 - Landfill conceptual designs (only apply for construction and decommissioning of landfill sites)
 - Geo-hydrological report (only apply to landfill sites, storage facilities and treatment of waste)
 - Consideration of alternatives
 - Description of mitigation measures and risk assessment
 - Any inputs made by specialists to the extent that may be necessary
 - Any specific information as may be required by the competent authority

Information needed when applying for scheduled activities listed under Category B, but is not limited thereto:

- Scoping and Environmental Impact Assessment Report which should include:
 - Description of the environment that may be affected by the proposed activity and the manner in which the geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity
 - Description of significant environmental impacts, including cumulative impacts, that may occur as a result of the undertaking of the activity
 - Conducting public participation as outlined in the EIA Regulations
 - Closure plan (report)
 - Operational plan
 - Waste disposal facility designs
 - End-use plan (only apply to site closure)
 - Closure/Remedial designs (only apply to site closure)
 - Latest external audit report (only apply to permit amendment)
 - Application and report documents (four hard copies for all applications)
 - A3 size layout plans (four hard copies for all applications)
 - Landfill conceptual designs
 - Geo-hydrological report (only apply to landfill sites, storage and treatment of waste)
 - Consideration of alternatives
 - Description of mitigation measures and risk assessment
 - Any inputs made by specialists to the extent that may be necessary
 - Any specific information as may be required by the competent authority
- Plan of study for environmental impact assessment which must among others include:
 - Description of the tasks to be undertaken as part of the environmental impact assessment process, including specialist report or specialized processes, and a manner in which such tasks will be undertaken
 - An indication of stages of stages at which the competent authority will be consulted
 - Description of methods for assessing issues and alternatives, including the no-go alternative
 - Particulars of participation process that will be conducted during the EIA process
- NB: Compilation of EIA report must be based on tasks outlined in the Plan of Study for EIA, and the below listed reports must also be attached.
 - Draft environmental management plan (only apply to EIA Reports. No draft EMP should be included in the Scoping Report)
 - Copies of any specialist reports and specialized processes (only apply to EIA Reports. No copies of specialist studies and specialized processes should be included in the Scoping Report)

APPLICATION FORM [REGULATION 12]

APPENDIX B1

The following **MUST** be included in the application as supporting documentation and the applicant must indicate specific section(s) where they are appended in the reports.

REQUIRED PIECE OF INFORMATION	SECTION IN THE REPORTS WHERE IT CAN BE FOUND	COMMENTS (if any)
1. Extremely clear Google Earth colour picture of the site (dated not more than a month from the date of the application)		
2. 1:50 000 topography / topocadastral map of the area showing		
2.1 the site and 5 km radius		
2.2 Existing residential and industrial areas		
2.3 Possible future development (indicate the type of development)		
2.4 Other waste handling sites (existing or closed) in the area		
2.5 Existing and possible future residential areas.		
2.7 Sites which are listed as national monuments or archaeological, paleontological and cultural historical sites or objects worthy of conservation;		
3. Security and access aspects of the site		
4. The site plan drawn to scale showing the site's boundary showing:		
4.1 Activities or development existing on all 4 directions of the site.		
4.2 Waste receipt, storage and handling areas		
4.3 Impermeable surfaces		
4.4 Sealed drainage systems		
4.5 Drainage system for the site including sumps and discharge points		
4.6 Road names and access from all major roads in the area		
4.7 Land Owner's consent (letter with signature)		
5. Waste hierarchy implementation plan		

APPLICATION FORM [REGULATION 12]

APPENDIX B2

The following **MUST** be included in the application documentation for landfill sites and the applicant must indicate specific section(s) where they are appended in the reports.

REQUIRED PIECE OF INFORMATION	SECTION IN THE REPORTS WHERE IT CAN BE FOUND	COORDINATE #
Design for site roads		
The 1 in 50 year flood-line of all watercourses		
Laboratory facilities		
Design and location of fuel storage areas		
Design and location waste quarantine areas		
Design and location of waste inspection areas		
Site's drainage system		
Site's emergency control system and plan		
Liner specifications		
Leak detection system and monitoring		
Leachate management plan		
Calculations of leachate generation		
Leachate collection and treatment		
Gas generation and management		
Air quality monitoring and management		
Co-disposal ratio calculation		
Stability monitoring and management		
Daily and intermediate cover requirements		
Temporary and permanent capping requirements		

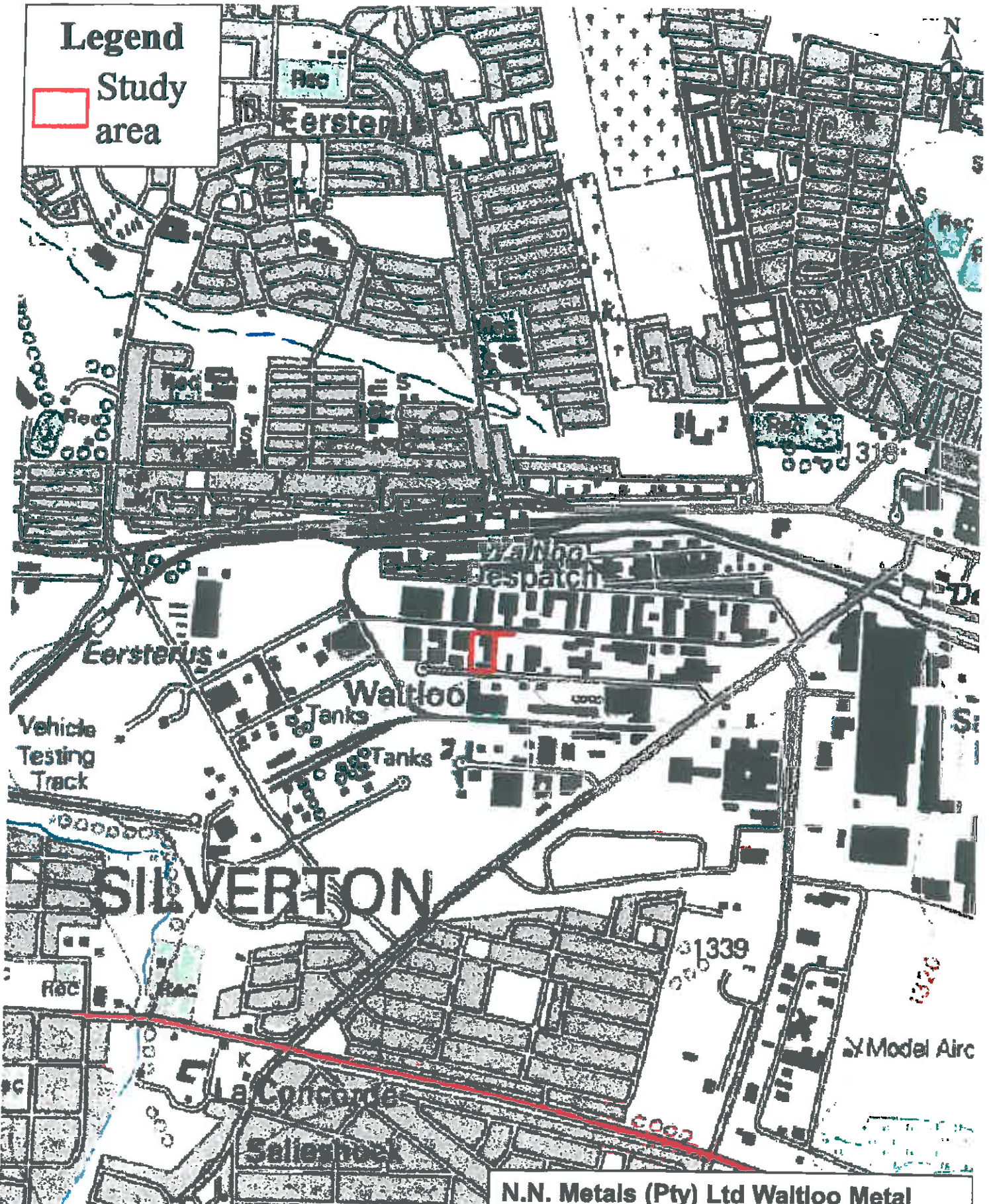
Annexure A

Locality/Aerial Map

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Legend

 Study area



Scale 1:18020



N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility- Figure 1: Locality Map



 Study area

N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility- Figure 2: Aerial Map



Annexure B

Not Applicable

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Annexure C

**List of Organs of State/State
Departments where the Draft BAR
Report will be submitted**



**Gauteng Department of Agriculture and Rural
Development (GDARD)**

**Administrative Unit of the Sustainable Utilisation of the Environment
(SUE) Branch**

Gauteng Department of Agriculture and Rural Development

Waste Management Directorate

18th floor Glen Cairn Building

73 Market Street, Johannesburg

P.O. Box 8769

Johannesburg

2000

Contact Person: Lindo Vilakazi

Tel: (011) 355 1354

E-Mail: lindokuhle.vilakazi@gauteng.gov.za

City of Tshwane (CoT)

Environmental Management Division

Contact Person: Ms. Rudzani Mukheli

P.O. Box 1454

Pretoria

0001

Tel: (012) 358 8731

Fax: (012) 358 8934

E-Mail: rudzanim@tshwane.gov.za

Department of Water Affairs (DWA)

Office of the Regional Director: Gauteng

Bothongo Plaza East

285 Schoeman Street

Pretoria

Tel: (012) 392 1479

Fax: (012) 392 1359

E-Mail: PhochanaS@dwa.gov.za



Annexure D

**Property Description List
Not Attached**

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Annexure E

**Current land-use zoning
Current land-use zoning not
attached**

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Annexure F

**Diagrammatical illustration of the
process description**

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1. Inputs

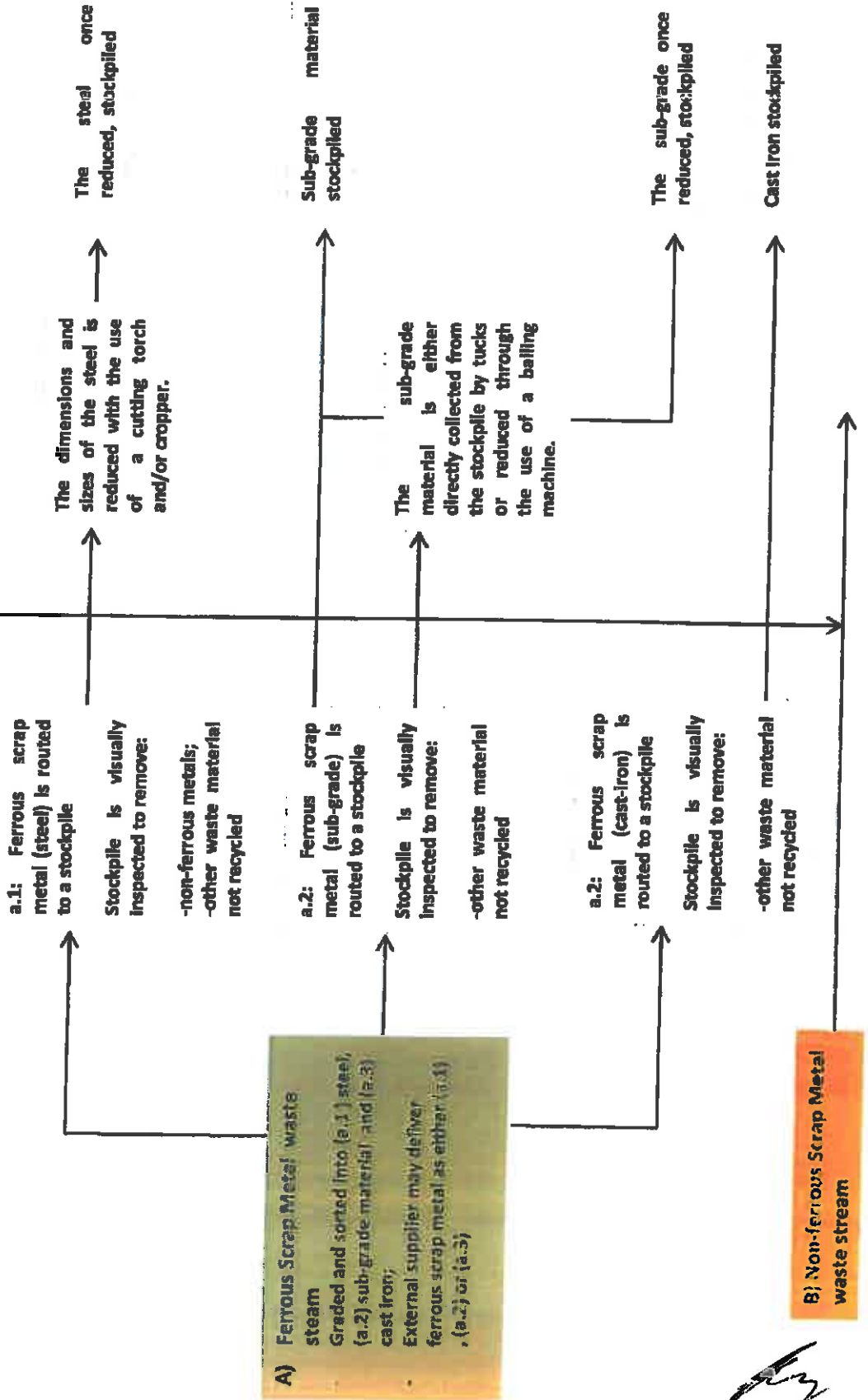
- Input material received;
- Input material weighed;



2. Process

- Ferrous Scrap Metal waste stream

Waste materials not recycled are temporarily stored at a designated waste storage facility



3. Process

- Non-ferrous Scrap Metal waste stream

Waste materials not recycled are temporarily stored at a designated waste storage facility

The non-ferrous metals, once weighed are visually inspected and sorted in an enclosed waste management facility on site to create the following non-ferrous metal waste streams:

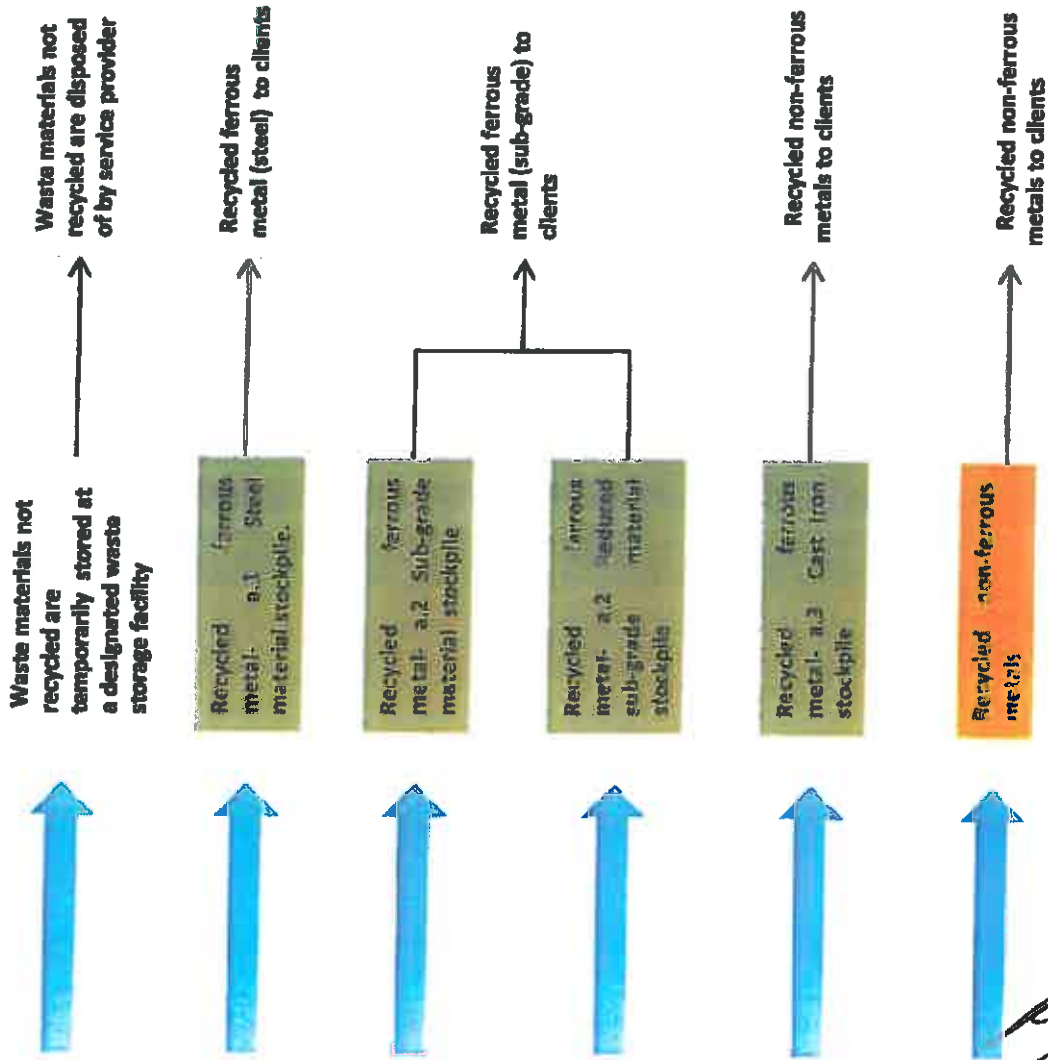
- Aluminium;
- Brass;
- Copper;
- Lead;
- Stainless steel etc.

B) Non-ferrous Scrap Metal waste stream
Non-ferrous metals are supplied by external suppliers, vendors and weighed

The non-ferrous metals once visually inspected and sorted, are temporarily stored at the enclosed waste management facility until collected by trucks and transported to clients.

The non-ferrous scrap metal is visually inspected to remove waste material that will not be recycled in the process.

3. Outputs



Annexure G

Prevailing Wind Direction(s)


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Prevailing Wind Directions (Pretoria/Swartkop)

Statistics based on observations taken between 05/2010-04/2012 daily from 7am to 7pm local time

Month of the Year

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	SUM
01	02	03	04	05	06	07	08	09	10	11	12	1-12
WNW	SSW	W	W	NNW	SW	SW	SSW	SW	SW	SSW	OSO	SW



Addendum A

October
2013

Draft Waste Management Plan (WMP) for the Proposed N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility

Ref nr: GAUT 002/12-13/W0004

BOKAMOSO
LANDSCAPE ARCHITECTS &
ENVIRONMENTAL CONSULTANTS CC
P.O. BOX 11375
MARGELANA
0161

TEL: (012) 346 3810
Fax: 086 570 5659
Email: lizeleg@mweb.co.za



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2.	WMP Objectives and Context	3
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LIST OF FIGURES:

Figure 1: Locality Map

Figure 2: Aerial Map

LIST OF TABLES:

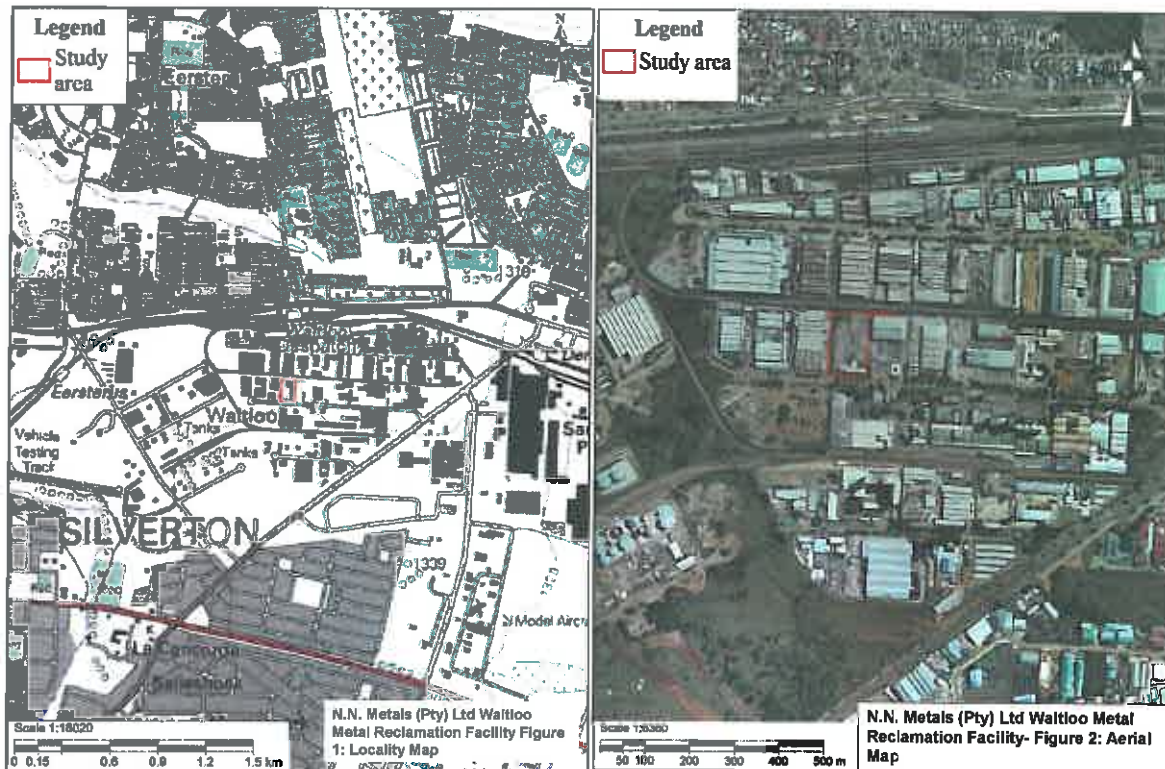
Table 1: Mitigation measures and guidelines for Waste Management

1. Project Outline

Bokamoso Landscape Architects & Environmental Consultants were appointed as independent environmental consultants/ Environmental Assessment Practitioner (EAP) to facilitate the application process for Environmental Authorisation (EA)/Waste Management License (here after referred to as a WML) for the proposed **N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility (MRF)** in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEMWA) and the 2010 Environmental Impact Assessment (EIA) Regulations.

N. N. Metals (Pty) Ltd is a prominent and well-known dealer of ferrous and non-ferrous metals and their metal reclamation facilities services a considerable number of scrap metal suppliers, dealers and vendors in the broader Pretoria, Brits and Phalaborwa area. N.N. Metals (Pty) Ltd is operating an existing metal reclamation facility in the in Koedoespoort, Silverton, but it is their intension to relocate the said facility to a property in Waitloo, which is currently owned by the applicant. Thus, in order to ensure compliance with the Waste Act, an application for a new WML was compiled and submitted to approving authority, the Gauteng Department of Agriculture and Rural Development (GDARD) on 04/06/2012. The proposed Metal Reclamation Facility is to be established on the remaining extent of erf 110, Waitloo Township, Registration Division: JR., Gauteng Province, and measures approximately 1, 2328 hectares in extent. **(Please refer to Figure 1-Locality Map and Figure 2-Aerial Map)**

The property is located within an existing industrial note, and is at present in a developed and transformed state, with some existing buildings (on its southern extent) and scattered trees bordering the site on its western and south-eastern boundary. A small portion of open space, and railway line furthermore separate the site from the properties to its north.



In terms of the Waste License application it is required to submit a Waste Management Plan (hereafter referred to as the WMP). The purpose of this WMP is to ensure that all waste material generated at the Metal Reclamation Facility is correctly sorted, stored, handled and where possible recycled or otherwise disposed of in accordance with legislative requirements, SHEQ policy and objectives and targets. The plan was also compiled to act as guideline document for many years, even if Waste Control Officer and Operational Manager are replaced.

Waste Management, especially with the goal to reduce, recycle and monitor waste forms an important part of this Metal Reclamation Facility and the purpose of this WMP are to ensure that all the waste related components are sufficiently addressed.

The WMP will be a binding document for purposes of compliance with the legislative framework.

2. WMP Objectives and Context

2.1 Objectives and Principles

The primary objective of this Waste Management Plan (WMP) is to promote the minimization of waste and to ensure that all waste materials generated during the operational phase of the Metal Reclamation Facility is correctly sorted, stored, handled, transported, disposed of, monitored and where possible, recycled in accordance with the International, National, Provincial and Local legislative requirements.

The ongoing implementation of the above mentioned WMP will integrate and optimize sustainable waste management and waste recycling principles in order to maximize efficiency and minimize the associated environmental impacts and financial costs of waste and to improve the quality of life of all South Africans.

This WMP has been compiled to promote (amongst others) the following sustainable waste management principles:

- waste prevention;
- cleaner production;
- waste minimization;
- re-use;
- recycling;
- waste treatment; and
- disposal (as a last resort)

It is important that any plan, once implemented, is evaluated and where necessary reviewed to ensure that the respective objectives are being met. Furthermore, it is important to share success stories achieved through additional initiatives and to identify problem areas associated with the existing WMP.

2.2 WMP context

Waste management during the design and construction phases of a development differ significantly from waste management during the operational phase.

Waste management during the construction phase requires temporary measures, it involves less parties, it must aim to set short terms goals that will have immediate positive effects and it ends when the construction of a facility is completed. Waste management and recycling during the operational phase is an ongoing activity that should strive (on a continuous basis) to achieve the short and long term goals and objectives as listed in this management plan. This plan should be regarded as a dynamic plan, which should not only take new and improved technology and success stories into consideration, but it should also be updated and amended to eliminate ineffective measures and to incorporate the ever changing legislation, policies, guidelines, by-laws etc. on an international, national, provincial and local level.

Chapter 5 of this management plan contains the specific management plans and actions for the design/construction and operational phases of the development. If it is not possible for any of the parties subject to this management plan to comply with any of the measures or actions as set out in these plans, such parties must immediately notify the Waste Control Officer (WCO)/Operational Manager and propose alternative measures that will accomplish similar or improved outcomes. The WCO/Operational Manager must approve the alternative measures (in writing) and the party must keep record of this approval granted.

3. Waste Control Officer

An independent Waste Control Officer (WCO) shall be appointed by the applicant to ensure compliance with the requirements of this WMP.

Responsibilities of the WCO

- The WCO must keep himself/ herself updated (on a continuous basis) with the current and future environmental and other related legislation (i.e. legislation that governs pollution i.e. the National Water Act, the National Environmental: Air Quality Act etc.) legislation, policies, guidelines, by-laws and must identify new legislation, policies and guidelines to comply with and to take into consideration (for all development phases) during the implementation of this plan;
- If additional authorization processes, licenses or permits are required for waste related activities and practices as stipulated in this plan, the WCO must immediately inform the involved party as well as the applicant;
- The Waste Control Officer shall promote sustainable development and sustainable waste management practices;
- The WCO shall ensure that all the parties subject to compliance with the WMP are fully aware of contents of this plan and must encourage (on a continuous basis) individual or joint initiatives that will promote the following principles:
 - ~ waste prevention;
 - ~ cleaner production;
 - ~ waste minimization;
 - ~ re-use;
 - ~ recycling;
 - ~ waste treatment; and
 - ~ disposal (as a last resort)
- The WCO shall establish a communication mechanism/tool through which important waste related information (i.e. legislative guidelines, monitoring methods and intervals, new initiatives etc., success stories, waste management awareness and education) can be communicated to all parties involved.

During the Operational phase such information can be shared with the Manager/Applicant during monthly management meetings. It will however be difficult to share important news and other information with the other parties involved during such a meeting and therefore it is recommended that the WCO establish another communication tool that will reach all sectors involved.

- Any waste related damage to the environment must be repaired as soon as possible after consultation between the Environmental Assessment Practitioner, the Waste Control Officer, the Applicant, the Manager and any other external or internal party involved;
- The Waste Control Officer shall ensure that the all the relevant parties adhere to all the stipulations of the WMP during all the development phases (design, construction and operational);
- The Waste Control Officer shall be responsible for the monitoring the WMP throughout all the project phases by means of site visits and meetings. This should be documented as part of meeting minutes and monthly monitoring report must be compiled and distributed to the relevant parties for perusal and response. During the operational phases WCO reports must be compiled on a quarterly basis and records of such reports must be kept at the office at the Reclamation Facility. The reports must also be compiled to confirm whether objectives as set in this plan have been achieved/ is in the process of being achieved;
- The Waste Control Officer shall be responsible for environmental training programmes during any phase of the project;
- The WCO shall be responsible for the appointment of external waste removal, recycling and management contractors. The WCO must ensure that the selected waste contractor is registered at the relevant regulating waste management organizations and the waste management principles of the contractor must be in line with the principles as set out in this plan.

4. **Legislative Framework**

In the past, waste management was not thoroughly addressed through International and South-African treaties, conventions, legislation, policies, by-laws, guidelines or environmental management tools.

On a National, Provincial and Local Level

The following environmental legislation should be taken into consideration during the planning and execution of waste management activities and processes:

- The Constitution of the Republic of South-Africa, Act No. 108 of 1996 Section 24, 33, Schedule 4 Part 8, Schedule 5: Part B, and Section 156(1);
- The National Environmental Management Act (NEMA), Act No. 107 of 1998 with specific reference to the principles of NEMA;
- Hazardous Substances Act, Act 15 of 1973;
- The National Water Act, Act 36 of 1998 (Sections 19 and 21);
- National Environmental Management: Air quality Act, Act 39 of 2004;
- The National Road Traffic Act, Act No. 93 of 1996;
- The Nuclear Energy Act, Act No. 46 of 1999;
- Schedule 2 of The Atmospheric Pollution Prevention Act, Act No. 44 of 1965 must be regarded as listed activities until the new listed activities in terms of Schedule 21 of the Air Quality Act came into effect;
- The National Environmental Management: Waste Act, Act 59 of 2008;
- The "Draft Waste Classification and Management Regulations", March 2010; and
- "The Minimum Requirements for Waste Disposal", Second Edition 1998.

General Background:

Until 1 July 2009, the Environmental Conservation Act, Act 73 of 1989 (ECA) was the primary waste legislation. The national Department of Water Affairs and Forestry (the DWAF) has, by virtue of its powers in terms of ECA, and more specifically in terms of Section 20 thereof, issued and published a detailed prescriptive document, applicable to all waste disposal sites containing the minimum requirements which had to be adhered to by in respect of all new and operating sites as a prerequisite for the issue of permits in respect of such sites. The applicable document is named "The Minimum Requirements for Waste Disposal", Second Edition 1998. This document supplies definitions for "waste disposal sites", "general waste" and "waste".

According to law experts, the exclusion of a definition for waste in the NEMA Regulations is one of the main shortcomings of the Act, because it makes it very difficult for parties to determine whether their specific product or process are actually regarded as waste or regarded as a listed process in terms of NEMA.

This problem has however been resolved when the National Environmental Management: Waste Act, 2008, which must be read together with NEMA came into effect on 1 July 2009, because this Act now has comprehensive definitions for "waste" and "general waste". **Refer to Inserts from the Definitions as supplied in the Waste Act below**

- the environment;
- "Gazette", when used in relation to—
- (a) the Minister, means the *Government Gazette*; and
 - (b) the MEC, means the *Provincial Gazette* of the province concerned; 45
- "general waste" means waste that does not pose an immediate hazard or threat to health or to the environment, and includes—
- (a) domestic waste;
 - (b) building and demolition waste;
 - (c) business waste; and 50
 - (d) inert waste;
- "hazardous waste" means any waste that contains organic or inorganic elements or compounds that may, owing to the inherent physical, chemical or toxicological

or disposal:

“waste” means any substance, whether or not that substance can be reduced, re-used, recycled and recovered—

- (a) that is surplus, unwanted, rejected, discarded, abandoned or disposed of; 30
- (b) which the generator has no further use of for the purposes of production;
- (c) that must be treated or disposed of; or
- (d) that is identified as a waste by the Minister by notice in the *Gazette*, and includes waste generated by the mining, medical or other sector, but — 35
 - (i) a by-product is not considered waste; and
 - (ii) any portion of waste, once re-used, recycled and recovered, ceases to be waste;

“waste disposal facility” means any site or premise used for the accumulation of waste with the purpose of disposing of that waste at that site or on that premise;

“waste management activity” means any activity listed in Schedule 1 or 40

The above mentioned Acts must also be read together with the aforementioned “Minimum Requirements for Waste Disposal”, Second Edition 1998; because the relevant authorities regard the minimum requirements as a guidelines document when evaluating waste related Basic Assessments, EIA Applications and license applications. Copies of the relevant sections of the above mentioned Acts and requirements have been included as Annexure A of this document.

According to the Waste Act only activities associated with hazardous waste above certain quantities require that a full EIA process be followed. Non-hazardous waste activities only require that a Basic Assessment process be followed and if a waste related activity triggers Activities listed in the NEMA Regulations as well as in the Waste Act, the Waste Act overrules similar activities as listed in the NEMA Regulations and the Waste Act then determines the type of EIA process (Basic Assessment Process or Full EIA Process) to be followed. The Waste Act also requires that the relevant authorities issue waste licenses for activities as listed in Schedule 1 and 2 of the Act and it is therefore important to submit such Waste License Application as part of the Basic Assessment or EIA Application.

Another document that must be taken into consideration is the “Draft Waste Classification and Management Regulations” which has been compiled (in terms of Section 69(1) (a-ee) of the National Environmental Management: Waste Act

(NEMWA). The following are specifically relevant to the content of the draft and final regulations:

- The identification and categorization of waste;
- The manner in which particular waste types must be dealt with and managed;
- Measures that are required for the environmentally sound management of waste;
- The utilization of waste by way of recovery, re-use and recycling;
- The control over waste management facilities;
- Labeling requirements in respect of waste management;
- The location, planning and design of waste management activities;
- Any matter that may or must be prescribed in terms of the Act; and
- Any other administrative procedural matter that is necessary for the proper administration and implementation of this Act.

In addition to the provisions of Section 69, Section 7 of NEMWA includes several provisions related to national Norms and Standards:

In terms of Section 7(1) the Minister must by notice set national norms and standards for the:

- Classification of waste;
- Planning for and provision of waste management services; and
- Storage, treatment and disposal of waste, including the planning and operation of waste treatment and waste disposal facilities.

In terms of Section 7 (2) the Minister may, by notice in the Gazette, set national Norms and standards for:

- The administration, re-use, re-cycling and recovery of waste, including the separation of waste at the point of generation.

The National department of Environmental Affairs intends to formalize the revised waste classification system into regulations under the National Environmental

Management: Waste Act (NEMWA) with associated Schedules and/or norms and Standards in terms of the Act as appropriate or required.

5. Waste Classification

In order to formalise the characterisation and separation of waste at source, it is essential that waste generated and managed the Metal reclamation Facility (MRF) be formally classified according to the provisions of the waste classification system as per National Waste Management Strategy (NWMS). Waste is categorised/classified as either General or Hazardous waste, which in turn can be categorised according to their source into domestic, commercial and industrial (Department of Environmental Affairs and Tourism, 2000).

General Waste

NEMWA refers to general waste as *"Waste that does not pose an immediate hazard or threat to health or the environment, and includes (a) domestic waste; (b) building and demolition waste; (c) business waste; (d) inert waste"*. General waste can in turn be sub-divided into paper, metals, glass, plastics, organic and inert wastes as per the NWMS.

Hazardous Waste

Hazardous waste is in terms of NEMWA waste which *"owing to its inherent physical, chemical or toxicological characteristics"* has a detrimental impact on human health and the environment. Hazardous waste is subsequently categorised according nine different classes which is designated as hazard ratings in terms of the Department of Water Affairs and Forestry (DWAF) Minimum Requirements for the handling, Classification and Disposal of Hazardous Waste (Department of Environmental Affairs and Tourism, 2000).

6. Waste Management Plan

All principles of the Waste Hierarchy Implementation Plan (WHIP) are applicable and needs to be implemented for the Waste Management Plan for the Metal Reclamation Facility. Measures will be applied to ensure optimal reuse and recycling of materials. It is important to note that for the Metal Reclamation Facility the meaning of waste is different than for most other developments or facilities. In this case, it is a commodity as they are reusing and recycling all metal waste.

6.1 Operational Phase Recycling and Waste Minimization

During the Operational phase of the Metal Reclamation Facility recycles ferrous and non-ferrous metals, which is sold as a product or raw material for further use. The input material is ferrous and non-ferrous scrap metal. This ferrous and non-ferrous scrap metal is supplied by a number of external suppliers and vendors delivered to the operation by truck and/or bakkie loads (please note that an external supplier will specifically deliver either non-ferrous metals or ferrous metals, or both, but however separated, thus creating two waste streams). The scrap metal is weighed at a weighbridge on site. After weighing of the scrap metal received, it is visually inspected to remove any other waste material that will not be recycled in the process. Such materials are designated as unwanted and temporary stored on site until appropriately disposed of by a service provider.

Ferrous scrap metal waste stream:

Ferrous metals are able to be recycled, with steel the most recycled material in the world. Ferrous metals contain an appreciable percentage of iron and the addition of carbon and other substances creates steel. The most commonly recycled items are containers, cans, structural steel, parts of motor vehicles,

household appliances etc. Ferrous metals are once weighed, graded and sorted into (a) steel and (b) sub-grade material, and routed to different stockpiles at the facility. Please note that in many instances an external supplier may deliver ferrous scrap metals as steel, or sub-grade material, prior to being weighed. The stockpiles of steel and sub-grade material are in addition visually inspected to separate and remove any (1) non-ferrous metals or (2) other waste material which remained behind in the graded stockpiles.

Ferrous scrap metal waste stream: Steel Material

Once separated from the sub-grade material, the dimensions and sizes of the steel is reduced with the use of a blow torch and/or grinder. The steel material is essentially reduced to enable the enhanced handling, loading and transportation thereof. The steel once reduced, are stockpiled as recycled material, collected by trucks and transported to clients.

Ferrous scrap metal waste stream: Sub-grade material

The sub-grade material is directly collected from the stockpiles by trucks or otherwise reduced through the use of a compressor.

Ferrous scrap metal waste stream: Cast Iron

The cast iron is directly collected from the stockpiles by trucks and transported to clients.

Non-ferrous scrap metal waste stream:

A non-ferrous metal that is non-ferrous is any metal including alloys that does not contain iron in appreciable amounts. Non-ferrous metals are generally more expensive due to its desirable properties such as low weight, higher conductivity, non-magnetic property, or resistance to corrosion. Some important non-ferrous

metals include aluminium, copper and the alloy brass, lead, nickel, tin and titanium.

Non-ferrous metals are supplied by external suppliers and vendors. Non-ferrous metals, once weighed are visually sorted, and graded at an enclosed waste management facility. The non-ferrous scrap metal is as with the ferrous metal waste stream visually inspected to remove and other waste material that will not be recycled in the process. Such materials are temporary stored on site at a designated waste storage area and/or facility until disposed of by a service provider. The non-ferrous metals are once sorted and graded, temporarily stored at the enclosed waste management facility until collected by trucks and transported to clients.

6.2 Establishment of a Successful Recycling Programme

The following steps should be followed for the establishment of a successful recycling program:

- Appoint a Waste Control Officer to act as recycling coordinator;
- Identify materials to be collected;
- Identify waste collection points within the waste streams;
- Determine waste sorting methods;
- Determine collection programme logistics;
- Implement and manage waste reduction and recycling plan; and
- Monitor, evaluate and refine the plan.

Table 1. Mitigation measures and guidelines for Waste Management

Mitigation Measures/ Guidelines	Purpose of Guideline/ Mitigation Measure	Time Frame	Responsible Party
GENERAL			
Build a bund around waste storage area to stop overflow into storm water.	Pollution Prevention	Construction Phase	NN Metals
Confirmation is needed from the local registered landfill site that they do have the capacity to receive the waste generated by the operational phase of the facility.	Pro-Active Planning, Identification of Alternatives	Planning Phase	NN Metals
Solid waste must be sent through the waste stream to specific waste collection points (waste must be sorted on the site), thereafter the waste must be collected by a registered waste removal and/or recycling company.	Awareness, Waste Reduction, Recycling of Waste	All Phases	NN Metals
The storage of solid waste on site, until such time that it may be disposed of, must be in a manner acceptable to the Local Authority, The Gauteng Department of Agriculture and Rural development (GDARD) and The National Department of Water Affairs (DWA).	Compliance with Legislation, policies, Frameworks, By-Laws etc.	All Phases	NN Metals
Place clearly marked separate bins (with lids) on site for paper, metal, glass, plastic and other material on site to ensure sorting of	Recycling, Waste Minimization,	All Phases	NN Metals

<p>materials to be recycled from an early stage.</p>	<p>Ensuring the Cooperation of Workers at the Site, Ensuring Compliance with Plan</p>		
<p>Keep records of waste reuse, recycling and disposal for future reference. Provide information to the Waste Control Officer (WCO).</p>	<p>Monitoring, Data Collection, Recycling, Waste reduction</p>	<p>All Phases</p>	<p>NN Metals</p>
<p>Prevent unhygienic usage on site and pollution of the natural assets. Develop a central waste temporary holding site to be used during construction (near access entrance). This site should comply with the following:</p> <ul style="list-style-type: none"> ▪ Skips for the containment and disposal of waste that could cause soil and water pollution, i.e. paint, lubricants, etc.; ▪ Small lightweight waste items should be contained in skips with lids to prevent wind littering. 	<p>Pollution Prevention, Ensuring Compliance with Plan</p>	<p>Construction Phase</p>	<p>NN Metals</p>
<p>During transportation, waste must be covered at all times to prevent wind from blowing away waste causing air pollution and to prevent spillages (especially in the case of collisions and other</p>	<p>Pollution Prevention, Ensuring Compliance with</p>	<p>All Phases</p>	<p>NN Metals</p>

	Plan and Legislation		
accidents. Waste storage area should be covered to prevent waste washing away or contaminate storm water systems during the rainfall season.	Pollution Prevention	All Phases	NN Metals
Domestic waste should be contained in skips with lids to prevent wind littering. These skips / bins shall be collected by Municipal workers once a week, and disposed of at a registered, licensed landfill site.	Pollution Prevention, Soil preservation, Waste minimization	All Phases	NN Metals
No waste water or water containing waste is to be discharged into the existing storm water drainage system.	Pollution Prevention	All Phases	NN Metals
Separate metals for recycling, including copper piping, wire flashing, aluminum siding, flashing and roofing, rebar, lead chimney flashing. It is critical to keep lead out of landfills, because it could leach into ground water.	Re-Use, Waste Reduction, Recycling, Pollution Prevention	Operational Phase	NN Metals
Old nickel cadmium batteries from portable power tools must be disposed of at a registered hazardous waste collection site.	Pollution prevention, Compliance with Legislative Requirements	Operational Phase	NN Metals
Appoint a Waste Control Officer to act as recycling co-coordinator and for compilation of reports (also refer to Chapter 3 for more detail regarding WCO tasks).	To Guarantee Implementation and Success of Plan	Operational Phase	NN Metals

Determine waste sorting methods. Waste streams should be identified and separated for ferrous and non-ferrous metals.	Waste and Recycling Monitoring, to make Waste Recycling Possible	Operational Phase	NN Metals
Implement and manage waste reduction and recycling plan.	To guarantee success of Plan	Operational Phase	NN Metals
Determine whether waste reduction and recycling targets have been achieved.	To determine success of Plan	Operational Phase	NN Metals
ENVIRONMENTAL POLLUTION AND POTENTIAL HEALTH RISKS FROM SOLID WASTE			
Any solid waste that is not taken off site as part of the metal recovery or recycling process will be stored in an approved area in skip containers for collection and disposal at The Waste Group.	Waste Reduction, Recycling, Pollution Prevention	Operational Phase	NN Metals
Disposal of solid waste shall be at an appropriately licensed landfill facility.	Pollution Prevention	Operational Phase	NN Metals
No waste shall be burned on site or at the approved solid waste disposal site.	Pollution Prevention	Operational Phase	NN Metals
The site should be kept in a neat and tidy condition. All waste items to not be processed by the facility should be temporarily stored in a specific designated area, and regularly disposed of.	Pollution Prevention	Operational Phase	NN Metals
Proper provision should be made for a designated area on site	Pollution Prevention	Operational	NN Metals

<p>for the duration of the operational phase for the storage of materials such as oils, greases, fuel and any material that might possibly leach into the soil and be harmful to the environment. This area should be lined with some form of secondary containment and banded to contain at least 110% of the spilled substance.</p>		Phase	
HAZARDOUS WASTE			
<p>Hazardous waste such as oil shall be disposed of at an appropriately licensed hazardous waste site, or through a registered hazardous waste management company. Special care shall be taken to avoid spillage of hazardous products.</p>	Pollution prevention	Operational Phase	NN Metals
<p>All hazardous waste shall be removed from the site and adequately disposed of. Disposal certificates shall be obtained from the relevant waste contractors and copies of these shall be retained by NN Metals. No hazardous waste may be stored on the site as that does not form part of the application.</p>	Pollution prevention	Operational Phase	NN Metals
<p>No contaminated or radio-active waste material may be accepted at the facility. Strict control should be exercised over incoming materials.</p>	Pollution prevention	Operational Phase	NN Metals
<p>All materials should be thoroughly inspected upon receipt, and prior to processing, to remove all materials not intended for</p>	Pollution prevention	Operational Phase	NN Metals

processing, as a result of hazardous properties.			
HAZARDOUS EFFLUENT			
All potentially hazardous effluent (oil, wet paint, gas, battery acid etc.) will not be accepted on site. Any item of scrap metal found to contain or possibly contain hazardous properties will be removed and placed in a designated quarantine area, to be disposed of at a registered hazardous landfill site through a registered licensed waste management company such as the Enviroserv waste management site at Holfontein. Disposal certificates shall be obtained from the relevant waste contractors and copies of these shall be retained by NN Metals.	Pollution Prevention	Operational Phase	NN Metals
RECYCLING			
Wherever possible, materials used or generated during operation shall be recycled or re-used.	Re-Use, Waste Reduction, Recycling	Operational Phase	NN Metals
The process of separation and sorting need to be done vigilantly as the different metals that are being recycled should remain divided.	Re-Use, Waste Reduction, Recycling	Operational Phase	NN Metals
NOISE CONTROL			
The applicant shall endeavor to keep noise and vibration generating activities to a minimum. Noisy operational activities	Limit noise pollution	Operational Phase	NN Metals

that could cause a major disturbance shall only be conducted during daylight working hours (6am – 5pm).	Limit noise pollution	All Phases	NN Metals
HEALTH AND SAFETY			
All the necessary equipment required for the safe use and handling of scrap metal and related material shall be provided by NN Metals to be used and worn by the staff at all times during operation.	Health and Safety compliance	Operational Phase	NN Metals
An external audit should be conducted by the supplier to establish and ensure that the dust extraction system (Eldan Recycling Plant) is functioning properly, and recommendations made to enhancing its functionality prior to final commissioning.	Health and Safety compliance, Dust Pollution Prevention	Operational Phase	NN Metals
Only materials, with reference to discarded electrical cables, with plastic, paper, textile or rubber insulated cables or steel armoured cables may be processed by the Eldan Recycling Plant.	Health and Safety compliance	Operational Phase	NN Metals
A Spill Contingency or Emergency Response Plan must be drawn up and should include the actions that need to be in the event of spillages of chemical, fuels etc., during the construction and operational phase of the proposed activity.	Health and Safety compliance, Pollution Prevention	Operational Phase	NN Metals

A proper Pest Management Plan should be implemented at the facility as the storage of metal in different areas leads to large populations of rodents and cats that may lead to such quantities that it becomes a pest.	Health and Safety compliance	Operational Phase	NN Metals
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Addendum B



Proposed N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility

Draft Waste Hierarchy Implementation Plan

Project Ref No: Gaut 002/12-13/W0004

Date: October 2013

Document Description:

Document Name:

Draft Waste Hierarchy Implementation Plan for the proposed N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility, City of Tshwane (CoT)

Client:

N.N. Metals (Pty) Ltd

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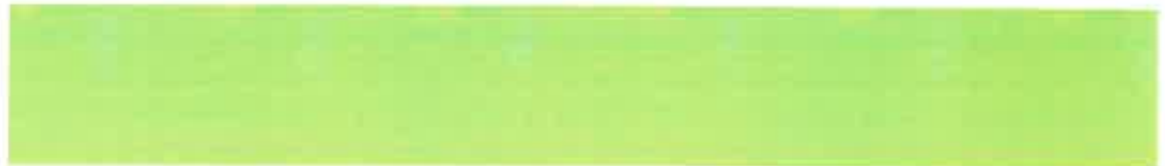


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1. Introduction and Background:

1.1 Introduction:

Bokamoso Landscape Architects & Environmental Consultants have been appointed as an independent environmental consultant/Environmental Assessment Practitioner (EAP) to facilitate the application for Environmental Authorisation (EA) for the proposed N. N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (here after referred to as NEMWA and/or "The Waste Act"), and the 2010 Environmental Impact Assessment (EIA) Regulations.

N.N. Metals (Pty) Ltd is a well-known dealer of ferrous and non-ferrous metals and their reclamation facilities services a considerable number of scrap metal suppliers, dealer and vendors in the broader Pretoria, Brits and Phalaborwa area. N.N. Metals is operating an existing Metal Reclamation Facility (MRF) in Koedoespoort, Silverton, but is the intension to relocate the said facility to a property in Waltloo, which is currently owned by the applicant.

The proposed MRF would essentially constitute the following components:

- Office buildings;
- Weighbridges;
- Eldan Specialised Cable Recycling Plant with dust/Fine particle extraction component;
- Diesel Generator;
- Enclosed non-ferrous Metal Reclamation Facility; and
- A bailing machine.

1.2 Background:

Bosman (2009:699) refer to waste as the consequences of all human activity and is generated from a variety of sources including amongst others, agriculture,

transportation, the healthcare industry and domestic households. NEMWA, 2008 is regarded as a Specific Environmental Management Act (SEMA) promulgated in terms of NEMA, 1998 and is the flagship environmental management statutes in South Africa which is concerned with and governs the management of all forms and types of waste from generation to disposal. The said Act refer to waste in a South African context as- *any substance whether or not that substance can be reduced, re-used, recycled and recovered:*

- *That is surplus, unwanted, rejected, discarded, abandoned or disposed of;*
- *Which the generator has no further use for the purposed of production;*
- *That must be treated or disposed of;*
- *That is identified as a waste by the minister by notice in the Gazette and includes waste generated by the mining, medical or other sector.*

Countries worldwide generate large quantities of waste, due to rapid population expansions and economic development (United States Environmental Protection Agency, 2002). The said population expansions and the associated quantities of waste generated places immense pressure in natural resources, which in turn result in environmental degradation and pollution on regional and global scales (Bosman, 2009:699). South Africa in particular is faced with the same challenge, which specific reference to the quantities of waste generated by its ever increasing consumerist population, and the inability of the natural environment to absorb and accommodate the said waste (Department of Environmental Affairs, 2011). It is recognised that, sustainable and sound environmental waste management is vital in order to reduce and manage the associated risk which waste and its management pose to human health and the environment, and the depletion of South Africa's non-renewable resources (Gauteng Department of Agriculture, Conservation and Environment, 2006).

The National Waste Management Strategy (here after referred to as the NWMS) was published in 1999, as a long term plan to address issues which emanate from the fragmented waste management system in South Africa, and in turn takes action on the policies which pertain to waste as set out in the White Paper on Integrated Pollution and Waste Management for South Africa (Gauteng Department of

Agriculture, Conservation and Environment, 2006). Integrated Waste Management Planning (IWMP) was identified by the NWMS as a strategic objective which is enforced with the enactment of NEMWA, 2008.

Integrated Waste Management Planning (IWMP) can be regarded as a holistic approach of integrating and optimising waste management with the overall objective to maximise efficiency and minimise the environmental impact and pollution, which are associated with the management of the said waste (Department of Environmental Affairs and Tourism, 2000). IWMP furthermore adopts the interdisciplinary steps of the internationally recognised waste hierarchy. The waste hierarchy is applicable to all types of waste (Bosman, 2009:708), and are considered as a set of waste management actions ranked in a descending order according to their importance (**Please refer to Figure 1- Waste Management Hierarchy**). The application of the waste management hierarchy is aimed to systematically address and/or facilitate the minimisation of waste disposed to land-fill through the actions of waste avoidance, reduction at source, the re-use of waste, recovery, treatment and disposal of waste as last resort. The primary objective of the waste Act, which is to protect the health, well-being and the environment is realized through the application of the recognised waste management hierarchy, and is regarded as the acceptable approach which informs waste management currently in South Africa (Department of Environmental Affairs, 2011).



Figure 1: Waste Management Hierarchy (Department of Environmental Affairs, 2011)

The waste hierarchy as per the NWMS requires that waste generation at first resort be prevented, and thus strategies should be implemented to avoid in the first instance waste generated by a facility. In instances where the generation of waste cannot be avoided, a facility should pose to reduce the amount of waste generated, as a second order strategy. Where the generation of waste cannot be reduced, the waste which emanate from a facility should be re-used, and if not possible be separated from a waste stream to be reclaimed (recycled) for further use. The recovery of waste is as per NEMWA means "*the controlled extraction of a material or the retrieval of energy from waste to produce a product*". Where waste cannot be recycled, the hierarchy provide for the recovery of waste, mostly for the retrieval of energy from waste to produce a product. All waste which cannot be re-used, recycled and/or recovered, should be treated where possible to change the physical, biological or chemical composition of waste to remove the hazardous and/or toxic components, and thus to minimise the impact of the waste on human health and the environment prior to further use or disposal. Once all possible measures and/or strategies has been taken to appropriately manage waste through the reduction, re-use, recycling, recovery and treatment thereof, disposal to land-fill is considered as the last resort.

This document represents the Waste Hierarchy Implementation Plan (WHIP) and has been compiled to be included in the application for EA for the proposed N.N. Metals (Pty) Ltd MRF, for consideration and approval by the competent authority, the Gauteng Department of Agriculture and Rural Development (GDARD). The said plan has been compiled to provide for and give effect to the integrated management of waste as per the waste hierarchy, generated by the proposed MRF. The WHIP is furthermore regarded as a tool, utilised to ensure that the proposed MRF materially complies with NEMWA, more specifically with regard to its general duty of care in respect to waste management as set out in Section 16 of NEMWA, 2008.

2. Purpose, Scope and objectives of the Waste Hierarchy Implementation Plan:

2.1 Purpose of the WHIP:

The WHIP is compiled to give effect to the objectives of IWMP as laid down in NEMWA, 2008. The WHIP should therefore be regarded as a key management tool to ensure the sustainable management of waste during the operational phase of the proposed MRF. The WHIP will thus primarily focus on integrated management measures for waste generated during the operational phase of the MRF with the primary objective to reduce the amount of waste generated to land-fill and to mitigate the environmental and human risk which are generally associated with the said waste.

2.2 Objectives of the WHIP:

The objectives of the WHIP is to-

- Formalise the identification, categorisation and classification of waste at source;
- Facilitate the minimisation of waste to land-fill, through the application of management practices which pertain to the avoidance, reduction, re-use, recycling or treatment of waste;
- Ensure the appropriate containment and disposal of waste according to acceptable waste management practices; and
- To prevent and/or reduce the environmental and human risks and pollution associated with waste management.

3. Waste Hierarchy Implementation Plan:

3.1 Permitting requirements/Legislative Requirements:

The proposed N.N. Metals (Pty) Walfloo MRF, is well known dealers in ferrous and non-ferrous metals, and is in essence a metal reclamation entity which recycles

ferrous and non-ferrous metals, which is sold as a product or raw material for further use. The proposed facility subsequently constitute a waste management facility which performs waste management activities, and thus requires formal approval for listed activities as per Government Notice (GN) 718 of 03 July 2009 as promulgated in NEMWA, 2008. In order to obtain the required authorisation for the waste management activities, an application for a new waste license has been lodged at the competent authority, the Gauteng Department of Agriculture and Rural Development (GDARD). This WHIP is compiled in relation to the application for EA. **(Please refer to Table 1, for the original list of activities applied for in terms of NEMWA)**

Table 1: Original list of activities applied for

Indicate the No and date of the relevant notice	Category A or Category B	Activity number as listed in either Category A or B	Describe each listed activity
GN 718 of 3 July 2009	Category A	Activity 1	The storage, including the temporary storage of general waste at a facility that has the capacity to store in excess of 100m ³ of general waste at any one time, excluding the storage of waste in lagoons.
GN 718 of 3 July 2009	Category A	Activity 5	The sorting, shredding, grinding or bailing of general waste at a facility that has the capacity to process in excess of one ton of general waste per day.
GN 718 of 3 July 2009	Category A	Activity 7	The recycling or re-use of general waste of more than 10 tons per month
GN 718 of 3 July 2009	Category A	Activity 18	The construction of facilities for activities listed in Category A of this Schedule.
GN 718 of 3 July 2009	Category A	Activity 19	The expansion of facilities for or changes to existing facilities for any process or

			<p>activity, which requires an amendment of an existing permit or license or a new permit or license in terms of legislation governing the release of pollution, effluent or waste.</p>
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3.2 Internal and external (GWIS/SAWIS) Reporting:

3.2.1 Background:

The National Waste Information Regulations (No. R. 625) was published on 13 August 2012 under Section 69(1)(y), (aa) and (ee) of NEMWA, 2008 in Gazette No. 35583 for implementation on 1 January 2013.

The Waste Act, with specific reference to Section 60(1) requires the minister to establish a national waste information system for the recording, collection, management and analysis of data and information pertaining to waste management. The South African Waste Information System (SAWIS) was in turn developed to support and facilitate the reporting of data. The Waste Information Regulations was specifically developed to enforce reporting to the SAWIS.

The purpose of the national waste information regulations is thus to regulate the collection of data and information to inform and/or fulfil the objectives of the SAWIS, as set out in Section 61 of the Waste Act. It should be noted that the regulations apply to all entities which is engaged in the recovery, recycling, treatment and disposal of waste, as well as the exportation and generators of hazardous waste.

Any person who conducts the listed activities as per Annexure 1 of the National Waste Information Regulations, with effect from 1 January 2013, should apply to the Department of Environmental Affairs (DEA) to be registered on the SAWIS. Upon registration, the entity which conducts a listed activity should report the waste management information on a quarterly basis to the SAWIS.

The proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility has registered in terms of Gauteng Waste Information Regulations, 2004 as a Waste Treatment Facility with the Gauteng Waste Information System (GWIS).

3.2.2 Registration at the SAWIS:

In terms of the National Waste Information Requirements (NWIR), any person and/or entity which conduct a listed waste management activity as per Annexure A, must apply to the Department of Environmental Affairs (DEA) to be registered on the SAWIS. The N.N. Metals Waitloo MRF is conducting the following listed activities as per the NWIR. **(Please refer to Table 2 for the listed activities and waste types applicable to the Waitloo MRF)**

Table 2: List activities and waste types

Listed Activity	Waste Type	Major Waste Type
The recycling of general waste at a facility that has an operational area in excess of 500m ²	General	Waste of Electric and Electronic Equipment (WEEE) from which the hazardous components have been removed.
	General	Paper
	General	Plastic
	General	Glass
	General	Metals

3.2.3 Reporting and Record Keeping:

N.N. Metals (Pty) Ltd, as a registered entity must in terms of the NWIR submit **quarterly** the information as outlined in Section 3.2.4 below.

3.2.4 Reporting requirements:

The required quarterly information should in terms of the NWIR, Annexure 2 comprise of:

- (a) The month and year to which the information applies;
- (b) Category of waste as detailed in Table 2;
- (c) Sources from which the waste emanate; and

(d) The quantity of waste reported in Tons.

3.3 Waste Characterisation/classification and waste stream identification:

3.3.1 Background:

The proposed N.N. Metals Waltloo MRF is in essence a formal waste management facility, which recycles various ferrous and non-ferrous metals, for further use of as a product or raw material. The MRF would in addition to the management of waste metals, generate general and hazardous waste through the operation of the MRF. The WHIP is subsequently applicable to the management of not only ferrous and non-ferrous metals, but also addresses the integrated management of other types of general and hazardous wastes generated as a result of the MRF operations.

The first step of the WHIP is concerned with the formal characterisation and classification of waste according to a recognised classification system, at source. Waste which emanate from, and are formally managed by the MRF should as per the requirements of the WHIP be formally categorised at source in order provide for:

- The identification of the different waste streams;
- The separation of the waste types at source;
- The integrated and appropriate management of the different waste types;
- The consideration and establishment of the hazards and risks associated with the waste type; and
- The accumulation to data for reporting to the GWIS/SAWIS.

3.3.2 Waste Classification System:

In order to formalise the characterisation and separation of waste at source, it is essential that waste generated and managed the MRF be formally classified according to the provisions of the waste classification system as per NEMWA. Waste is categorised/classified as either General or Hazardous waste, which in turn can be categorised according to their source into domestic, commercial and industrial (Department of Environmental Affairs and Tourism, 2000). NEMWA refers to general

waste as “Waste that does not pose an immediate hazard or threat to health or the environment, and includes (a) domestic waste; (b) building and demolition waste; (c) business waste; (d) inert waste”. General waste can in turn be sub-divided into paper, metals, glass, plastics, organic and inert wastes as per the NWMS.

Hazardous waste is in terms of NEMWA waste which “owing to its inherent physical, chemical or toxicological characteristics” has a detrimental impact on human health and the environment. Hazardous waste is subsequently categorised according nine different classes which is designated as hazard ratings in terms of the Department of Water Affairs and Forestry (DWAF) Minimum Requirements for the handling, Classification and Disposal of Hazardous Waste (Department of Environmental Affairs and Tourism, 2000).

3.3.3 Waste stream classification:

The following categories are designated for the classification of waste which emanate from and are managed by the MRF. The categories designated for classification has been derived from the waste types for reporting to the SAWIS, as per the NWIR, 2012. **(Please refer to Table 3 below)**

Table 3.1: Categories for general waste classification (derived from GN. R. 625 of 2012)

Waste Type	
General (Level 1)	
General Domestic, Business and Industrial Waste	
Recyclables	
Major Waste Type	Specific Waste Type
1. Organic Wastes	Garden Waste Food Waste Wood waste

2. Paper	Newspaper and Magazines White grades Brown grades White grades Mixed grades
3. Plastic	Polyethylene Terephthalate (PET) Polyvinyl Chloride (PVC) Low-density polyethylene (LPDE) Polypropylene (PP) Polystyrene (PS)
4. Glass	
5. Metals	Ferrous Metal Non-Ferrous Metal
6. Waste of Electric and Electronic Equipment (WEEE) from which the hazardous components/substances have been removed	Large Household Appliances Small Household Appliances Office, information & Communication equipment Entertainment & Consumer Electronics and toys, leisure, sports & recreational Lighting equipment Electric and Electronic tools Mixed WEEE Security & Health care equipment
Non-Recyclables	
7. Organic waste	Residues - Bones; - Painted woods; and - Soiled Polyethylene.
8. Contaminated organic wastes, paper, plastic, glass, metals and WEEE, that contain organic and inorganic components which may owing to its physical, chemical or toxicological characteristics of the said waste have a detrimental impact on health and the environment.	

Table 3.2: Categories for Hazardous waste classification (derived from GN. R. 625 of 2012)

Waste Type
Hazardous (Level 1)
Hazardous Domestic, Business and Industrial Waste

Recyclables	
Major Waste Type	Specific Waste Type
1. Used oil waste	Used Cooking Oil Used lubricant, spent lubricant, hydraulic oils and hydrocarbon based solvents
2. Batteries	Lead batteries Mercury batteries Ni/Cd batteries Manganese dioxide and alkali batteries Lithium & Lithium ion batteries Nickel-metal hydride batteries Mixed batteries
Non-recyclables	
3. Fats and greases	
4. Chemicals	
5. Oil contaminated waste	Solid waste which has been contaminated by hydrocarbons, and/or contain oil/hydrocarbon residues. Contaminated soil Spill cleanup sawdust, empty oil and grease containers.
6. Paint waste	
7. Fluorescent light bulbs	
8. Healthcare risk waste	Pathological waste Infectious waste Chemical waste
9. Contaminated plastic, glass, metal, paper and wood wastes	
10. Chemical waste	Cleaning products Pesticides Flammable products
11. Organic waste	Residues - Bones; - Painted woods; and - Soiled Polyethylene.

12. Contaminated organic wastes, paper, plastic, glass, metals and WEEE, that contain organic and in-organic components which may owing to its physical, chemical or toxicological characteristics of the said waste have a detrimental impact on health and the environment.	
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3.4 Waste avoidance and reduction

The waste hierarchy plan promotes the avoidance and reduction of waste. The NN Metals Reclamation Facility will support this initiative. It is important to note that the production of waste cannot be avoided entirely. Important to note is that the entire Metal Reclamation Facility constitutes of recovery, re-use and recycling of metals to remove it from the waste streams. It reduces the volume of waste that moves up the waste hierarchy.

Waste that is created through the reclamation process will be used further down the waste hierarchy implementation plan.

3.5 Re-Use

Reuse is defined in the Waste Act as follows: *"Reuse means to utilize articles from the waste stream again for similar or different purpose without changing the form or properties of the articles"*

All metals on site, used or generated during operation, will be recycled or re-used.

3.6 Recycling

Recycling is defined in the Waste Act as follows: *"Recycling means a process where waste is reclaimed for further use, which process involves the separation of waste from a waste stream for further use and the processing of that separated material as a product of raw material"*

Types of Waste	Main Source	Quantities
Ferrous scrap metal (steel)	External scrap metal suppliers and vendors	2000 tons/month
Ferrous scrap metal (sub-grade)	External scrap metal suppliers and vendors	375 tons/month
Ferrous scrap metal (cast-iron)	External scrap metal suppliers and vendors	100 tons/month
Non-ferrous scrap metal	External scrap metal suppliers and vendors	200 tons/month

On site recycling

Ferrous scrap metal (steel)

Ferrous scrap metals are supplied by a number of external suppliers and vendors, delivered to the reclamation facility by truck and/or bakkie loads. The scrap metal received is visually inspected, to remove any other waste material that will not be recycled as part of the process. Such materials are designated as unwanted, and are disposed of by the service provider and/or vendor which supplied the scrap metal in the first instance. The scrap metal is weighed at a weighbridge (situated at the entrance of the site) or platform/bench scale for small weight items.

Ferrous metals are once weighed, sorted into (a) steel, (b) sub-grade material, and (c) cast iron. (Please note that in many instances an external supplier will deliver ferrous scrap metal as steel, sub-grade material or cast-iron).

The steel is stockpiled on a surface with secondary containment (concrete lined). The steel is once separated from the sub-grade and cast iron, reduced with the use of a cutting torch and/or cropper. The steel is once reduced stockpiled as recycled material for collection by clients.

Ferrous scrap metal (sub-grade)

Ferrous scrap metals are supplied by a number of external suppliers and vendors, delivered to the reclamation facility by truck and/or bakkie loads. The scrap metal received is visually inspected, to remove any other waste material that will not be recycled as part of the process. Such materials are designated as unwanted, and are disposed of by the service provider and/or vendor which supplied the scrap

metal in the first instance. The scrap metal is weighed at a weighbridge (situated at the entrance of the site) or platform/bench scale for small weight items.

Ferrous metals are once weighed, sorted into (a) steel, (b) sub-grade material, and (c) cast iron. (Please note that in many instances an external supplier will deliver ferrous scrap metal as steel, sub-grade material or cast-iron).

The sub-grade material is once separated, stockpiled on a surface with secondary containment. The sub-grade material is in many instances reduced through the use of a bailing machine. This process will take place in an enclosed waste management facility. The reduced sub-grade material is once reduced stockpiled as recycled material for collection by clients.

Ferrous scrap metal (cast-iron)

Ferrous scrap metals are supplied by a number of external suppliers and vendors, delivered to the reclamation facility by truck and/or bakkie loads. The scrap metal received is visually inspected to remove any other waste material that will not be recycled as part of the process. Such materials are designated as unwanted, and are disposed of by the service provider and/or vendor which supplied the scrap metal in the first instance. The scrap metal is weighed at a weighbridge (situated at the entrance of the site) or platform/bench scale for small weight items.

Ferrous metals are once weighed, sorted into (a) steel, (b) sub-grade material, and (c) cast iron. (Please note that in many instances an external supplier will deliver ferrous scrap metal as steel, sub-grade material or cast-iron.

The cast –iron is once separated, stockpiled on a surface with secondary containment, as recycled material for collection by clients.

Non-ferrous scrap metal

Non-ferrous scrap metals are supplied by a number of external suppliers and vendors, delivered to the reclamation facility by truck and/or bakkie loads. The scrap metal received is visually inspected, to remove any other waste material that will not be recycled as part of the process. Such materials are designated as

unwanted, and are disposed of by the service provider and/or vendor which supplied the scrap metal in the first instance. The scrap metal is weighed at a weighbridge (situated at the entrance of the site) or platform/bench scale for small weight items.

Non-ferrous scrap metals, once weighed are visually sorted into different classes at an enclosed waste management facility with secondary containment. The non-ferrous metal is as with the ferrous metal waste stream, visually inspected to remove any other waste material that will not be recycled in the process. Such materials are temporarily stored at a designated waste storage area and/or facility until disposed of by a service provider. The non-ferrous metals are once sorted temporarily stored, at an enclosed storage facility until collected by trucks and transported to clients.

3.7 Recovery

Recovery is defined in the Waste Act as follows: "Recovery means the controlled extraction of material or the retrieval of energy from waste to produce a product"

Types of Waste	Main Source	Quantities
General waste/domestic waste material other than ferrous and non-ferrous scrap metals	General waste and/or domestic waste, (waste material other than ferrous and non-ferrous scrap metals) are removed/recovered from scrap metal stockpiles, and temporary stored on site, at a designated area prior to disposal by a contracted service provider. General waste, including domestic waste produced by the operations of the waste reclamation facility	0.88 ton/month

On site recovery

General waste materials, including domestic waste are removed from scrap metal stockpiles during the metal reclamation process, and temporarily stored at a designated waste storage area at the facility, until disposed of by a contracted service provider.

General waste, including domestic waste is produced by the operations of the waste reclamation facility, and temporarily stored at a designated waste storage area, until disposed of by a contracted service provider.

3.8 Treatment and Disposal

The treatment and disposal of materials does not take place on site. However, general waste are being disposed of at a City of Tshwane Waste Disposal Facility and a service provider has been appointed for the transport, disposal and chemical treatment of hazardous waste generated on site.

4. Conclusion

The waste management process at the NN Metals Reclamation Facility promotes and is in accordance with the waste hierarchy plan where waste materials are being re-used, recycled recovered and treated.

Acknowledgement Letter



agriculture and rural development

Department: Agriculture and Rural Development
GAUTENG PROVINCE

Diamond Corner Building, 68 Eloff & Market Street, Johannesburg
P O Box 8788, Johannesburg, 2008

Telephone: (011) 355-1990

Fax: (011) 355-1090

Website: <http://www.gdard.gpg.gov.za>

Reference:	Gaut: 002/12-13/W0004
Enquiries:	Faith Marnbo
Telephone:	(011) 355-1974
Email:	Faith.marnbo@gauteng.gov.za

Bokamoso Landscape Architects & Environmental Consultants

Fax no. 086 570 5639

PER FACSIMILE

Dear Sir / Madam

Application for Environmental Authorisation: N.N. Metals (Pty) Ltd Waitso Metal Reclamation Facility

The Department acknowledges having received the application form for environmental authorisation of the above-mentioned project on 06/06/2012.

The application has been assigned the reference number Gaut: 002/12-13/W0004. Kindly quote this reference number in any future correspondence in respect of the application.

Please circulate the draft report to any state department that administers a law relating to a matter affecting the environment to comment.

You are required to submit two (2) copies (full colour CDs-PDF) of the Draft Basic Assessment Report as well as proof of submission to state departments referred to above.

In order to determine whether a biodiversity assessment is required and, if so, which specialist studies are required, please send a shapefile (WGS84 datum: geographic co-ordinate system) of the application site to our biodiversity information service (GDACE_BiodiversityInfo@gauteng.gov.za), the e-mail clearly indicating the project

From:

To:00865705859

06/07/2012 13:13

#628 P.002/002

reference number. Where biodiversity assessment is required; please ensure that it is conducted consistent with the *GDACE Requirements for Biodiversity Assessments*. A copy of this document can be obtained by e-mailing GDACE_BiodiversityInfo@gauteng.gov.za

In terms of Regulation 67(1) (2) of the NEMA EIA Regulations 2010, this application will lapse should you fail to submit the requested information within 6 months of the date of signature of this letter, except in the case where the Department has received and accepted written explanation for failure to submit such information.

Please draw the applicant's attention to the fact that the activity may not commence prior to a waste management license being granted by the Department.

Yours faithfully



Boniswa Belot

Deputy Director: Strategic Administration Support

Date: 06/07/2012

CC: N.N. Metals (Pty) Ltd

Att: Mrs R Verster

Tel: 012 541 0547

Fax: 012 541 0549

Basic Assessment



Gauteng Department of Agriculture and Rural Development (GDARD)

Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2010 (Version 1)

List of all organs of state and State Departments where the draft report has been submitted, their full contact details and contact person

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2010.
 2. This application form is current as of 2 August 2010. It is the responsibility of the EAP to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
 3. A **draft Basic Assessment Report must be submitted to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken. The draft reports must be submitted to the relevant State Departments and on the same day, two CD's of draft reports must also be submitted to the Competent Authority (GDARD) with a signed proof of such submission of draft report to the relevant State Departments.**
 4. 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.
 5. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
 6. An incomplete report shall be rejected.
 7. 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.
 8. Five (5) copies (3 hard copies and 2 CDs-PDF) of the final report and attachments must be handed in at offices of the relevant competent authority, as detailed below.
 9. No faxed or e-mailed reports will be accepted. Only hand delivered or posted applications will be accepted.
 10. Unless protected by law, and clearly indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.
-

DEPARTMENTAL DETAILS

Gauteng Department of Agriculture and Rural Development
Attention: Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
P.O. Box 8769
Johannesburg
2000

Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
18th floor Glen Cairn Building
73 Market Street, Johannesburg

Admin Unit telephone number: (011) 355 1345
Department central telephone number: (011) 355 1900

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

(For official use only)

File Reference Number:	Gaut:002/12-13/W0004					
Application Number:						
Date Received:						

* Submission to State Departments (Number 3 above)

Has a draft report for this application been submitted to all State Departments administering a law relating to a matter likely to be affected as a result of this activity?

YES X

Is a list of State Departments referred to above been attached to this report?

YES X

if no, state reasons for not attaching the list.

--

SECTION A: ACTIVITY INFORMATION

1. ACTIVITY DESCRIPTION

Project title (must be the same name as per application form):

Bokamoso Landscape Architects & Environmental Consultants have been appointed as an independent environmental consultants/Environmental Assessment Practitioner (EAP) to facilitate the environmental management processes associated with the proposed **N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility** in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), the 2010 Environmental Impact Assessment (EIA) regulations, and the National Environmental Management Waste Act, 2008 (Act No. 59 of 2008) (NEMWA) (here referred to as 'the Waste Act')

The National Environmental Management Waste Act, 2008, came into effect on 1 July 2009, and subsequently 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. On 3 July 2009 the Minister of Water and Environmental Affairs published a list of waste management activities, which required authorisation in terms of the Waste Act prior to commencement. In terms of Government Notice 718 of the Waste Act, any person who wishes to commence, undertake or conduct a waste management activity, as listed under Category A, must conduct a Basic Assessment (BA) process, as stipulated in the EIA Regulations, made under Section 24(5) of NEMA, 1998 as part of a waste management license application.

N. N. Metals (Pty) Ltd is a prominent and well-known dealer of ferrous and non-ferrous metals and their metal reclamation facilities services a considerable number of scrap metal suppliers, dealers and vendors in the broader Pretoria, Brits and Phalaborwa area. N.N Metals (Pty) Ltd is operating an existing metal reclamation facility (MRF) in the in Koedoespoort, Silverton, but it is their intension to relocate the said facility to a property in Waitloo, which is currently owned by the applicant. *(Please refer to Appendix J for a process overview of the proposed MRF and the Eldan Recycling Plant and Appendix A for the site layout)*



BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Select the appropriate box

The application is for an upgrade of an existing development The application is for a new development Other, specify

Does the activity also require any authorisation other than NEMA EIA authorisation?

YES X	NO
----------	----

If yes, describe the legislation and the Competent Authority administering such legislation

The proposed N N Metals (Pty) Metal Reclamation Facility requires a Waste Management License issued in terms of the National Environmental Management Waste Act, 2008 (Act No. 59 of 2008) *(Please refer to Table 1 below for a list of Waste Management activities applied as per GN 718 of 3 July 2009)*

The competent authority administering the said authorisations is the Gauteng Department of Agriculture and Rural Development (hereafter referred to as GDARD). A new Waste License Application was submitted to the delegated authority on 04/06/2012. *(Please refer to the attached Waste License Application and acknowledgement letter from GDARD)*

Please note: the proposed activities does not require any authorisation in terms of the National Environmental Management Act, 1998 and the 2010 Amended NEMA EIA Regulations.

This report represents the Final Basic Assessment Report (FBAR) prepared as part of the Waste License Application.

If yes, have you applied for the authorisation(s)?

YES X	NO
YES	NO X

If yes, have you received approval(s)? (attach in appropriate appendix)

Table 1: Original List of Waste Management Activities applied for

INDICATE THE NO. & DATE OF THE RELEVANT NOTICE	CATEGORY A OR B (AS LISTED IN NATIONAL ENVIRONMENTAL MANAGEMENT WASTE ACT)	ACTIVITY NUMBERS (AS LISTED IN EITHER CATEGORY A OR B OF NATIONAL ENVIRONMENTAL MANAGEMENT WASTE ACT)	DESCRIBE EACH LISTED ACTIVITY:
GN 718 of 3 July 2009	Category A	Activity 1	The storage, including the temporary storage of general waste at a facility that has the capacity to store in excess of 100m ³ of general waste at any one time, excluding the storage of waste in lagoons.
GN 718 of 3 July 2009	Category A	Activity 5	The sorting, shredding, grinding or bailing of general waste at a facility that has the capacity to process in excess of one ton of general waste per day.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

GN 718 of 3 July 2009	Category A	Activity 7	The recycling or re-use of general waste of more than 10 tons per month
GN 718 of 3 July 2009	Category A	Activity 18	The construction of facilities for activities listed in Category A of this Schedule.
GN 718 of 3 July 2009	Category A	Activity 19	The expansion of facilities for or changes to existing facilities for any process or activity, which requires an amendment of an existing permit or license or a new permit or license in terms of legislation governing the release of pollution, effluent or waste.

2. 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:

Title of legislation, policy or guideline:

Administering authority:

Promulgation Date:

National Environmental Management Act No. 107 of 1998 as amended, and the 2010 Environmental Impact Assessment Regulations.	National & Provincial	27 November 1998 01 August 2010
<p>NEMA provide for co-operative, environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote co-operative governance and procedures for co-ordinating environmental functions exercised by organs of state and to provide for matters connected therewith.</p> <p>This Act formulates a set of general principles to serve as guidelines for land development and it is desirable that:</p> <ul style="list-style-type: none"> ▪ The law develops a framework for integrating good environmental management into all development activities; ▪ The law should promote certainty with regard to decision-making by organs of state on matters affecting the environment; ▪ The law should establish principles guiding the exercise of functions affecting the environment; ▪ The law should ensure that organs of state maintain the principles guiding the exercise of functions affecting the environment; ▪ The law should establish procedures and institutions to facilitate and promote co-operative government and inter-governmental relations; ▪ The law should establish procedures and institutions to facilitate and promote public participation in environmental governance; and ▪ The law should be enforced by the State and that the law should facilitate the enforcement of environmental laws by civil society. <p>Integrated Environmental Management</p> <p>Integrated Environmental Management (IEM) is a philosophy, which prescribes a code of practice for ensuring that environmental considerations are fully integrated into all stages of the development</p>		

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

process. This philosophy aims to achieve a desirable balance between conservation and development (Department of Environmental Affairs, 1992). The IEM guidelines intend endearing a pro-active approach to sourcing, collating and presenting information at a level that can be interpreted at all levels.

Environmental Impact Assessment (EIA) Regulations:

The Minister of Environmental Affairs, promulgated and passed in (April 2006) Environmental Impact Assessment Regulations (the new regulations) in terms of Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA).

When these regulations came into effect on 3 July 2006 they replaced the Environmental Impact Assessment Regulations that were promulgated in terms of the Environmental Conservation Act, 1989 (Act No. 73 of 1989) (ECA) in 1997, and introduced new provisions for EIAs.

The National Environmental Management Amendment Act, 2008 (Act 62 of 2008) (NEMAA), that was promulgated on 9 January 2009 (came into effect on 1 May 2009), made a number of significant amendments to the general provisions applicable to EIA's. On 2 August 2010 the Amended EIA Regulations came into effect and replaced the new EIA Regulations of 2006.

Notice R. 544 R. 545, & R. 546 of the Amended Regulations list activities that indicate the process to be followed. The Activities listed in Notice No. Notice R. 544 & R 546 require that a Basic Assessment process be followed and the activities listed in Notice No. R 545 requires that the Scoping and EIA process be followed.

Implications for proposed development:

Significant- The National Environmental Management Act, 1998 introduces guiding principles to the South African environmental legislation which pertain to waste management, including the life-cycle approach, producer responsibility, the precautionary principle and the polluters pay principle. Chapter 5 specifically designates instruments for integrated waste management. NEMA furthermore places a duty of care on any person who may cause significant pollution, or degradation of the environment, requiring them to institute measures to either prevent pollution from occurring or to minimize and rectify pollution and degradation where it cannot reasonable be avoided.

Note: The proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility does not require any Environmental Authorisation (EA) in terms of Government Notice R. 544, R. 545 & R. 546 of 2010 and thus no application for such authorisation was submitted to the relevant competent authority.

The National Environmental Management: Waste Act, 2008 (Act 59 of 2008)	National	March 2009
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The National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEMWA) was finally Gazetted on 10 March 2009, and give effect to the White Paper on Integrated Pollution and Waste Management and the National Waste Management Strategy (NWMS). The said Act came into effect on 1 July 2009, and subsequently 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.

On 3 July 2009 the Minister of Water and Environmental Affairs published a list of waste management activities, which required authorisation in terms of the Waste Act prior to commencement. In terms of Government Notice 718 of the Waste Act, any person who wishes to commence, undertake or conduct a waste management activity, as listed under Category A, must conduct a Basic Assessment (BA) process, as stipulated in the EIA Regulations, made under Section 24(5) of NEMA, 1998 as part of a waste management license application.

Purpose of the Act:

To reform the law regulating waste management in order to protect the health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development; to provide for institutional arrangements and planning matters ;national norms and standards for regulating the management of waste by all spheres of government; to provide for specific waste management measures; to provide for the licensing and control of waste management activities; to provide for the remediation of contaminated land; to provide for the national waste information system; to provide for compliance and enforcement; and to provide for matters connected therewith.

Objectives of the Act:

- To ensure sound environmental management of waste.
- To provide for utilisation of environmentally-sound methods that maximise the utilisation of valuable resources and encourage resource conservation and recovery;
- To reduce risk to human health and prevent the degradation of the environment through usage of mechanisms that promote the following:
 - Pollution prevention and cleaner production
 - Volume reduction at source
 - Recycling, recovery and reuse
- Set guidelines and targets for waste avoidance and volume reduction through source reduction and waste minimisation measures, including composting, recycling, re-use, recovery, green charcoal process, and others, before collection, treatment and disposal in appropriate and environmentally sound waste management facilities in accordance with this act;
- To ensure the proper segregation, collection, transportation, storage, treatment and disposal of waste through the formulation and adoption of the best environmental practice in ecological waste management;
- To promote national research and development programs for improved waste management and resource conservation techniques, more effective institutional arrangement and indigenous and improved methods of cleaner production, waste reduction, reuse, collection, treatment, separation and recovery;
- To encourage greater private sector participation in waste management;
- To encourage cooperation and self-regulation among waste generators through the application of market-based instruments;
- To institutionalize public participation in the development and implementation of national, provincial and local integrated, comprehensive, and ecological waste management programs;

- To strengthen the integration of ecological waste management and resource conservation and recovery topics into the academic curricula of formal and non-formal education in order to promote environmental awareness and action among the citizenry; and
- To control the export, import, transit, reuse, recovery, treatment and disposal of waste to ensure that all operations relating to export, import, transit, reuse, **recovery**, treatment and disposal will be undertaken in an environmentally sound manner.

Implications for proposed development:

Significant-

- The proposed N. N. Metals (Pty) Ltd Waltloo Metal Reclamation facility is a listed activity in terms of **Government Notice 718 of 2009** (Specifically Category A) and is thus subsequently subjected to authorisation in terms of the NEMWA, 2008 prior to the commencement of any waste management activity. A new waste license application was compiled and submitted to the approving authority, GDARD on 04/06/2012;
- **The National Waste Information Regulations (No. R. 625)** was published on 13 August 2012 under Section 69(1)(y), (aa) and (ee) of NEMWA, 2008 in **Gazette No. 35583** for implementation on 1 January 2013.

The Waste Act, with specific reference to Section 60(1) requires the minister to **establish** a national waste information system for the recording, collection, management and analysis of data and information pertaining to waste management. The South African Waste Information System (SAWIS) was in turn develop to support and facilitate the reporting of data. The Waste Information Regulations was specifically developed to enforce reporting to the SAWIS.

The purpose of the national waste information regulations is thus to regulate the collection of data and information to inform and/or fulfil the objectives of the SAWIS, **as set out** in Section 61 of the Waste Act. It should be noted that the regulations apply to all entities which is engaged in the recovery, recycling, treatment and disposal of waste, as well as the exportation and generators of hazardous waste.

Any person who conducts the listed activities as per Annexure 1 of the National Waste Information Regulations, with effect from 1 January 2013, should apply to the Department of Environmental Affairs (DEA) to be registered on the SAWIS. Upon registration, the entity which conducts a listed activity should report the waste management information on a quarterly basis to the SAWIS.

The proposed N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility has registered in terms of Gauteng Waste Information Regulations, 2004 as a Waste Treatment Facility with the Gauteng Waste Information System (GWIS) (**Please refer to Appendix J for the attached registration certificate**).

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)	National	2004
<p>The NEMA: Air Quality Act, 2004 (here after referred to as NEM:AQA) repealed the Atmospheric Pollution Prevention Act, 1965 (Act 45 of 1965) ('APPA'), and came into effect on 11 September 2005.</p> <p>The Air Quality Act regulates air quality in order to protect the environment. It provides reasonable measures for the prevention of pollution and ecological degradation and for securing ecological sustainable development while promoting justification economic and social development.</p> <p>The purpose of the Act is to set norms and standards that relate to:</p> <ul style="list-style-type: none">▪ Institutional frameworks, roles and responsibilities;▪ Air Quality management planning;▪ Air Quality monitoring and information management;▪ Air Quality management measures▪ General Compliance and enforcement <p>Amongst other things, it is intended that the setting of norms and standards will achieve the following:</p> <ul style="list-style-type: none">▪ The protection, restoration and enhancement of air quality in South Africa ;▪ Increased public participation in the protection of air quality and improved public access to relevant and meaningful information about air quality;▪ The reduction of risks to human health and the prevention of the degradation of air quality. <p>The Act describes various regulatory tools that should be developed to ensure the implementation and enforcement of air quality management plans. These include:</p> <ul style="list-style-type: none">▪ Priority Areas, which are air pollution "hot spots"▪ Listed activities, which are 'problem' processes that require an Atmospheric Emission License;▪ Controlled emitters, which includes the setting of emission standards for 'classes' of emitters, such as motor vehicles, incinerators, etc.▪ Control of noise;▪ Control of odours <p>NEM:AQA introduces a system of based on ambient air quality standards, and corresponding emission limits to achieve them. Two significant sets of regulations were subsequently promulgated, and came into force under Section 21 of NEM: AQA, which supersedes the scheduled process permits under Schedule 2 of APPA.</p> <ul style="list-style-type: none">• GNR 248 have been promulgated on 31 March 2010 (Government Gazette 33064) National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) <i>list activities which result in Atmospheric Emissions which have or may have a significant detrimental effect on the environment, including health, social conditions, economic conditions or cultural heritage</i>; and• GNR 1210 have been promulgated on 24 December 2009 (Government Gazette 32816) National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004), <i>National</i>		

Ambient Air Quality Standards.

The NEM:AQA provide for regulations with regard to the **control of noise**. Specific reference is in this particular case made to Section 34 of the Air Quality Act which reads

"(1) The minister may prescribe essential national standards-

(a) For the control of noise, either in general or by specific machinery or activities or in specified places or areas; or

(b) For determining-

(i) A definition of noise; and

(ii) The maximum levels of noise.

(2) When controlling noise the provincial and local spheres of government are bound by any prescribe national standards"

In terms of NEM:AQA the minister should prescribe the maximum allowable noise levels for different districts and publish national noise standards. This has however not been implemented yet and all monitoring and assessment with regard to noise emissions is done in accordance with the South African National Standards (SANS) 10103 and SANS 10328.

Implications for proposed development:

Not Significant-

The proposed MRF have the addition of a specialized Eldan Recycling plant, which accommodates the separation of non-ferrous metals (aluminum and copper) from insulation material, of which include plastic, rubber and/or paper. The power cables may also have steel or lead armouring which can also be processed in the Eldan Plant. The recycling plant has a complete dust extraction system, with a single stack discharge. It was established upon a formal site inspection that no dust is discharged from the single stack. The extraction system, and relevant aspects of the said system will in addition be properly sealed with the use of alternative engineering and associated material solutions, to ensure that no emissions with specific reference to dust particles. ***(Please refer to Appendix I (xiii) for the engineering solutions proposed by N.N. Metals to contain and trap dust apart from the formal extraction system).*** Eldan Recycling, the manufacturer of the plant confirmed that, that with the dust extraction component in place, and used for the purpose intended, it conforms during operation to all European Emission Standards.

In terms of GN 248 as published on 31 March 2010, Category (4), and Sub-Category is designated for the recovery of metals, and in particular the recovery of non-ferrous metals from any form of scrap metal. Specific reference is made to sub-category 4.21- *The recovery of non-ferrous metals from any form of scrap metal containing combustible components, by the application of heat.*

The recovery and recycling of the non-ferrous metals via the Eldan Recycling Plant will constitute a mechanical separation process, and as such, as no heat will be applied, sub-category 4.21 is not regarded as significant.

- **Dust fallout:** The activities to be associated with the metal reclamation facility, will be performed on impermeable concrete surfaces, and thus the loading, off-loading and management of ferrous and non-ferrous scrap metal on site will generate a limited amount of dust.

It should be noted that there is at present no legislative framework and/or standards pertaining to the control of dust, and permissible fallout rates. The South African Air Quality Framework recognises the American Standard for Testing and Materials (ASTM) D1739 and incorporates the SANS 1929 (2005) guidelines- *Ambient Air Quality: Limits for common pollutants* and is at such regarded as the main reference to dust fall monitoring and assessment. Draft National Dust control Regulations has been published by the Department of Environmental Affairs (DEA) for comment (Notice 309 of 2011) in terms of Section 32 of NEM:AQA and will thus provide for legislative standards with regard to dust fall.

A four band scale has been developed in terms of SANS 1929, which provide for standards applicable to permissible dust fall rates in residential and industrial areas. Dust fall rates are expressed as mg/m²/day over a 30 day averaging period. Please refer to **Table 2 Four band scale evaluation criteria for dust deposition.**

It should be noted that the proposed MRF is to be located in an existing industrial node, and thus the permissible dust fall rate in terms of SANS 1929 is 600 -1200 mg/m²/day over a 30 day period.

Table 2: Four-band scale evaluation criteria for dust deposition (SANS 1929:2005)

Band Number	Band description label	Dust-Fall rate (D) (mg/m ² /day), 30 day average	Comment
1	Residential	D < 600	Permissible for residential and light commercial
2	Industrial	600 < D < 1200	Permissible for heavy commercial and industrial
3	Action	1200 < D < 2400	Requires investigation and remediation of two sequential months lie in this band, or more than three occur in a year
4	Alert	2400 <	Immediate action and remediation required following the first exceedance. Incident report to be submitted to the relevant authority.

National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003)	National	2003
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The purpose of this Act is to provide for the protection, conservation and management of ecologically viable areas representative of South Africa's biological diversity and its natural landscapes and

seascapes, for the management of those areas in accordance to national norms and standards, as well as for the intergovernmental co-operation and public consultation in matters concerning protected areas. Protected areas are to be conserved for their biodiversity and ecological integrity.

Implications for proposed development:

Not Significant- It is from a desktop study evident that the subject property is not located in any conservancy or protected area

National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)	National	2004
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The National Environmental Management: Biodiversity Act, 2004 provides for the management and protection of the countries biodiversity within a framework established by NEMA. It provides for the protection of species and ecosystems in need of protection, sustainable use of indigenous biological resources, equity in bio-prospecting, and the establishment of a regulatory body, the South African Biodiversity institute.

The objectives of the National Environmental Management: Biodiversity Act, 2004, as laid down in Section 2 of the Act, is:

- To provide for within a framework of the National Environmental Management Act:
 - The management and conservation of biological diversity within the Republic and of the components of such biological diversity;
 - The use of indigenous biological resources in a sustainable manner; and
 - The fair and equitable sharing amongst stakeholders of benefits arising from bio-prospecting involving indigenous biological resources.
- To give effect to ratified international agreements relating to biodiversity which are binding on the republic;
- To provide for co-operative governance in biodiversity management and conservation; and
- To provide for a South African National Biodiversity Institute (SANBI) to assist in achieving the objectives of the Act.

Implications for proposed development:

Not significant- As indicated previously, the subject property is located within an existing industrial node, and is at present in a developed and transformed state, with some existing buildings (on its southern extent) and scattered trees, bordering the site on its western and south-eastern boundary. A small portion of degraded and transformed open space separates the site from the properties to its north. The proposed land-use is in line with the existing approved land-use rights of the site.

The subject property is in addition, according to a GIS desktop study not affected by any sensitive habitats, and/or features including watercourses, wetland habitat, ridges or irreplaceable sites.

Please refer to:

- Figure 4- Irreplaceable Sites Map;
- Figure 5- Ridges Map;
- Figure 6- Hydrology Map; and
- Figure 7- Ecological Protection Map



N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility- Figure 4: Irreplaceable Sites Map



N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility- Figure 5: Ridges Map

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

National Water Act, 1998 (Act No. 36 of 1998) (NWA)	National	20 August 1998
<p>The purpose of this Act is to ensure that the nation's water resources are protected, used, developed, conserved, managed and controlled in ways that take into account, amongst other factors, the following:</p> <ul style="list-style-type: none">▪ Meeting the basic human needs of present and future generations;▪ Promoting equitable access to water;▪ Promoting the efficient, sustainable and beneficial use of water in the public interest;▪ Reducing and preventing pollution and degradation of water resources;▪ Facilitating social and economic development; and▪ Providing for the growing demand for water use. <p>In terms of Section 21 of the National Water Act, the developer must obtain water use licenses if the following activities are taking place:</p> <ul style="list-style-type: none">a) Taking water from a resource;b) Storing water;c) Impeding or diverting the flow of water in a water course;d) Engaging in a stream flow reduction activity contemplated in Section 36;e) Engaging in a controlled activity identified as such in Section 37(1) or declared under Section 38(1)f) Discharging waste or water containing waste into a water resource through a pipeline, canal, sewer, sea outfall or other conduit;g) Disposing of waste in manner which may detrimentally impact on a water resource;h) Disposing in any manner which contains waste from or which has been heated in any industrial or power generation process;i) Altering the beds, banks, course or disposing of water found underground if it is necessary for the safety of people;j) Removing, discharging, or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people; andk) Using water for recreational purposes. <p>The National Water Act (Section 144) also requires that (where applicable) the 1:50 and 1:100 year flood line be indicated on all the development drawings that are submitted for approval.</p> <p><i>(Please refer to Figure 9- Hydrology map)</i></p>		



Implications for proposed:

Not significant- The subject property is according to a GIS desktop study not affected by any watercourse and/or not located within 100m from any watercourse, or within 500 m from any wetland habitat as defined in terms of the National Water Act, 1998. The proposed project activity does not fall within the ambit of any listed activity as per Section 21 of the NWA, and thus no Water Use License (WUL) application is this deemed required.

National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA)	National	April 1965
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The NHRA, 1999 list development activities for various categories of development stipulated in Section 38(1) of the Act, that require authorisation by the relevant heritage resources authority. The Act furthermore requires that a person who intends to undertake a listed activity notify the relevant provincial heritage authority at the very earliest stages of initiating such an activity. The relevant provincial authority shall then in turn, notify the person whether a Heritage Impact Assessment (HIA) should be conducted and submitted for the study area affected by proposed development.

No person may further, in terms of Section 35(4) of the NHRA, without a permit issued by the responsible heritage resources authority, destroy, damage, excavate, alter or remove from its original position, or collect, any archaeological material or object. In terms of Section 36(3) of the Act, no person may, without a permit issued by the responsible heritage resources authority destroy, damage, alter exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years, which is situated outside a formal cemetery administered by a local authority. Section 38, in

particular makes provision of application for permits before any heritage resource may be damaged or destroyed.

Implications for proposed development:

Significant- The development proposal does fall within the ambit of a listed activity as per Section 38(1) of the NHRA, 1999. Specific reference is made to **Section 38(1)(c)- any development or other activity which will change the character of a site:**

-(i) exceeding 5000 m² in extent

The South African Heritage Resources Agency (SAHRA) has been notified of the project proposal in terms of Section 38(1), and as such comments have been supplied, in respect on such notification **(Please refer to Appendix E4 for the attached comments)**. No notification and/or instruction has however in terms Section 38(2) of the NHRA been received from SAHRA to conduct/submit a HIA report for the project proposal. Furthermore, due to the developed and transformed state of the subject property, it was not deemed necessary to conduct any specialist HIA Reports as provide for in Section 38 of the NHRA, 1999.

No significant cultural/historical resources/features were identified to be present at the study area, and therefore it is subsequently anticipated that the impact on any cultural resources are regarded as low to null. If any remains/cultural resources are exposed or uncovered during the construction phase, it should immediately be reported to the South African Heritage Resources Agency (SAHRA). Burial remains should not be disturbed or removed until inspected by an archaeologist.

The Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983)

National

June 1983

The Act provides for the control over the utilisation of Natural Agricultural resources of South Africa, in order to promote the conservation of soil, water sources and vegetation, as well as combating of weeds and invader plants and for matters connecting therewith.

Implications for proposed development:

Not Significant- The subject property is according to the Gauteng Agriculture potential Atlas (GAPA-3) deemed to have a low to no, Agriculture Potential. **(Please refer to figure 8- Agriculture Potential Map)** Bokamoso is subsequently of the opinion, taking the current size, the developed and transformed state of the



N.N. Metals (Pty) Ltd Wankoo Metal Reclamation Facility- Figure 8: Agriculture Potential Map

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

<p>subject property, and its strategic location within an area zoned for industrial purposes into consideration, it would not be viable to utilize the site alternatively for the purpose of agriculture.</p>		
The Noise Control Regulations	National	1992
<p>The National Noise-Control Regulations (NCR) (GN R154 in Government Gazette No. 13717 dated 10 January 1992) was promulgated in terms of Section 25 of the Environmental Conservation Act (ECA) of 1989. The NCR were revised under GN R. 55 of 14 January 1994 to make it compulsory for all authorities to apply these regulations. With the decentralisation of regulatory power from National (governmental) to Provincial level in 1994, the authority to promulgate noise regulations was ceded to provinces¹. Each province could thus subsequently decide whether to develop their own regulations, or adopt and adapt the National Noise Control Regulations. As far, only three provinces, namely the Western-Cape, Free State and Gauteng Province has developed and promulgated provincial noise regulations. The latter, was promulgated in 1999, namely GN 5479 of 1999.</p>		
Red Plant Species Guidelines	Provincial	26 June 2006
<p>The purpose of these guidelines is to promote the conservation of Red List Plant Species in Gauteng, which are species of flora that face risk of extinction in the wild. By protecting Red List Plant Species, conservation of diverse landscapes is promoted which forms part of the overall environmental preservation of diverse ecosystems, habitats, communities, populations, species and genes in Gauteng.</p> <p>These Guidelines are intended to provide a decision-making support tool to any person or organization that is responsible for managing, or whose actions affect, areas in Gauteng where populations of Red List Plant Species grow, whether such person or organization be an organ of state or private entity or individual; thereby enabling the conservation of the Red List Plant Species that occur in Gauteng.</p> <p>Implications for proposed development:</p> <p>Not Significant- The subject property is located within an existing industrial node, and is at present in a developed and transformed state, with some existing buildings (on its southern extent) and scattered trees bordering the site on its western and south-eastern boundary. A small portion of degraded and transformed open space separates the site from the properties to its North.</p>		
GDARD Draft Ridges Policy	Provincial	2007
<p>This policy is provided for the protection, conservation and maintenance of ridges within the Gauteng Province. Ridges play an important role in biodiversity and ecosystem functioning as they provide niche habitats for a number of species. Ridges must be viewed as playing a critical role in the preservation of migratory corridors for faunal and floral species.</p> <p>Implications for proposed development:</p> <p>Not Significant- The subject property is according to a GIS desktop study not affected by any ridge or transformed ridge, and thus therefore the policy will not have to be considered. <i>(Please refer to Figure</i></p>		

¹ In terms of Schedule 5 of the Constitution of South Africa of 1996, the legislative responsibility for administering the noise control regulations was decentralised to provincial and local authorities.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

5- Ridges Map)		
Draft Policy on the protection of Agricultural Land, 2006	Provincial	2006
<p>GDARD identified 7 Agricultural Hubs in Gauteng Province. These hubs are earmarked for agricultural activities and there are policies and guidelines that should be taken into consideration when one plans to develop in these hubs areas. Urban development is usually not supported in these hubs.</p> <p>Implications for proposed development</p> <p>Not Significant- The subject property is not situated within any of the 7 agricultural hubs identified for the Gauteng Province.</p>		
The Gauteng Noise Control Regulations, 1999	Provincial	1999
<p>The Gauteng Noise Control Regulations (Noise Control Regulations of the ECA, 1989) was promulgated in 1999.</p> <p>The regulation defines:</p> <p>“Controlled area”:</p> <p>-means any piece of land designated by a local authority where, in the case of-</p> <p>(c) Industrial noise in the vicinity of an industry-</p> <p>(i) The reading on an integrating impulse sound level meter, taken outdoors at the end of a period of 24 hours while such metre was in operation, exceeds 60 dBA; or</p> <p>(ii) The calculated outdoor equivalent continuous “A”-weighted sound pressure level at a height of at least 1.2 metres, but not more than 1.4 metres, above the ground for a period of 24 hours, exceeds 60dBA</p> <p>A “disturbing” noise is defined as a noise level that caused the ambient noise level to rise above the designated zone level, or if no zone level has been designated, the typical rating levels for ambient noise in districts, as indicated in Table 2 of SABS 0103- <i>The Measurement and Assessment of Environmental Noise with respect to Annoyance and Speech Communication</i>.</p>		
Noise Standard: South African National Standards (SANS) 10103	National Standard	2008
<p>Monitoring and assessment of noise emissions are, as mentioned before done according to SANS 10103 (<i>The measurement and rating of environmental noise with respect to annoyance and to speech communication</i>) and SANS 10328 (<i>Methods for environmental noise impact assessments</i>).</p> <p>SANS 10103 provide for the method and guidelines to assess the working and living environments with respect to acoustical comfort, excellence, and with respect to possible annoyance by noise. It in addition provide for the method to predict speech communication efficiency. SANS 10103 essentially stipulate maximum noise levels for residential and non-residential areas, and/or recommend maximum ambient</p>		

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

noise levels in various districts which may not be exceeded. *Table 3, below summarises the SANS 10103 criteria for acceptable ambient noise levels in various districts.*

Table 3: Typical rating levels for noise in various districts (as per SANS 10103:2008)

Type of district	Equivalent Continuous Rating level for noise (L _{REQ,T}) (dBA)					
	Outdoors			Indoors		
	Day/Night	Day/Time	Night/Time	Day/Night	Day/Time	Night/Time
a) Rural	45	45	35	35	35	25
b) Suburban (with little road traffic)	50	50	40	40	40	30
c) Urban	55	55	45	45	45	35
d) Urban-With some workshops, business premises and main roads	60	60	50	50	50	40
e) Central Business Districts	65	65	55	55	55	45
f) Industrial Districts	70	70	60	60	60	50

Implications for proposed development:

Significant-

Acusolv, Acoustical Consulting Engineers has been appointed as an independent acoustical engineer consultant to conduct a Noise Impact Assessment (Assessment of compliance with the City of Tshwane Noise Regulations) for the proposed MRF (*Please refer to Appendix G for the attached report*). Key objectives of the assessment include:

- Establishment and quantification of the noise emissions generated by the existing N.N. Metals (Pty) Ltd Koedoespoort Facility, and the Eldan Recycling Plant Component, at the new Waitloo Facility;
- Assessment of the noise impact at identified noise sensitive receptors in terms of SANS 10103; and
- Provide for recommendations regarding noise mitigation procedures and measures.

➤ **Noise assessment methodology:**

Site evaluations and noise tests were the predominant methodology applied to assess the noise emissions to be associated with the operation of the proposed MRF. Specific reference is made to:

- Site inspections were conducted at the existing Koedoespoort facility to assess the nature of current operations, and at the location of the new facility. The said

inspections were furthermore aimed at establishing the acoustical nature and noise sensitivity of the immediate surrounding and receiving environment in Waltloo;

- Noise tests were conducted over a period of 2 hours at the Koedoespoort facility to establish the characteristic noise levels to be associated with normal work operations/activities produced at the nearest property boundaries; and
- Noise tests were in addition conducted at the new Waltloo facility to probe the existing noise levels of the area, and to obtain noise data for the new specialised Eldan Recycling Plant, which is currently, undergoing commissioning tests, calibration.

➤ **Findings of the noise assessment:**

Site context:

It should be noted that the subject property are at present located within an industrial area (**Use Zone 10: Industrial 1**), which is surrounded by similar land-uses. (*Please refer to Appendix J for the attached zoning certificate in terms of the Tshwane Town-Planning Scheme, 2008*)

The property is approximately 600m from the nearest residential boundaries, but due to the buffer created by the surrounding industrial buildings no direct line-of-sight is created. The specialist subsequently identified potential sensitive receptors to be limited to the industrial premises, immediately adjacent to the study area.

The study area is in terms of SANS 10103 criteria rated as an **industrial district**, and thus as operations will be limited to day-time hours, the acceptable ambient noise level according to the aforementioned SANS guidelines is **70 dBA**.

Expected noise levels to be associated with N.N. Metals current and new operations:

-Expected noise levels: Koedoespoort- activities to be relocated to Waltloo:

Upon the measurements taken during the 120 min period during the normal course of operations at the existing Koedoespoort facility, noise levels at the boundaries of the Waltloo (new) premises are expected to vary between 59 and 67 dBA, with a typical level of **65 dBA**. The specialist subsequently indicated that the impact of general work activities to be transferred from the Koedoespoort site to Waltloo will be negligible.

-Expected noise levels: Waltloo- additional noise sources:

The addition of the specialised Eldan Recycling Plant, and the generator which is used to provide the necessary electricity for the said plant, will create new sources of noise at the Waltloo premises. The specialist established during the site measurement and assessment that both of the mentioned sources did individually and collectively **exceed the 70dBA** limit along a section of the eastern property boundary by a considerable margin.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Summary and conclusions:

It was established, that the noise emissions as a result of general operational activities which is to be relocated to the Waltloo facility, are below the acceptable 70dBA, and thus are deemed to be insignificant. No specific measures were thus recommended by the specialist, to mitigate and/or lower the noise levels associated with normal operational activities.

It should on the other hand be noted that, it was established that the noise emissions generated by the specialised recycling plant, and generator was found to exceed the acceptable 70dBA, by a considerable margin, and thus the specialist recommended a number of facility design measures to be implemented, in order to allow for the required reduction of noise levels. The implementation of the measures stipulated would essentially provide for the reduction of noise levels at the nearest property boundary to below the required 70dBA. **Table 4 summarises the expected level of noise, from the main sources of noise along the sections of the Waltloo property boundaries.**

Table 4: N.N Metals Plant Noise-Unmitigated noise levels expected at the nearest boundary

Source of Noise	Noise level at boundary dBA	Excess
General plant operation	65	(not applicable)
Eldan Recycling plant	81	+11
Generator	94	+24

3. ALTERNATIVES

Describe the proposal and 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. The determination of whether the 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.

The no-go option must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. Do not include the no go option into the alternative table below.

Note: 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.

Provide a description of the alternatives considered

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other (provide details of "other")	Description
1	Proposal (Process/Technology)	<p>The proposed N N Metals (Pty) Ltd Waltloo Metal Reclamation Facility, to be established on the remaining extent of erf 110, Waltloo Township, Registration Division JR, Gauteng Province, with the addition of a specialised non-ferrous metal (Eldan) recycling plant, which would essentially separate non-ferrous metals from non-metallic materials.</p> <p>The specialised process is specifically designated to accommodate the recovery of non-ferrous metals which forms a component of used cables. The said input material is predominantly sourced from the electrical services and telecommunication industries</p> <p><i>(Please refer to Appendix J for the process overview of the proposed MRF and for the process overview of the Eldan Recycling Plant)</i></p>

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

2	Alternative (Process/Technology)	<p>The proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility, to be established on the remaining extent of erf 110, Waitloo Township, Registration Division JR, Gauteng Province.</p> <p>The proposed MRF to include an alternative non-ferrous metals recovery process, as to the use of a specialised non-ferrous metal (Eldan) Recycling Plant. It is proposed as an alternative to recover and sort the non-ferrous metal(s) from the used cables manually, instead of a specialised mechanical process.</p> <p><i>(Please refer to Appendix J for the process overview of the proposed MRF)</i></p>
	Please take note that no alternative sites have been identified for the proposed MRF	

In the event that no alternative(s) has/have been provided, a motivation must be included in the table below.

Please take note that no alternative sites (on a regional scale) for the proposed MRF has been identified, as the existing site is in a developed and transformed state, and located within an existing industrial node. The subject property is in addition also currently owned by the applicant, N.N. Metals (Pty) Ltd.

NOTE: The numbering in the above table must be consistently applied throughout the application report and process

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the total physical size (footprint) of the proposal as well as alternatives. Footprints are to include all new infrastructure (roads, services etc), impermeable surfaces and landscaped areas:

Proposed activity

Size of the activity:

1,2328 ha

Alternatives:

Alternative 1 (Proposal)

1,2328 ha

Alternative 2

1,2328 ha

Ha/ m²

or, for linear activities:

Proposed activity

Length of the activity:

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

k/km

Indicate the size of the site(s) or servitudes (within which the above footprints will occur):

Proposed activity

Size of the site/servitude:

1,2328 ha

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

1,2328 ha

1,2328 ha

Ha/m²

5. SITE ACCESS

Proposal

Does ready access to the site exist, or is access directly from an existing road?

YES	NO
X	
m	

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

Describe the type of access road planned:

Include the position of the access road on the site plan.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Alternative 1

Does ready access to the site exist, or is access directly from an existing road?

YES	NO
X	
_____ m	

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

Describe the type of access road planned:

--

Include the position of the access road on the site plan.

Alternative 2

Does ready access to the site exist, or is access directly from an existing road?

YES	NO
X	
_____ m	

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

Describe the type of access road planned:

--

Include the position of the access road on the site plan.

PLEASE NOTE: Points 6 to 8 of Section A must be duplicated where relevant for alternatives

Section A 6-8 has been duplicated

0

Number of times

(only complete when applicable)

6. SITE OR ROUTE PLAN

A detailed site or route (for linear activities) 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:

- the scale of the plan, which must be at least a scale of 1:2000 (scale can not be larger than 1:2000 i.e. scale can not be 1:2500 but could where applicable be 1:1500)
- the property boundaries and numbers of all the properties within 50m of the site;
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- the exact position of each element of the application as well as any other structures on the site;
- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, septic tanks, storm water infrastructure and telecommunication infrastructure;
- walls and fencing including details of the height and construction material;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100m of the site or sites including (but not limited thereto):
 - Rivers and wetlands;
 - the 1:100 and 1:50 year flood line;
 - ridges;
 - cultural and historical features;
 - areas with indigenous vegetation (even if it is degraded or infested with alien species);
- for gentle slopes the 1m 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
- the positions from where photographs of the site were taken.
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the 32m position from the bank to be clearly indicated)

(Please refer to Appendix A)

7. SITE PHOTOGRAPHS

Colour photographs from the center 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 the appropriate Appendix. It should be supplemented with additional photographs of relevant features on the site, where applicable.

(Please refer to Appendix B)

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 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. To be attached in the appropriate Appendix.

(Please refer to Appendix C)

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

Note: Complete Section B for the proposal and alternative(s) (if necessary)

Further:

Instructions for completion of Section B for linear activities

- 1) For linear activities (pipelines etc) it may be necessary to complete Section B for each section of the site that has a significantly different environment.
- 2) Indicate on a plan(s) the different environments identified
- 3) Complete Section B for each of the above areas identified
- 4) Attach to this form in a chronological order
- 5) Each copy of Section B must clearly indicate the corresponding sections of the route at the top of the next page.

Section B has been duplicated for sections of the route "insert No. of duplicates" times

Instructions for completion of Section B for location/route alternatives

- 1) For each location/route alternative identified the entire Section B needs to be completed
- 2) Each alternative location/route needs to be clearly indicated at the top of the next page
- 3) Attach the above documents in a chronological order

Section B has been duplicated for location/route alternatives "insert No. of duplicates" times
(complete only when appropriate)

Instructions for completion of Section B when both location/route alternatives and linear activities are applicable for the application

Section B is to be completed and attachments order in the following way

- All significantly different environments identified for Alternative 1 is to be completed and attached in a chronological order; then
- All significantly different environments identified for Alternative 2 is to be completed and attached chronological order, etc.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Section B - Section of Route (complete only when appropriate for above)

Section B - Location/route Alternative No. (complete only when appropriate for above)

IT SHOULD BE NOTED THAT THIS SECTION IS NOT REPEATED, AS THE SAME SITE APPLIES TO THE PROPOSAL AND THE ALTERNATIVES

1. PROPERTY DESCRIPTION

Property description:

Remainning extent of Erf 110, Watloo Township, Registration Division: JR., Gauteng Province. (Please refer to Appendix J for the attached property description)

(Farm name, portion etc.)

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

Alternative:

Latitude (S):	Longitude (E):
25.721215°	28.320905°

In the case of linear activities:

Alternative:

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

Latitude (S):	Longitude (E):
°	°
°	°
°	°

For route alternatives that are longer than 500m, please provide co-ordinates taken every 250 meters along the route and attached in the appropriate Appendix

Addendum of route alternatives attached

3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

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

4. LOCATION IN LANDSCAPE

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

Ridgeline	Plateau	Side slope of hill/ridge	Valley X	Plain	Undulating plain/low hills	River front
-----------	---------	--------------------------	---------------------------	-------	----------------------------	-------------

5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Please refer to Figure 9- Simplified Geology Map

Please refer to Figure 10- Regional Geology Map

Please refer to Figure 11- Soils Map

- a) Is the site located on any of the following?

Shallow water table (less than 1.5m deep)

YES	NO X
-----	-----------------------

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

- Dolomite, sinkhole or doline areas
- Seasonally wet soils (often close to water bodies)
- Unstable rocky slopes or steep slopes with loose soil
- Dispersive soils (soils that dissolve in water)
- Soils with high clay content (clay fraction more than 40%)
- Any other unstable soil or geological feature
- An area sensitive to erosion

YES	NO X
YES	NO X
YES	NO X
YES	NO X
YES	NO X
YES	NO X
YES	NO X

(Information in respect of the above will often be available at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

b) are any caves located on the site(s)

YES	NO X
-----	---------

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S): _____ Longitude (E): _____

c) are any caves located within a 300m radius of the site(s)

YES	NO X
-----	---------

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S): _____ Longitude (E): _____

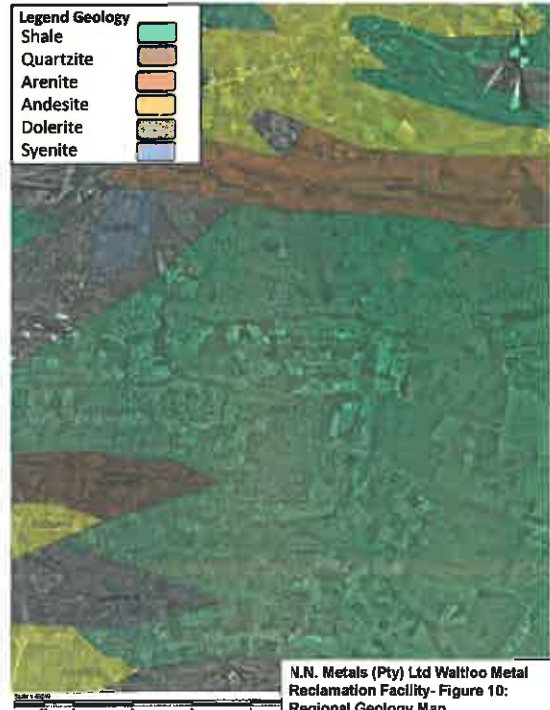
d) are any sinkholes located within a 300m radius of the site(s)

YES	NO X
-----	---------

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S): _____ Longitude (E): _____

If any of the answers to the above are "YES" or "unsure", specialist input may be requested by the Department





6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 3)?

YES	NO X
-----	---------

Please refer to Figure 8- Agriculture Potential Map

Please note: The Department may request specialist input/studies in respect of the above.

7. GROUNDCOVER

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

Indicate the types of groundcover present on the site and include the estimated percentage found on site

Natural veld - good condition % =	Natural veld with scattered aliens % =	Natural veld with heavy alien infestation % =	Veld dominated by alien species % =	Landscaped (vegetation) % =2%
Sport field % =	Cultivated land % =	Paved surface (hard landscaping) % =85%	Building or other structure % =12%	Bare soil % =

Please note: The Department may request specialist input/studies depending on the nature of the groundcover and potential impact(s) of the proposed activity/ies.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Are there any rare or endangered flora or fauna species (including red list species) present on the site

YES	NO X
-----	---------

Please refer to Appendix I (iii) E-mail requesting Biodiversity Information /specialist biodiversity assessment requirements, and Appendix I (iv) GDARD Biodiversity Information/Specialist biodiversity assessment requirements

If YES, specify and explain:

Are there any rare or endangered flora or fauna species (including red list species) present within a 200m (if within urban area as defined in the Regulations) or within 600m (if outside the urban area as defined in the Regulations) radius of the site.	YES	NO X
--	-----	---------

If YES, specify and explain:

Are there any special or sensitive habitats or other natural features present on the site?	YES	NO X
--	-----	---------

If YES, specify and explain:

Was a specialist consulted to assist with completing this section	YES	NO X
---	-----	---------

If yes complete specialist details

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

Are any further specialist studies recommended by the specialist?	YES	NO
---	-----	----

If YES, specify:		
------------------	--	--

If YES, is such a report(s) attached?	YES	NO
---------------------------------------	-----	----

If YES list the specialist reports attached below

--	--	--

Signature of specialist: _____ Date: _____

Please note; If more than one specialist was consulted to assist with the filling in of this section then this table must be appropriately duplicated



8. LAND USE CHARACTER OF SURROUNDING AREA



Using the associated number of the relevant current land use or prominent feature from the table below, fill in the position of these land-uses in the vacant blocks below which represent a 500m radius around the site

1. Vacant land	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	7. Agriculture	8. Low density residential	9. Medium to high density residential	10. Informal residential
11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	15. Light Industrial
16. Heavy industrial ^{AN}	17. Hospitality facility	18. Church	19. Education facilities	20. Sport facilities
21. Golf course/polo fields	22. Airport ^N	23. Train station or shunting yard ^N	24. Railway line ^N	25. Major road (4 lanes or more) ^N
26. Sewage treatment plant ^A	27. Landfill or waste treatment site ^A	28. Historical building	29. Graveyard	30. Archeological site
31. Open cast mine	32. Underground mine	33. Spoil heap or slimes dam ^A	34. Small Holdings	
Other land uses (describe):				

NOTE: Each block represents an area of 250m X250m

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

NORTH

	1/14/15/ 24	9/14/15/ 12/24/25	9/14/15/ 23/24/25	9/14/15/ 12/24/25	14/15/24/ 25	 = Site	
	1/14/15/ 24	14/15/24	14/15/24	14/15/24	14/15/24		
WEST	1/14/15	14/15		14/15	14/15		EAST
	1/16/24	1/14/24	14/15/24	14/15/24	14/15/24		
	1/15/16	1/14/15	14/15	14/15	14/15/25		

SOUTH

Note:
than one (1) Land-use may be indicated in a block

More

Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity/ies. Specialist reports that look at health & air quality and noise impacts may be required for any feature above and in particular those features marked with an "A" and with an "N" respectively.

Have specialist reports been attached

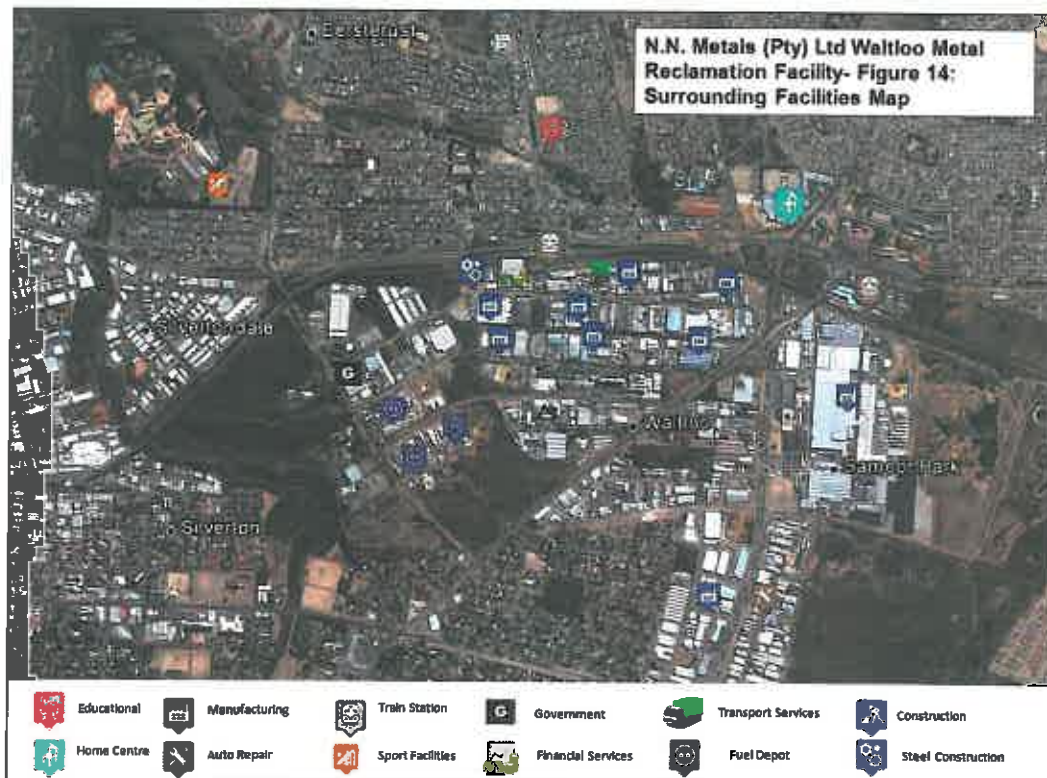
YES	NO
	X

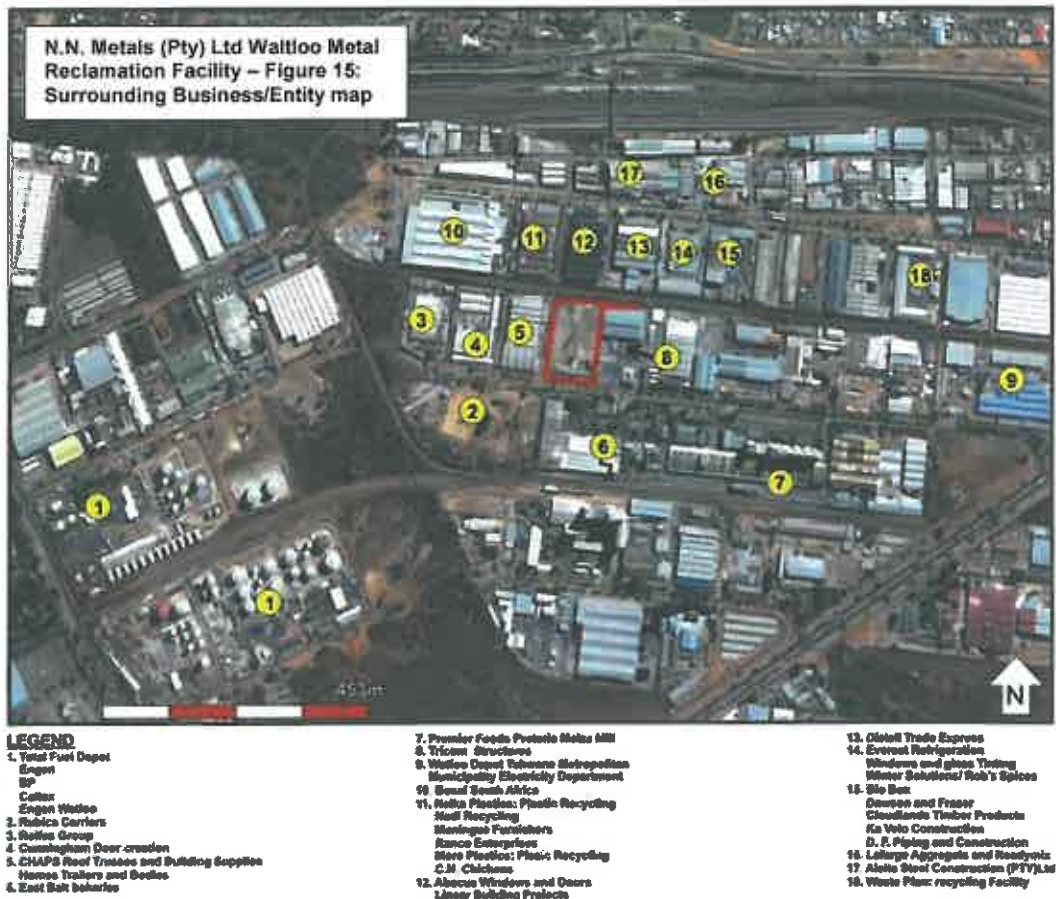
If yes indicate the type of reports below

--

Please refer to Figure 12 for the surrounding land-use map (Local Context)
Please refer to Figure 13 for the surrounding land-use map (Regional Context)
Please refer to Figure 14 for the surrounding facilities map
Please refer to Figure 15 for the surrounding business/entity map







9. SOCIO-ECONOMIC CONTEXT

Describe the existing social and economic characteristics of the area and the community condition as baseline information to assess the potential social, economic and community impacts.

The proposed N N Metals Wattloo MRF is to be located in the Wattloo/Silverton Industrial Node, within the jurisdiction of the CoT. The CoT is at present classified as a Category A, grade 6 Urban Municipality, by the Municipal Demarcation Board in terms of Section 4 of the Local Government Municipal Structures Act, 1998 (Act No. 117 of 1998).

The CoT is approximately 6 368 km² in extent, with 2.5 million residents, which makes it the third largest city in terms of land-area after New York and Tokyo. The city's principle sectors which contribute towards the South African economy include:

- Services 70%,
- Commerce 13%,
- Industry 2%; and
- Other 2%.

CoT consists of 7 planning regions, each with its own unique characteristics. The proposed MRF is to be located in Region 6, of which amongst others include the Waltloo/Silverton Industrial Node. The Waltloo/Silverton Industrial node is predominantly characterised by light, industries, manufacturing, and warehousing. The proposed development site, is locally surrounded by industrial and light industrial land-uses, and industrial facilities for manufacturing and storage, of which include well-known companies and brands such as:

- Bosal South Africa,
- Premier Foods Pretoria Maize Mill,
- Tricom Structures,
- Lafarge Aggregates and Ready-mix,
- East Balt Bakery,
- The Sasol/BP Fuel Depot, and
- Transnet Multi Product Pipeline Terminal

The proposed development site is furthermore in close proximity to existing waste management and recycling facilities of which include, The Waste Plan, Neika Plastic Recycling, Nadi Recycling and More Plastic Recycling

The Waltloo industrial node is on a more regional scale mostly surrounded by residential areas, and agricultural small holdings, of which Meyers Park to the South, Eesterust to the North, and Mameledi to the north-east

10. CULTURAL/HISTORICAL FEATURES

Please be advised that if section 38 of the National Heritage Resources Act 25 of 1999 is applicable to your proposal or alternatives, then you are requested to furnish this Department with written comment from the South African Heritage Resource Agency (SAHRA) – Attach comment in appropriate annexure

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-

- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;*
- (b) the construction of a bridge or similar structure exceeding 50m in length;*
- (c) any development or other activity which will change the character of a site-*
 - (i) exceeding 5 000 m2 in extent; or*
 - (ii) involving three or more existing erven or subdivisions thereof; or*
 - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or*
 - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;*
- (d) the re-zoning of a site exceeding 10 000 m2 in extent; or*
- (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.*

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

YES	NO X
-----	---------

If YES, explain:

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

If uncertain, the Department may request that specialist input be provided to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist if one was already appointed:

Will any building or structure older than 60 years be affected in any way?
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999
(Act 25 of 1999)?

YES	NO
YES	NO

If yes, please attached the comments from SAHRA in the appropriate Appendix

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The Environmental Assessment Practitioner must follow any relevant guidelines adopted by the competent authority in respect of public participation and must at least –

- 1(a) Fix a site notice at a conspicuous place, on the boundary of a property where it is intended to undertake the activity which states that an application will be submitted to the competent authority in terms of these regulations and which provides information on the proposed nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations on the application may be made;
- 1(b) inform landowners and occupiers of adjacent land of the applicant's intention to submit an application to the competent authority;
- 1(c) inform landowners and occupiers of land within 100 metres of the boundary of the property where it is proposed to undertake the activity and whom may be directly affected by the proposed activity of the applicant's intention to submit an application to the competent authority;
- 1(d) inform the ward councillor and any organisation that represents the community in the area of the applicant's intention to submit an application to the competent authority;
- 1(e) inform the municipality which has jurisdiction over the area in which the proposed activity will be undertaken of the applicant's intention to submit an application to the competent authority; and
- 1(f) inform any organ of state that may have jurisdiction over any aspect of the activity of the applicant's intention to submit an application to the competent authority; and
- 1(g) place an advertisement in one local newspaper and any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of these regulations.

2. LOCAL AUTHORITY PARTICIPATION

Local 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. The planning and the environmental sections of the local authority must be informed of the application at least thirty (30) calendar days before the submission of the application to the competent authority (GDARD).

Has any comment been received from the local authority?

YES	NO
X	

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

The following comments have been obtained from the involved local authority, the City of Tshwane, Environmental Management Department in relation to the Draft BAR (*Please refer to Appendix*)

The City of Tshwane (CoT) indicated that they have no objection to the Draft BAR, subjected to the consideration of the following recommendations:

The Department recommends that the following issues be taken into consideration:

- A Stormwater Management Plan must be included in the Final Basic Assessment Report and should aim to prevent pollution, erosion and siltation during both the construction and operational phases. *Refer to Appendix G for the Stormwater Management Plan.*
- All the mitigation measures indicated in the Draft BAR must be adhered to at all time – *noted all mitigation measures will be incorporated as part of the EMPr;*
- The construction and functioning of the activity must comply with the Occupational Health and Safety Standards as set out in the Occupational Health and Safety Act No. 85 of 1993 at all times – *this condition will be included as part of the EMPr;*
- The proposed precautionary measures contained in the Noise Assessment Report for noise generated from the shredder and the generator must be effectively applied and monitored in order to reach environmentally acceptable noise levels – *this condition will be included as part of the EMPr;*
- The proposed activity must be constructed and functioned according to the final approved

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

EMP. The approved finalised EMP is a legally binding document. An Environmental Control Officer (ECO) should be appointed for the proposed construction phase of the development to enforce the approved EMP. The ECO will have a site visit report where activity evaluation will be completed. Should any discrepancies or deviations from the approved EMP arise during construction, the ECO will be responsible to indicate this within the report. Site visit reports should be regularly submitted to this Department (CoT) for perusal. **Noted – the EMP will also incorporate this requirement.**

If "NO" briefly explain why no comments have been received

3. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the activity, site or property, such as servitude holders and service providers, should be informed of the application at least thirty (30) calendar days before the submission of the application and be provided with the opportunity to comment.

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):

A Public Participation Process (PPP) has been facilitated in terms of Regulation 54, 55, 56 and 57 of the 2010 EIA Regulations (GN. R 543). The public, surrounding land-owners, affected parties and local authorities has been notified of the proposed MRF through:

- A site notice(s) erected at a prominent point(s) at the application site (**Please refer to Appendix E1**);
- A public notice was distributed to surrounding land-owners on 16 and 17 July 2012 (**Please refer to Appendix E2**);
- A public notice was forwarded on 13 July 2012 to the following authorities and stakeholders (**Please refer to Appendix E2**)
 - o Department of Water Affairs,
 - o Department of Environmental Affairs,
 - o The South African Heritage Resources Agency (SAHRA),
 - o Eskom,
 - o Gautrans,
 - o City of Tshwane (CoT),
 - o Rand Water, and
 - o Transnet,
- A Background Information Document (BID) was distributed to registered Interested and Affected Parties (I & AP's) and relevant stakeholders (**Please refer to Appendix E11**)
- An advertisement was placed in the Beeld Newspaper on 18 July 2012 (**Please refer to Appendix E3**)
- A meeting was held between NN metals, Tricom and Bokamoso on 15 May 2013 in order to discuss the issues raised by Tricom. All issues listed by Tricom were addressed.

All comments from registered I & AP's have been included in the comments and response report, and the subsequent response thereto *(Please refer to Appendix E6 for the attached report)*

if "NO" briefly explain why no comments have been received

4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

The Environmental Assessment 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 and ratepayers associations. 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.

The practitioner must record all comments and respond to each comment of the public / interested and affected party before the application is submitted. The comments and responses must be captured in a Comments and Responses Report as prescribed in the regulations and be attached to this application.

5. APPENDICES FOR PUBLIC PARTICIPATION

All public participation information is to be attached in the appropriate Appendix. The information in this Appendix is to be ordered as detailed below

Appendix 1 – Proof of site notice

Appendix 2 – Written notices issued to those persons detailed in 1(b) to 1(f) above

Appendix 3 – Proof of newspaper advertisements

Appendix 4 – Communications to and from persons detailed in Point 2 and 3 above

Appendix 5 – Minutes of any public and/or stakeholder meetings

Appendix 6 - Comments and Responses Report

Appendix 7 –Comments from I&APs on Basic Assessment (BA) Report

Appendix 8 –Comments from I&APs on amendments to the BA Report

Appendix 9 – Copy of the register of I&APs

Appendix 10 – Comments from I&APs on the application

Appendix 11 - Other

SECTION D: RESOURCE USE AND PROCESS DETAILS

Note: Section D is to be completed for the proposal and alternative(s) (if necessary)

Instructions for completion of Section D for alternatives

- 1) For each alternative under investigation, where such alternatives will have different resource and process details (e.g. technology alternative), the entire Section D needs to be completed
- 4) Each alternative needs to be clearly indicated in the box below
- 5) Attach the above documents in a chronological order

Section D has been duplicated for alternatives 2 times
(complete only when appropriate)

Section D Alternative No. 1 (Proposal: Process/Technology) (complete only when appropriate for above)

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management

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

YES X	NO
Not Available (N/A) m ³	

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

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

Construction solid waste will be disposed of by the Waste Group. (Please refer to Appendix F (i) for their attached confirmation letter)

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

Construction solid waste generated to be disposed of by the Waste Group at their permitted landfill facility, at Bon Accord, which is a GLE Facility.

Will the activity produce solid waste during its operational phase?

YES X	NO
(N/A) m ³	

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

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

General Solid Waste will be disposed of by the Waste Group at their permitted landfill facility, at Bon Accord. General compactable waste will be removed on a weekly basis by the Waste Group (1 x 6m³ REL, serviced 1 x per week)

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity?

YES X	NO
----------	----

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

Note: 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, 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
----------	----

It is anticipated that the proposed Waltloo MRF will generate a limited amount of hazardous waste due to operation such as:

- Hydrocarbons (spent oil, greases, oil containers, and other contaminated material);
- Domestic hazardous waste (Fluorescent tubes, light bulbs, batteries, paint etc); and
- Chemicals.

EnviroServ Waste Management (Pty) Ltd confirmed their provision of services for the transportation, disposal and chemical treatment of the hazardous waste items generated by the proposed N.N. Metals Waltloo MRF.

(Please refer to Appendix F (ii) for their attached confirmation)

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 X	NO
----------	----

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

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.

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

The activity which is applied for is a proposed metal (non-ferrous and ferrous) reclamation facility (general waste), whereby non-ferrous and ferrous metals will be purchased from a number of suppliers and vendors. All metals received and recycled on site will be sold to foundries for re-use.

It should be noted that all general and hazardous waste generated by the facility will be managed and disposed of by a suitably qualified and registered service provider. No additional measures to ensure the optimal reuse or recycling of materials will therefore be applied.

Liquid effluent (other than domestic sewage)

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

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

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

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)?

YES	NO
-----	----

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

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

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

If yes describe the nature of the effluent and how it will be disposed.

Note that if effluent is to be treated or disposed on site 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 <input checked="" type="checkbox"/>
-----	---

If yes, provide the particulars of the facility:

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

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

Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?

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

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

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)?

YES <input checked="" type="checkbox"/>	NO
--	----

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

YES	NO <input checked="" type="checkbox"/>
-----	---

If yes describe how it will be treated and disposed off.

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

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

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

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

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

2. WATER USE

Indicate the source(s) of water that will be used for the activity

Municipal <input checked="" type="checkbox"/>	Directly from water board	groundwater	river, stream, dam or lake	other	the activity will not use water
---	---------------------------	-------------	----------------------------	-------	---------------------------------

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:

liters

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix

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

YES NO

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

If yes, list the permits required

--

If yes, have you applied for the water use permit(s)?

YES	NO
YES	NO

If yes, have you received approval(s)? (attached in appropriate appendix)

3. POWER SUPPLY

Please indicate the source of power supply eg. Municipality / Eskom / Renewable energy source

Power/Electricity will be obtained from the local authority, service provider: City of Tshwane (Please refer to Appendix F(iii) for the attached confirmation)

If power supply is not available, where will power be sourced from?

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4. ENERGY EFFICIENCY

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

No specific design measures has been taken, or is proposed and/or planned for the proposed MRF.

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

No alternative energy resources have been taken into account and/or incorporated as part of the facility.

Section D Alternative No.

2 (Alternative: Process/Technology)

(complete only when appropriate for above)

5. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management

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

YES	NO
X	
Not Available (N/A) m ³	

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

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

Construction solid waste will be disposed of by the Waste Group. (Please refer to Appendix F (i) for their attached confirmation letter)

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

Construction solid waste generated to be disposed of by the Waste Group at their permitted landfill facility, at Bon Accord, which is a GLB Facility.

Will the activity produce solid waste during its operational phase?

YES	NO
X	
(N/A) m ³	

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

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

General Solid Waste will be disposed of by the Waste Group at their permitted landfill facility, at Bon Accord. General compactable waste will be removed on a weekly basis by the Waste Group (1 x 6m³ REL, serviced 1 x per week)

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity?

YES	NO
X	

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

--

Note: 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, 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	NO
X	

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

It is anticipated that the proposed Waitloo MRF will generate a limited amount of hazardous waste due to operation such as:

- Hydrocarbons (spent oil, greases, oil containers, and other contaminated material);
- Domestic hazardous waste (Fluorescent tubes, light bulbs, batteries, paint etc); and
- Chemicals.

EnviroServ Waste Management (Pty) Ltd confirmed their provision of services for the transportation, disposal and chemical treatment of the hazardous waste items generated by the proposed N.N. Metals Waitloo MRF.
(Please refer to Appendix F (ii) for their attached confirmation)

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 X	NO
----------	----

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.

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

The activity which is applied for is a proposed metal (non-ferrous and ferrous) reclamation facility (general waste), whereby non-ferrous and ferrous metals will be purchased from a number of suppliers and vendors. All metals received and recycled on site will be sold to foundries for re-use.

It should be noted that all general and hazardous waste generated by the facility will be managed and disposed of by a relevant service provider. No additional measures to ensure the optimal reuse or recycling of materials will therefore be applied.

Liquid effluent (other than domestic sewage)

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

YES	NO X
-----	---------

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

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)?

YES	NO
-----	----

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

Yes	NO X
-----	---------

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

If yes describe the nature of the effluent and how it will be disposed.

Note that if effluent is to be treated or disposed on site 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:			
Contact person:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

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

Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?

YES X	NO
----------	----

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

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)?

N/A m ³	
YES X	NO

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

YES	NO X
-----	---------

If yes describe how it will be treated and disposed off.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

YES X	NO
YES X	NO

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

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

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

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6. WATER USE

Indicate the source(s) of water that will be used for the activity

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

liters

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix

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

YES	NO
-----	----

If yes, list the permits required

--

If yes, have you applied for the water use permit(s)?

YES	NO
-----	----

If yes, have you received approval(s)? (attached in appropriate appendix)

YES	NO
-----	----

7. POWER SUPPLY

Please indicate the source of power supply eg. Municipality / Eskom / Renewable energy source

Power/Electricity will be obtained from the local authority, service provider: City of Tshwane (Please refer to Appendix F (iii) for the attached confirmation)

If power supply is not available, where will power be sourced from?

--

8. ENERGY EFFICIENCY

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

No specific design measures has been taken, or is proposed and/or planned for the proposed MRF.

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

No alternative energy resources have been taken into account and/or incorporated as part of the facility.

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2006, 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

Summarise the issues raised by interested and affected parties.

Please refer to Appendix E6 for the attached comments and response report where all the issues have been listed.

Summary of response from the practitioner to the issues raised by the interested and affected parties
(A full response must be provided in the Comments and Response Report that must be attached to this report):

Please refer to Appendix E6 for the attached comments and response report where all the issues have been discussed.

2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE

Briefly describe the methodology utilised in the rating of significance of impacts

The significance of environmental impacts will be determined using the process outline below:

Significance is the product of probability and severity. Probability describes the likelihood of the impact actually occurring, and is rated as follows:

- **Improbable:** Low possibility of impact to occur either because of design or historic experience
Rating = 2

- **Probable:** Distinct possibility that impact will occur
Rating = 3

- **Highly probable:** Most likely that impact will occur
Rating = 4

- **Definite:** Impact will occur, in the case of adverse impacts regardless of any prevention measures
Rating = 5

The severity factor is calculated from the factors given to "intensity" and "duration". Intensity and duration factors are awarded to each impact, as described below:

The Intensity factor is awarded to each impact according to the following method:

- **Low intensity** Natural and manmade functions not affected
Factor = 1

- **Medium intensity** Environment affected but natural and manmade functions and processes continue
Factor = 2

- **High intensity** Environment affected to the extent that natural or manmade functions are altered to the extent that it will temporarily or permanently cease or become dysfunctional
Factor = 4

Duration is assessed and a factor awarded in accordance with the following:

- **Short term** <1 to 5 years - Factor 2

- High significance (calculated Significance Rating 16 and more)

Positive impact: Should weigh towards a decision to continue, should be enhanced in final Design

Negative impact: Should weigh towards a decision to terminate proposal, or mitigation should be performed to reduce significance to at least medium significance rating.

Please refer to Table 6 for Significance ratings

Significance	Rating	Colour code
Low	4	Yellow
	5	
	6	
Medium	7	Orange
	8	
	9	
	10	
	11	
	12	
	13	
	14	
High	15	Dark Orange
	16<	

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the construction phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

2.1 Significance Assessment:

Please refer below for the calculation and results of the significance assessment of the impacts identified to be associated with the construction and operation of the proposed MRF.

2.1.1 Calculation and Result of the Significance Assessment of Impacts Identified to be associated with the construction phase (Waste Management Facility):

Please refer to table 7 for the calculation and results of the significance assessment of impacts identified to be associated with the construction phase

Beneficial Impacts (Construction Phase)

Alternative 1: (Proposal) Process/Technology

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Table 7-1: Summary of Impact Significance rating- Socio Economic

Environmental Impact:						
Creation of Employment opportunities						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	2	1	2	2	2	4 Positive (Low)
No Mitigation Measures	Beneficial Impact: No mitigation proposed N.N. Metals (Pty) Ltd will use predominantly existing employees, to assist with any waste management facility which will be constructed.					

Table 7-2: Summary of Impact Significance rating- Flora

Environmental Impact:						
The eradication of exotic invaders and weeds on the subject property						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	4	1	2	2	2	8 Positive (Medium)
No Mitigation Measures	Beneficial Impact: No mitigation proposed					

Alternative 2: Process/Technology

Table 7-3: Summary of Impact Significance rating- Socio Economic

Creation of Employment opportunities						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	2	1	2	2	2	4 Positive (Low)
No Mitigation Measures	Beneficial Impact: No mitigation proposed N.N. Metals (Pty) Ltd will use predominantly existing employees, to assist with any waste management facility which will be constructed.					

Table 7-4 : Summary of Impact Significance rating- Flora

The eradication of exotic invaders and weeds on the subject property						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Not Applicable	4	1	2	2	2	8 Positive (Medium)
No Mitigation Measures	Beneficial Impact: No mitigation proposed					

Adverse Impacts (Construction Phase):

Note: The subject property in question is in a developed and transformed state with most of the facilities to be utilized for waste management existing and/or installed/erected on site with only the gantry as per site layout which still needs to be installed and/or erected on site.

Alternative 1: (Proposal) Process/Technology:

Table 7-5: Summary of Impact Significance rating- Surface Hydrology

Environmental Impact:						
Surface Water Pollution						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	2	1	2	2	2	4 Negative (Low)
No Mitigation Measures	Low significance. No mitigation further required. The subject property is per GDARD Conservation-Plan (C-Plan) Version 3.3 not affected by any watercourse and/or located within 100m from any watercourse or within 500m from any wetland habitat as defined in terms of the NWA, 1998.					

Table 7-6: Summary of Impact Significance rating- Sub-surface Hydrology

Environmental Impact:						
Sub-surface water pollution						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	2	1	2	2	2	4 Negative (Low)
No Mitigation Measures	Low significance. No mitigation further required.					

Table 7-7: Summary of Impact Significance rating- Flora

Environmental Impact:						
Loss and/or damage to vegetation, habitat and biodiversity						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	2	1	2	2	2	4 Negative (Low)

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

No Mitigation Measures	Low significance. No mitigation further required.
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Table 7-8: Summary of Impact Significance rating- Ambient Air Quality

Environmental Impact:						
Emissions to Air Air Pollution Dust Fallout Degraded Ambient Air Quality						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	2	1	2	2	2	4 Negative (Low)
No Mitigation Measures	Low significance. No mitigation further required.					

Table 7-9: Summary of Impact Significance rating- Ambient Noise Levels

Environmental Impact:						
Nuisance as a result of noise generated due to construction and installation of the waste management facilities on site						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	2	1	2	2	2	4 Negative (Low)
No Mitigation Measures	Low significance. No mitigation further required.					

Table 7-10: Summary of Impact Significance rating- Health and Safety

Environmental Impact:						
Health and safety risks associated with the construction and installation of the waste management facilities on site						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Without Mitigation	4	2	2	4	2	8 Negative (Medium)
Mitigation Measures	<ul style="list-style-type: none"> • All site and construction workers should wear the necessary Personal Protective Equipment (PPE) (safety helmets, boots, gloves, safety glasses, ear plugs etc.) when working on site during construction; • The contractor shall provide all construction workers with the necessary PPE during construction; • A Health and Safety Officer (HSO) shall be appointed for the duration of the construction phase, to oversee all health and safety aspects, and recommend safety measures were deemed necessary; and • All facilities shall be constructed according to specifications and design, and all work to be supervised by a professional construction manager on site. 					
With Mitigation	3	1	2	2	2	6 Negative (Low)

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Table 7-11: Summary of Impact Significance rating- Vehicle Traffic

Environmental Impact:						
Increase in heavy vehicle/vehicle traffic on Mundi street, Wallies due to construction.						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	2	1	2	2	2	4 Negative (Low)
No Mitigation Measures	Low significance. No mitigation further required.					

Alternative 2: Process/Technology

Table 7-12: Summary of Impact Significance rating- Surface Hydrology

Environmental Impact:						
Surface Water Pollution						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	2	1	2	2	2	4 Negative (Low)
No Mitigation Measures	Low significance. No mitigation further required. The subject property is per GDARD Conservation-Plan (C-Plan) Version 3.3 not affected by any watercourse and/or located within 100m from any watercourse or within 500m from any wetland habitat as defined in terms of the NWA, 1998.					

Table 7-13: Summary of Impact Significance rating- Sub-surface Hydrology

Environmental Impact:						
Sub-surface water pollution						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	2	1	2	2	2	4 Negative (Low)
No Mitigation Measures	Low significance. No mitigation further required.					

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Table 7-14: Summary of Impact Significance rating- Flora

Environmental Impact:						
Loss and/or damage to vegetation, habitat and biodiversity						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	2	1	2	2	2	4 Negative (Low)
No Mitigation Measures	Low significance. No mitigation further required.					

Table 7-15: Summary of Impact Significance rating- Ambient Air Quality

Environmental Impact:						
Emissions to Air: Air Pollution Dust Fallout Degraded Ambient Air Quality						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	2	1	2	2	2	4 Negative (Low)
No Mitigation Measures	Low significance. No mitigation further required.					

Table 7-16: Summary of Impact Significance rating- Ambient Noise Levels

Environmental Impact:						
Nuisance as a result of noise generated due to construction and installation of the waste management facilities on site.						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	2	1	2	2	2	4 Negative (Low)
No Mitigation Measures	Low significance. No mitigation further required.					

Table 7-17: Summary of Impact Significance rating- Health and Safety

Environmental Impact:						
Health and safety risks associated with the construction and installation of the waste management facilities on site.						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Without Mitigation	4	2	2	4	2	8 Negative (Medium)
Mitigation	<ul style="list-style-type: none"> All site and construction workers should wear the necessary Personal 					

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Measures	Protective Equipment (PPE) (safety helmets, boots, gloves, goggles, ear plugs etc.) when working on site during construction; <ul style="list-style-type: none"> • The contractor shall provide all construction workers with the necessary PPE during construction; • A Health and Safety Officer (HSO) shall be appointed for the duration of the construction phase, to oversee all health and safety aspects, and recommend safety measures where deemed necessary; and • All facilities shall be constructed according to specifications and design, and all work to be supervised by a professional construction manager on site. 					
With Mitigation	3	1	2	2	2	6 Negative (Low)

Table 7-18: Summary of Impact Significance rating- Vehicle Traffic

Environmental Impact:						
Increase in heavy vehicle/vehicle traffic on Mundi street, Waitloo due to construction						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	2	1	2	2	2	4 Negative (Low)
No Mitigation Measures	Low significance. No mitigation further required.					

2.1.2 Calculation and Result of the Significance Assessment of Impacts Identified to be associated with the operational phase (Waste Management Facility):

Please refer to table 8 for the calculation and results of the significance assessment of impacts identified to be associated with the Operational phase

Beneficial Impacts (Operational Phase)

Alternative 1: (Proposal) Process/Technology

Table 8-1: Summary of Impact Significance rating- Socio-economic
Table 8-1.1:

Environmental Impact:						
Creation of employment opportunities						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	4	2	2	4	2	8 Positive (Medium)
No Mitigation Measures	Beneficial Impact: No mitigation proposed Existing employees from the N.N Metals Koedoespoort Facility will predominantly be employed at the new Waitloo Facility and thus it is not anticipated that a significant number of new opportunities will be created. The addition of the Eldan Recycling Plant, is regarded as a mechanical process, and would only provide for a limited number of					

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

	<p>new opportunities.</p> <p>Indirect opportunities will also be created, in the metal recovery industry, especially the manufacturers if new products, from recycled steel at foundries etc.</p>
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Table 8-1.2:

Environmental Impact:						
Income (Direct and Indirect) generated as a result of scrap metal sales. Numerous private entities and vendors will generate an income through the sale of ferrous and non-ferrous scrap metals						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	5	4	4	16	5	25 Positive (High)
No Mitigation Measures	Beneficial Impact: No mitigation proposed					

Table 8-1.3:

Environmental Impact:						
Enhanced productivity and efficiency of non-ferrous recovery and recycling as a result of the specialised Eldan Recycling Plant						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	4	4	4	16	5	20 Positive (High)
No Mitigation Measures	Beneficial Impact: No mitigation proposed					

Table 8-1.4:

Environmental Impact:						
Increased profitability due to the enhanced recovery and recycling rate of non-ferrous metals to be associated with the Eldan Recycling Plant						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	4	4	4	16	5	20 Positive (High)
No Mitigation Measures	Beneficial Impact: No mitigation proposed					

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Table 8-2: Summary of Impact Significance rating- Sustainability

Environmental Impact:						
The proposed MRF would provide for, through the recycling and recovery of ferrous and non-ferrous metals, the sustainable management of waste items;						
Through the recovery and recycling of ferrous and non-ferrous metals, less waste items to be disposed of in land-fill, which subsequently reduce the amount of energy consumed to transport un-recycled materials						
The proposed MRF would provide for through the relevant processes for sustainability in the sense that it reduces the amount of natural resources to be used to manufacture ferrous and non-ferrous metals.						
The proposed MRF would provide and contribute towards a reduction in carbon and/or greenhouse gas emissions emitted as a result of the processing of virgin material in the production of ferrous and non-ferrous metals.						
The proposed MRF would provide for a reduction in the pollution to the natural environment (local and regional scale), occurred due to the unsustainable management of waste items, and indiscriminating management and disposal practices						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	4	4	4	16	5	20 Positive (High)
No Mitigation Measures	Beneficial Impact: No mitigation proposed					

Table 8-3: Summary of Impact Significance rating- Institutional

Environmental Impact:						
The proposed MRF would through its metal recovery and recycling facilities provide for the implementation of the internationally accepted waste management hierarchy principles as incorporated in the National Waste Management Strategy (NWMS) of 2011.						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	5	4	4	16	5	25 Positive (High)
No Mitigation Measures	Beneficial Impact: No mitigation proposed					

Alternative 2: Process/Technology

Table 8-4: Summary of Impact Significance rating- Socio-economic

Table 8-4.1:

Environmental Impact:						
Creation of employment opportunities						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	4	2	2	4	2	8 Positive (Medium)

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

No Mitigation Measures	<p>Beneficial Impact: No mitigation proposed</p> <p>Existing employees from the N.N Metals Koedoespoort Facility will predominantly be employed at the new Watloo Facility and thus it is not anticipated that a significant number of new opportunities will be created. The addition of the Eldan Recycling Plant, is regarded as a mechanical process, and would only provide for a limited number of new opportunities.</p> <p>Indirect opportunities will also be created, in the metal recovery industry, especially the manufacturers if new products, from recycled steel at foundries etc.</p>
-------------------------------	--

Table 8-4.2:

Environmental Impact:						
Income (Direct and Indirect) generated as a result of scrap metal sales Numerous private entities and vendors will generate an income through the sale of ferrous and non-ferrous scrap metals						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	5	4	4	16	5	25 Positive (High)
No Mitigation Measures	Beneficial Impact: No mitigation proposed					

Table 8-5: Summary of Impact Significance rating- Sustainability

Environmental Impact:						
The proposed MRF would provide for, through the recycling and recovery of ferrous and non-ferrous metals, the sustainable management of waste items						
Through the recovery and recycling of ferrous and non-ferrous metals, less waste items to be disposed of in land-fill, which subsequently reduce the amount of energy consumed to transport un-recycled materials						
The proposed MRF would provide for through the relevant processes for sustainability in the sense that it reduces the amount of natural resources to be used to manufacture ferrous and non-ferrous metals.						
The proposed MRF would provide and contribute towards a reduction in carbon and/or greenhouse gas emissions emitted as a result of the processing of virgin material in the production of ferrous and non-ferrous metals.						
The proposed MRF would provide for a reduction in the pollution to the natural environment (local and regional scale) occurred due to the unsustainable management of waste items, and indiscriminating management and disposal practices						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	4	4	4	16	5	20 Positive (High)
No Mitigation Measures	Beneficial Impact: No mitigation proposed					

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Table 8-6: Summary of Impact Significance rating- Institutional

Environmental Impact:						
The proposed MRF would through its metal recovery and recycling facilities provide for the implementation of the internationally accepted waste management hierarchy principles as incorporated in the National Waste Management Strategy (NWMS) of 2011.						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	5	4	4	16	5	25 Positive (High)
No Mitigation Measures	Beneficial Impact: No mitigation proposed					

Adverse Impacts (Operational Phase):

Alternative 1: (Proposal) Process/Technology:

Table 8-9: Summary of Impact Significance rating- Geology and Soils

Environmental Impact:						
Contamination and/or pollution of top and sub-soils; Land contamination						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Before mitigation	3	2	4	8	3	9 Negative (Medium)
Mitigation Measures	<p>The subject property is predominantly in a transformed state with ±85% of all areas constituting concrete slab surfaces. The receiving/surrounding environment could however become contaminated as a result of polluted surface water run-off/stormwater which is generated on site.</p> <ul style="list-style-type: none"> • A proper stormwater management system should be installed to manage all surface water flows in a sustainable manner. An oil-water separator should in addition be stalled to remove all hydrocarbons, greases etc. as a result of waste items that may be contaminated, prior to be discharged into the municipal stormwater system; • A hazardous items, including oils, Fuels, greases, chemicals, paints etc. should be stored in an appropriate manner on site, in a specific designated area, with secondary containment and adequately banded to contain at least 110% of the spilled substance; • Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred. N.N. Metals (Pty) Ltd should refer to the plan compiled for emergency incidents, with reference to the procedures followed for spills and leaks. All contaminated materials as a result of spills should be managed and disposed of in an appropriate manner; and • No contaminated waste material may be accepted at the facility. Strict control should be exercised over incoming materials. <i>(Please refer to Appendix I (xi) for the arrangements pertaining to the security and access control measures as proposed by N.N. Metals)</i> 					

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

After Mitigation	2	1	4	4	2	4 Negative (Low)
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Table 8-10: Summary of Impact Significance rating- Surface Hydrology

Environmental Impact:						
Surface water pollution: Contamination of stormwater generated on site						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Before mitigation	4	2	4	8	3	12 Negative (Medium)
Mitigation Measures	<p>The subject property is per GDARD Conservation-Plan (C-Plan) Version 3.3 not affected by any watercourse and/or located within 100m from any watercourse or within 500m from any wetland habitat as defined in terms of the NWA, 1998. The risk for surface water pollution is still prevalent due to the contamination of stormwater generated on site.</p> <ul style="list-style-type: none"> • A proper stormwater management system should be installed to manage all surface water flows in a sustainable manner. An oil-water separator should in addition be stalled to remove all hydrocarbons, greases etc. as a result of waste items that may be contaminated, prior to be discharged into the municipal stormwater system; • A hazardous items, including oils, Fuels, greases, chemicals, paints etc. should be stored in an appropriate manner on site, in a specific designated area, with secondary containment and adequately banded to contain at least 110% of the spilled substance; • Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred. N.N. Metals (Pty) Ltd should refer to the plan compiled for emergency incidents, with reference to the procedures followed for spills and leaks. All contaminated materials as a result of spills should be managed and disposed of in an appropriate manner; and • No contaminated waste material may be accepted at the facility. Strict control should be exercised over incoming materials. <i>(Please refer to Appendix I (xi) for the arrangements pertaining to the security and access control measures as proposed by N.N. Metals)</i> 					
After Mitigation	2	1	4	4	2	4 Negative (Low)

Table 8-11: Summary of Impact Significance rating- Sub-surface Hydrology

Environmental Impact:						
Sub-surface water pollution, as a result of contaminated stormwater						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Before mitigation	2	1	4	4	2	4 Negative (Low)

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Mitigation Measures	<ul style="list-style-type: none"> • A proper stormwater management system should be installed to manage all surface water flows in a sustainable manner. An oil-water separator should in addition be stalled to remove all hydrocarbons, greases etc. as a result of waste items that may be contaminated, prior to be discharged into the municipal stormwater system; • A hazardous items, including oils, Fuels, greases, chemicals, paints etc. should be stored in an appropriate manner on site, in a specific designated area, with secondary containment and adequately banded to contain at least 110% of the spilled substance; • Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred. N.N. Metals (Pty) Ltd should refer to the plan compiled for emergency incidents, with reference to the procedures followed for spills and leaks. All contaminated materials as a result of spills should be managed and disposed of in an appropriate manner; and • No contaminated waste material may be accepted at the facility. Strict control should be exercised over incoming materials. <i>(Please refer to Appendix I (xi) for the arrangements pertaining to the security and access control measures as proposed by N.N. Metals)</i> 					
After Mitigation	2	1	4	4	2	4 Negative (Low)

Table 8-12: Summary of Impact Significance rating- Ambient Air Quality
Table 8-12.1:

Environmental Impact:						
Emissions to air generated and discharged by the Eldan Recycling Plant, with the subsequent result of degraded ambient air quality, and associated health risk to receiving sensitive receptors						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Before Mitigation	3	1	4	4	2	6 Negative (Low)
Mitigation measures	<p>The recycling plant has a complete dust extraction system, with a single stack discharge. It was established upon a formal site inspection that no dust is discharged from the single stack. The extraction system, and relevant aspects of the said system will in addition be properly sealed with the use of alternative engineering and associated material solutions, to ensure that no emissions with specific reference to dust particles. <i>(Please refer to Appendix I (xiii) for the engineering solutions proposed by N.N. Metals to contain and trap dust apart from the formal extraction system).</i></p> <ul style="list-style-type: none"> • An external audit should be conducted by the supplier to establish and ensure that the dust extraction system is functioning properly, and/or recommendations made to enhancing its functionality prior to final commissioning; • The engineering solutions proposed by N.N. Metals should be implemented prior to final commissioning of the recycling plant; • Only materials, with reference to discarded electrical cables, with plastic, paper, textile or rubber insulated cables or steel armoured cables may processed by the Eldan Recycling Plant; • All materials should be thoroughly inspected upon receipt, and prior to processing, to remove all materials not intended for processing, as a result of hazardous properties; • A monitoring plan should be developed, by a relevant independent entity, to amongst others provide for the monitoring of emissions from the single stack discharge. Monitoring should be conducted by the site Safety, Health and Environmental Officer on site, and/or an independent entity, in respect of emissions discharged, and the functioning of the dust extraction system; • All site workers should wear the necessary PPE (safety helmets, boots, gloves, safety glasses, ear plugs, dust masks etc.) when working on site during operation; 					

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

	<ul style="list-style-type: none"> The operational manager shall provide all construction workers with the necessary PPE during operation; A Health and Safety Officer (HSO) shall be appointed for the duration of the operational phase, to oversee all health and safety aspects, and recommend safety measures where deemed necessary; 					
After mitigation	2	1	4	4	2	4 Negative (Low)

Table 8-12.2:

Environmental Impact:						
Dust generated (dust fallout) as a result of general plant operation (existing activities to be relocated from Koedoespoort to Waltloo)						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	2	1	4	4	2	4 Negative (Low)
Mitigation measures	<p>The activities to be associated with the metal reclamation facility, will be performed on impermeable concrete surfaces and thus it is anticipated, that the loading, off-loading and management of ferrous and non-ferrous scrap metal on site will not generate a significant amount of dust. It is anticipated that dust generated due to operations on site will fall below the permissible dust fall rate in terms of SANS 1929 for areas zoned as industrial/for industrial use.</p> <p>Low significance. No mitigation further required.</p>					

Table 8-13: Summary of Impact Significance rating- Ambient Noise Levels

Table 8-13.1:

Environmental Impact:						
Nuisance and health risks as a result of excessive noise generated due to operation of Eldan Recycling Plant						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Before mitigation	5	4	4	16	5	25 Negative (High)
Mitigation Measures	<ul style="list-style-type: none"> All design measures presented by the Acoustical Engineer, should be implemented to reduce noise level to below the acceptable 70 dBA; The diesel generator, although only used as a backup source of electricity should be fitted a standard manufacture approved silencer to the engine exhaust; All design measures applicable to reducing the noise levels associated with the generator engine block and cooling fan should be implemented; All workers working in the vicinity of the recycling plant is required to wear the necessary PPE, with reference to earplugs, earmuffs etc; The operational manager shall provide all workers with the necessary PPE, when working in or in close proximity of the non-ferrous metal recovery facility; 					

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	<ul style="list-style-type: none"> • A Health and Safety Officer (HSO) shall be appointed for the duration of the operational phase, to oversee all health and safety aspects, and recommend safety measures where deemed necessary; • Baseline noise measurements shall be conducted by an independent specialist prior to the commissioning of the Eldan Recycling Plant, to establish whether the noise levels associated has effectively been lowered to below the acceptable 70 dBA; • A monitoring programme should be compiled, and implemented for duration of the operational phase of the activity, to provide for the periodic monitoring of noise emissions generated by the MRF. 					
After Mitigation	2	1	4	4	2	4 Negative (Low)

Table 8-13.2:

Environmental Impact:						
Nuisance and health risks as a result of excessive noise generated due to general plant operation, as result of existing activities to be relocated from Koedoespoort to Waitloo.						
Upon noise measurements taken during the normal course of operations at the existing Koedoespoort facility, it is indicated that the noise levels at the boundaries of the Waitloo facility (new premises) are expected to vary between 59 and 67 dBA, with a typical level of 65 dBA. The specialist subsequently indicated that the impact of general work activities to be transferred from the Koedoespoort site to Waitloo will be negligible.						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Before mitigation	2	2	4	8	3	6 Negative (Low)
Mitigation Measures	<ul style="list-style-type: none"> • All workers working is required to wear the necessary PPE with reference to earplugs, earmuffs etc; • The operational manager shall provide all workers with the necessary PPE, when working in noisy environments; • A Health and Safety Officer (HSO) shall be appointed for the duration of the operational phase, to oversee all health and safety aspects, and recommend health and safety measures where deemed necessary; • Baseline noise measurements should be taken by an independent specialist prior to the commissioning of operations, to establish and verify site specific noise levels in relation to the acceptable level; • A monitoring programme should be compiled, and implemented for duration of the operational phase of the activity, to provide for the periodic monitoring of noise emissions generated by the MRF. 					
After Mitigation	2	1	4	4	2	4 Negative (Low)

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Table 8-14: Summary of Impact Significance rating- Traffic

Environmental Impact:						
Increase in heavy vehicle/vehicle traffic on Mundt street, Waitloo due to the operation of the MRF						
Mundt street in Waitloo, which is a single carriage way, with one lane in both directions, is surrounded and thus services a considerable number of industrial facilities and their associated activities. It has been established upon a formal inspection, that the street is predominantly used by heavy vehicles including forklifts which transport material to and from industrial facilities. The surrounding roads is furthermore mostly characterised by light, but especially heavy vehicle traffic which transport goods manufactured and materials from within the node to different areas within the Province.						
It should be noted that Mundt street and the surrounding network, is at present significantly affected by vehicle traffic, in particular heavy vehicle used for the transportation of goods. Traffic volumes in addition increase during peak hour times during the day with reference to the early morning and late afternoon.						
It is anticipated that the operations of the proposed MRF will contribute and/or provide for an increase in vehicle and heavy vehicle traffic on the immediate surrounding road network and Mundt street, but is not regarded as significant in light of the current volumes of traffic accommodated.						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Before mitigation	4	2	4	8	3	12 Negative (Medium)
Mitigation Measures	All bulk metal intake should occur in peak traffic times; Bulk metal intake should occur between 9am- 3pm.					
After Mitigation	3	2	4	8	3	9 Negative (Medium)

Table 8-15: Summary of Impact Significance rating- Visual

Environmental Impact:						
The management including the storage and associated recovery and recycling of scrap metals may become visually unsightly to surrounding sensitive view sheds and/or receptors which will in turn adversely affect the sense of place of the surrounding area.						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Before mitigation	3	1	4	4	2	6 Negative (Low)
Mitigation Measures	<p>The proposed N.N. Metals Waitloo MRF is to be established in an existing industrial area, and as such is surrounded by similar land-uses and activities. The study area and it's surrounds is not in a natural state, or associated with a unique sense of place, and as such it is anticipated that the proposed reclamation facility would not result in a significance source of nuisance due to unsightly view sheds. It is however recommended that the site operation be kept in neat and tidy condition.</p> <ul style="list-style-type: none"> • All waste metals should be kept in neat and uniform heaps of not higher than 3-4m; • The site should be kept in a neat and tidy condition. All waste items to not be processed by the facility should be temporarily stored in a specific designated area, and regularly disposed off; and • The operational manager shall provide for site workers to clean the site of litter on a weekly basis. 					

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

After Mitigation	2	1	4	4	2	4 Negative (Low)
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Table 8-16: Summary of Impact Significance rating- Health and Safety

Environmental Impact						
Health and safety risks posed to site personnel and receiving sensitive receptors due to the operation of the proposed MRF						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Before mitigation	4	2	4	8	3	12 Negative (Medium)
Mitigation Measures	<ul style="list-style-type: none"> All site personnel should wear the necessary PPE (safety helmets, boots, gloves, goggles, ear plugs etc.) when working on site during the operation of the proposed MRF; The operational manager shall provide all operational site workers with the necessary PPE during the operation of the proposed MRF; A Health and Safety Officer (HSO) shall be appointed for the duration of the construction phase, to oversee all health and safety aspects, and recommend safety measures where deemed necessary; Emergency plan, compiled for emergency incidents and associated procedures should be promptly followed/implemented in the event of an emergency (Please refer to Appendix I (ix) for the attached Emergency Plan); Procedures pertaining to the security and access of the operations, as presented by N.N. Metals should be promptly followed and/or implemented during the operational phase of the MRF (Please refer to Appendix I (xi) for the attached Security and Access Aspects with regard to operation); A hazardous items, including oils, Fuels, greases, chemicals, paints etc. should be stored in an appropriate manner on site, in a specific designated area, with secondary containment and adequately banded to contain at least 110% of the spilled substance; All waste items of a hazardous nature on site should be managed in an appropriate manner, according to the Department of Water Affairs and Forestry (DWAFF) guideline document- <i>minimum requirements for the handling, classification and disposal of hazardous waste</i>; Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred. N.N. Metals (Pty) Ltd should refer to the plan compiled for emergency incidents, with reference to the procedures followed for spills and leaks. All contaminated materials as a result of spills should be managed and disposed of in an appropriate manner; An external audit should be conducted by the supplier to establish and ensure that the dust extraction system (Eldan Recycling Plant) is functioning properly, and/or recommendations made to enhancing its functionality prior to final commissioning; The engineering solutions proposed by N.N. Metals should be implemented prior to final commissioning of the recycling plant; Only materials, with reference to discarded electrical cables, with plastic, paper, textile or rubber insulated cables or steel armoured cables may processed by the Eldan Recycling Plant; All materials should be thoroughly inspected upon receipt, and prior to processing, to remove all materials not intended for processing, as a result of hazardous properties; and A monitoring plan should be developed, by a relevant independent entity, to amongst others provide for the monitoring of emissions from the single stack discharge. Monitoring should be conducted by the site Safety, Health, Environmental and Quality Officer (SHEQ) on site, and/or an independent entity, in respect of emissions discharged, and the functioning of the dust extraction system; 					

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After Mitigation	3	1	4	4	2	6 Negative (Low)
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Alternative 2: Process/Technology:

Table 8-17: Summary of Impact Significance rating- Geology and Soils

Environmental Impact:						
Contamination and/or pollution of top and sub-soils; Land contamination						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Before mitigation	3	2	4	8	3	9 Negative (Medium)
Mitigation Measures	<p>The subject property is predominantly in a transformed state with ±85% of all areas constituting concrete slab surfaces. The receiving/surrounding environment could however become contaminated as a result of polluted surface water run-off/stormwater which is generated on site.</p> <ul style="list-style-type: none"> • A proper stormwater management system should be installed to manage all surface water flows in a sustainable manner. An oil-water separator should in addition be stalled to remove all hydrocarbons, greases etc. as a result of waste items that may be contaminated, prior to be discharged into the municipal stormwater system; • A hazardous items, including oils, Fuels, greases, chemicals, paints etc. should be stored in an appropriate manner on site, in a specific designated area, with secondary containment and adequately banded to contain at least 110% of the spilled substance; • Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred. N.N. Metals (Pty) Ltd should refer to the plan compiled for emergency incidents, with reference to the procedures followed for spills and leaks. All contaminated materials as a result of spills should be managed and disposed of in an appropriate manner; and • No contaminated waste material may be accepted at the facility. Strict control should be exercised over incoming materials. <i>(Please refer to Appendix I (xi) for the arrangements pertaining to the security and access control measures as proposed by N.N. Metals)</i> 					
After Mitigation	2	1	4	4	2	4 Negative (Low)

Table 8-18: Summary of Impact Significance rating- Surface Hydrology

Environmental Impact:						
Surface water pollution Contamination of stormwater generated on site						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Before mitigation	4	2	4	8	3	12 Negative (Medium)
Mitigation Measures	The subject property is per GDARD Conservation-Plan (C-Plan) Version 3.3 not affected					

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	<p>by any watercourse and/or located within 100m from any watercourse or within 500m from any wetland habitat as defined in terms of the NWA, 1998. The risk for surface water pollution is still prevalent due to the contamination of stormwater generated on site.</p> <ul style="list-style-type: none"> • A proper stormwater management system should be installed to manage all surface water flows in a sustainable manner. An oil-water separator should in addition be stalled to remove all hydrocarbons, greases etc. as a result of waste items that may be contaminated, prior to be discharged into the municipal stormwater system; • A hazardous items, including oils, Fuels, greases, chemicals, paints etc. should be stored in an appropriate manner on site, in a specific designated area, with secondary containment and adequately banded to contain at least 110% of the spilled substance; • Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred. N.N. Metals (Pty) Ltd should refer to the plan compiled for emergency incidents, with reference to the procedures followed for spills and leaks. All contaminated materials as a result of spills should be managed and disposed of in an appropriate manner; and • No contaminated waste material may be accepted at the facility. Strict control should be exercised over incoming materials. <i>(Please refer to Appendix I (xi) for the arrangements pertaining to the security and access control measures as proposed by N.N. Metals)</i> 					
After Mitigation	2	1	4	4	2	4 Negative (Low)

Table 8-19: Summary of Impact Significance rating- Sub-surface Hydrology

Environmental Impact:						
Sub-surface water pollution, as a result of contaminated stormwater						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Before mitigation	2	1	4	4	2	4 Negative (Low)
Mitigation Measures	<ul style="list-style-type: none"> • A proper stormwater management system should be installed to manage all surface water flows in a sustainable manner. An oil-water separator should in addition be stalled to remove all hydrocarbons, greases etc. as a result of waste items that may be contaminated, prior to be discharged into the municipal stormwater system; • A hazardous items, including oils, Fuels, greases, chemicals, paints etc. should be stored in an appropriate manner on site, in a specific designated area, with secondary containment and adequately banded to contain at least 110% of the spilled substance; • Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred. N.N. Metals (Pty) Ltd should refer to the plan compiled for emergency incidents, with reference to the procedures followed for spills and leaks. All contaminated materials as a result of spills should be managed and disposed of in an appropriate manner; and • No contaminated waste material may be accepted at the facility. Strict control should be exercised over incoming materials. <i>(Please refer to Appendix I (xi) for the arrangements pertaining to the security and access control measures as proposed by N.N. Metals)</i> 					
After Mitigation	2	1	4	4	2	4 Negative (Low)

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

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Table 8-20: Summary of Impact Significance rating- Ambient Air Quality

Environmental Impact:						
Dust generated (dust fallout) as a result of general plant operation (existing activities to be relocated from Koedoespoort to Waltloo)						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Not Applicable	2	1	4	4	2	4 Negative (Low)
Mitigation measures	<p>The activities to be associated with the metal reclamation facility, will be performed on impermeable concrete surfaces and thus it is anticipated, that that the loading, off-loading and management of ferrous and non-ferrous scrap metal on site will not generate a significant amount of dust. It is anticipated that dust generated due to operations on site will fall below the permissible dust fall rate in terms of SANS 1929 for areas zoned as industrial/for industrial use.</p> <p>Low significance. No mitigation further required.</p>					

Table 8-21: Summary of Impact Significance rating- Ambient Noise Levels

Environmental Impact:						
Nuisance and health risks as a result of excessive noise generated due to general plant operation, as result of existing activities to be relocated from Koedoespoort to Waltloo						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Before mitigation	2	2	4	8	3	6 Negative (Low)
Mitigation Measures	<ul style="list-style-type: none"> All workers working is required to wear the necessary PPE with reference to earplugs, earmuffs etc; The operational manager shall provide all workers with the necessary PPE, when working in noisy environments; A Health and Safety Officer (HSO) shall be appointed for the duration of the operational phase, to oversee all health and safety aspects, and recommend health and safety measures where deemed necessary; Baseline noise measurements should be taken by an independent specialist prior to the commissioning of operations, to establish and verify site specific noise levels in relation to the acceptable level; A monitoring programme should be compiled, and implemented for duration of the operational phase of the activity, to provide for the periodic monitoring of noise emissions generated by the MRF. 					
After Mitigation	2	1	4	4	2	4 Negative (Low)

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Table 8-22: Summary of Impact Significance rating- Traffic

Environmental Impact:						
Increase in heavy vehicle/vehicle traffic on Mundt street, Waitloo due to the operation of the MRF						
<p>Mundt street in Waitloo, which is a single carriage way, with one lane in both directions, is surrounded and thus services a considerable number of industrial facilities and their associated activities. It has been established upon a formal inspection, that the street is predominantly used by heavy vehicles including forklifts which transport material to and from industrial facilities. The surrounding roads is furthermore mostly characterised by light, but especially heavy vehicle traffic which transport goods manufactured and materials from within the node to different areas within the Province.</p> <p>It should be noted that Mundt street and the surrounding network, is at present significantly affected by vehicle traffic, in particular heavy vehicle used for the transportation of goods. Traffic volumes in addition increase during peak hour times during the day with reference to the early morning and late afternoon.</p> <p>It is anticipated that the operations of the proposed MRF will contribute and/or provide for an increase in vehicle and heavy vehicle traffic on the immediate surrounding road network and Mundt street, but is not regarded as significant in light of the current volumes of traffic accommodated.</p>						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Before mitigation	4	2	4	8	3	12 Negative (Medium)
Mitigation Measures	<ul style="list-style-type: none"> • All bulk metal intake should occur in peak traffic times; and • Bulk metal intake should occur between 9am- 3pm. 					
After Mitigation	3	2	4	8	3	9 Negative (Medium)

Table 8-23: Summary of Impact Significance rating- Visual

Environmental Impact:						
<p>The management, including the storage and associated recovery and recycling of scrap metals may become visually unsightly to surrounding sensitive view sheds and/or receptors which will in turn adversely affect the sense of place of the surrounding area.</p>						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Before mitigation	3	1	4	4	2	6 Negative (Low)
Mitigation Measures	<p>The proposed N.N. Metals Waitloo MRF is to be established in an existing industrial area, and as such is surrounded by similar land-uses and activities. The study area and it's surrounds is not in a natural state, or associated with a unique sense of place, and as such it is anticipated that the proposed reclamation facility would not result in a significance source of nuisance due to unsightly views. It is however recommended that the site operation be kept in neat and tidy condition.</p> <ul style="list-style-type: none"> • All waste metals should be kept in neat and uniform heaps of not higher than 3-4m; • The site should be kept in a neat and tidy condition. All waste items to not be processed by the facility should be temporarily stored in a specific designated area, and regularly deposited off; and • The operational manager shall provide for site workers to clean the site of litter on a weekly basis. 					

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After Mitigation	2	1	4	4	2	4 Negative (Low)
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Table 8-24: Summary of Impact Significance rating- Health and Safety

Environmental Impact:						
Health and safety risks posed to site personnel and receiving sensitive receptors due to the operation of the proposed MRF						
Mitigation Status	Probability Rating	Severity Rating		Severity Factor	Severity Rating	Significance Rating
		Intensity	Duration			
Before mitigation	4	2	4	8	3	12 Negative (Medium)
Mitigation Measures	<ul style="list-style-type: none"> All site personnel should wear the necessary PPE (safety helmets, boots, gloves, goggles, ear plugs etc.) when working on site during the operation of the proposed MRF; The contractor shall provide all construction workers with the necessary PPE during construction; A Health and Safety Officer (HSO) shall be appointed for the duration of the construction phase, to oversee all health and safety aspects, and recommend safety measures where deemed necessary; Emergency plan, compiled for emergency incidents and associated procedures should be promptly followed/implemented in the event of an emergency (Please refer to Appendix I (ix) for the attached Emergency Plan); Procedures pertaining to the security and access of the operations, as presented by N.N. Metals should be promptly followed and/or implemented during the operational phase of the MRF (Please refer to Appendix I (xi) for the attached Security and Access Aspects with regard to operation); A hazardous items, including oils, Fuels, greases, chemicals, paints etc. should be stored in an appropriate manner on site, in a specific designated area, with secondary containment and adequately banded to contain at least 110% of the spilled substance; All waste items of a hazardous nature on site should be managed in an appropriate manner, according to the Department of Water Affairs and Forestry (DWAF) guideline document- <i>minimum requirements for the handling, classification and disposal of hazardous waste</i>, Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred. N.N. Metals (Pty) Ltd should refer to the plan compiled for emergency incidents, with reference to the procedures followed for spills and leaks. All contaminated materials as a result of spills should be managed and disposed of in an appropriate manner; 					
After Mitigation	3	1	4	4	2	6 Negative (Low)

2.3 Significance Assessment: Results

Please refer to Table 10 for the results of the significance assessment after mitigation
Table 10: Results- Significance Assessment After Mitigation

Alternative 1 (Proposal) Process/Technology				Alternative 2 Process/Technology			
Construction Phase:		Operational Phase:		Construction Phase:		Operational Phase:	
Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse
Low =1; Medium= 1	Low= 7	Medium= 1 High= 5	Low = 8 Medium=1	Low =1 Medium =1	Low =7	Medium= 1 High =3	Low = 6 Medium=1

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

Please refer to Appendix G for the attached Noise Impact Assessment as prepared by Acusolv, Acoustical Consulting Engineers
 Please refer to Appendix G to the Stormwater Management Plan

3. IMPACTS THAT MAY RESULT FROM THE DECOMMISSIONING AND CLOSURE PHASE

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the decommissioning and closure phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Proposal: Process/Technology

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Creation of Employment Opportunities	Medium	Beneficial Impact: No mitigation required	Medium
Soil/land contamination, and pollution of the receiving environment as a result of indiscriminating waste management and disposal, hydrocarbon spillages etc.	Medium	<p>The subject property is in a transformed state with 85% of all areas constituting paving, and/or concrete surfaces. The receiving/surrounding environment could however become contaminated as a result of polluted surface water run-off/stormwater, as well as Indiscriminating/inappropriate waste management and disposal practices.</p> <ul style="list-style-type: none"> • All hazardous items, including oil, fuels, greases, chemicals should be stored during the decommission phase in an appropriate manner on site, in a specific designated area with secondary containment and adequately banded to contain at least 110% of the potential spilled substance; • Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred; • A specialised rehabilitation and remediation contractor should be appointed in the event of a large spill and the relevant authorities informed of such an event; • All waste materials, general, and hazardous generated through the decommissioning exercise should be dealt with in an appropriate manner by the decommissioning contractor; • All decommissioning activities should be performed under controlled conditions, by a specialised contractor. A risk assessment should be conducted prior to any work performed to inform closure methodologies etc; • All relevant authorisations, permits and licenses should be sought by an independent consultant prior to any commencement of decommissioning activities; • A Environmental Management Programme (EMPr) should be compiled prior to the commencement of the decommission operations; • A pre-closure audit should be conducted to establish the nature 	Low

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		and extent of any soil/land contamination due to operational activities.	
Surface water pollution Contamination of stormwater generated on site	Medium	<p>The subject property is per GDARD C-Plan Version 3.3 not affected by any watercourses and/or located within 100m from any watercourse or within 500m from any wetland habitat as defined in terms of the NWA, 1998. The risk for surface water pollution is still prevalent due to the contamination of stormwater generated on site.</p> <ul style="list-style-type: none"> • All hazardous items, including oil, fuels, greases, chemicals should be stored during the decommission phase in an appropriate manner on site, in a specific designated area with secondary containment and adequately bunded to contain at least 110% of the potential spilled substance; • Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred; • A specialised rehabilitation and remediation contractor should be appointed in the event of a large spill and the relevant authorities informed of such an event; • All waste materials, general, and hazardous generated through the decommissioning exercise should be dealt with in an appropriate manner by the decommissioning contractor; • All decommissioning activities should be performed under controlled conditions, by a specialised contractor. A risk assessment should be conducted prior to any work performed to inform closure methodologies etc; • All relevant authorisations, permits and licenses should be sought by an independent consultant prior to any commencement of decommissioning activities; • A Environmental Management Programme (EMPr) should be compiled prior to the commencement of the decommission operations; • Measures should be implemented on site, prior and during decommissioning operations, to manage surface water, and/or stormwater generated on site in an appropriate manner, in order to limit the risk for contamination. 	Low
Sub-surface water pollution as a result of contaminated stormwater	Low	<ul style="list-style-type: none"> • All hazardous items, including oil, fuels, greases, chemicals should be stored during the decommission phase in an appropriate manner on site, in a specific designated area with secondary containment and adequately bunded to contain at least 110% of the potential spilled 	Low

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		<p>substance;</p> <ul style="list-style-type: none"> • Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred; • A specialised rehabilitation and remediation contractor should be appointed in the event of a large spill and the relevant authorities informed of such an event; • All waste materials, general, and hazardous generated through the decommissioning exercise should be dealt with in an appropriate manner by the decommissioning contractor; • All decommissioning activities should be performed under controlled conditions, by a specialised contractor. A risk assessment should be conducted prior to any work performed to inform closure methodologies etc; • All relevant authorisations, permits and licenses should be sought by an independent consultant prior to any commencement of decommissioning activities; • A Environmental Management Programme (EMPr) should be compiled prior to the commencement of the decommission operations; • Measures should be implemented on site, prior and during decommissioning operations, to manage surface water, and/or stormwater generated on site in an appropriate manner, in order to limit the risk for contamination. 	
<p>Emissions to air Air pollution Dust fallout Degraded ambient air quality</p>	<p align="center">Low</p>	<p>Decommissioning activities is to be performed on existing impermeable concrete surfaces, and as such it is anticipated that decommissioning activities would not generated a significant amount of dust. The following mitigation and management measures however remain relevant:</p> <ul style="list-style-type: none"> • All waste materials, general, and hazardous generated through the decommissioning exercise should be dealt with in an appropriate manner by the decommissioning contractor; • All decommissioning activities should be performed under controlled conditions, by a specialised contractor. A risk assessment should be conducted prior to any work performed to inform closure methodologies etc; • All relevant authorisations, permits and licenses should be sought by an independent consultant prior to any commencement of decommissioning activities; • An Environmental Management Programme (EMPr) should be compiled prior to the commencement 	<p align="center">Low</p>

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		<p>of the decommission operations; and</p> <ul style="list-style-type: none"> All areas exposed should be effectively damped during decommissioning operations to suppress dust effectively. 	
Nuisance as a result of noise generated due to decommissioning operations.	Low	<p>It should be noted that the proposed N.N. Metals Waltloo Metal Reclamation Facility is to be established in an area zone for industrial use, and as such the permissible noise level for such areas is higher than for rural, semi-rural and residential area. It is anticipated that the noise emissions generated as a result of decommissioning activities, will in light of the permissible levels pertaining to industrial areas not be regarded as significant. Excessive noise generated by whoever poses a health risk to site/contract workers and as such should wear the necessary PPE.</p> <ul style="list-style-type: none"> All site worker should wear the necessary PPE with reference to ear plugs, earmuffs etc; The contractor responsible for decommissioning operations shall provide all site workers with the necessary PPE when working in noisy environments; A Safety, Health and Environmental Officer shall be appointed for the duration of decommissioning phase to oversee all health and safety aspects, and recommend measures where deemed necessary; and An Environmental Management Programme (EMPr) should be compiled prior to the commencement of decommissioning operations. 	
Increase in heavy vehicle traffic on Mundt Street, Waltloo due to decommissioning operations.	Low	<p>The proposed MRF is to be established in an existing industrial area, of which Mundt Street is surrounded and which services a considerable number of industrial properties and facilities. Mundt Street is subsequently as a result characterised by high traffic volumes, especially heavy vehicles, including trucks. A formal site assessment in addition confirmed high traffic volumes, of which it has been noted that even fork lifters use the street regularly which result in traffic flow disruptions</p> <p>It should be noted that decommissioning operations, would be of a short term nature, and as such it is anticipated, taking the current scenario into consideration that the increase in heavy vehicle traffic on Mundt Street, due to closure and/or decommissioning operations is not be regarded as significant.</p>	Low
Health and Safety risks posed to site workers and surrounding sensitive receptors as a result of close and/or decommissioning activities.	Medium	<ul style="list-style-type: none"> All site personnel should wear the necessary PPE (safety helmets, boots, gloves, goggles, ear plugs etc.) when working on site during the operation of the proposed MRF; The contractor shall provide all construction workers with the necessary PPE during construction; A Health and Safety Officer (HSO) 	Low

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		<p>shall be appointed for the duration of the construction phase, to oversee all health and safety aspects, and recommend safety measures where deemed necessary;</p> <ul style="list-style-type: none"> • A hazardous items, including oils, Fuels, greases, chemicals, paints etc. should be stored in an appropriate manner on site, in a specific designated area, with secondary containment and adequately banded to contain at least 110% of the spilled substance; • All waste items of a hazardous nature on site should be managed in an appropriate manner, according to the Department of Water Affairs and Forestry (DWAF) guideline document- <i>minimum requirements for the handling, classification and disposal of hazardous waste</i>, • Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred. N.N. Metals (Pty) Ltd should refer to the plan compiled for emergency incidents, with reference to the procedures followed for spills and leaks. All contaminated materials as a result of spills should be managed and disposed of in an appropriate manner; • All decommissioning activities should be performed under controlled conditions, by a specialised contractor. A risk assessment should be conducted prior to any work performed to inform closure methodologies etc; 	
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Alternative: Process/Technology

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Creation of Employment Opportunities	Medium	Beneficial Impact: No mitigation required	Medium
Soil/land contamination, and pollution of the receiving environment as a result of indiscriminating waste management and disposal, hydrocarbon spillages etc.	Medium	<p>The subject property is in a transformed state with 85% of all areas constituting paving, and/or concrete surfaces. The receiving/surrounding environment could however become contaminated as a result of polluted surface water run-off/stormwater, as well as indiscriminating/inappropriate waste management and disposal practices.</p> <ul style="list-style-type: none"> • All hazardous items, including oil, fuels, greases, chemicals should be stored during the decommission phase in an 	Low

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		<p>appropriate manner on site, in a specific designated area with secondary containment and adequately bunded to contain at least 110% of the potential spilled substance;</p> <ul style="list-style-type: none"> • Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred; • A specialised rehabilitation and remediation contractor should be appointed in the event of a large spill and the relevant authorities informed of such an event; • All waste materials, general, and hazardous generated through the decommissioning exercise should be dealt with in an appropriate manner by the decommissioning contractor; • All decommissioning activities should be performed under controlled conditions, by a specialised contractor. A risk assessment should be conducted prior to any work performed to inform closure methodologies etc; ▪ All relevant authorisations, permits and licenses should be sought by an independent consultant prior to any commencement of decommissioning activities; • A Environmental Management Programme (EMPr) should be compiled prior to the commencement of the decommission operations; • A pre-closure audit should be conducted to establish the nature and extent of any soil/land contamination due to operational activities. 	
<p>Surface water pollution Contamination of stormwater generated on site</p>	<p align="center">Medium</p>	<p>The subject property is per GDARD C-Plan Version 3.3 not affected by any watercourses and/or located within 100m from any watercourse or within 500m from any wetland habitat as defined in terms of the NWA, 1998. The risk for surface water pollution is still prevalent due to the contamination of stormwater generated on site.</p> <ul style="list-style-type: none"> • All hazardous items, including oil, fuels, greases, chemicals should be stored during the decommission phase in an appropriate manner on site, in a specific designated area with secondary containment and adequately bunded to contain 	<p align="center">Low</p>

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		<p>at least 110% of the potential spilled substance;</p> <ul style="list-style-type: none"> • Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred; • A specialised rehabilitation and remediation contractor should be appointed in the event of a large spill and the relevant authorities informed of such an event; • All waste materials, general, and hazardous generated through the decommissioning exercise should be dealt with in an appropriate manner by the decommissioning contractor; • All decommissioning activities should be performed under controlled conditions, by a specialised contractor. A risk assessment should be conducted prior to any work performed to inform closure methodologies etc; • All relevant authorisations, permits and licenses should be sought by an independent consultant prior to any commencement of decommissioning activities; • A Environmental Management Programme (EMPr) should be compiled prior to the commencement of the decommission operations; • Measures should be implemented on site, prior and during decommissioning operations, to manage surface water, and/or stormwater generated on site in an appropriate manner, in order to limit the risk for contamination. 	
<p>Sub-surface water pollution as a result of contaminated stormwater</p>	<p align="center">Low</p>	<ul style="list-style-type: none"> • All hazardous items, including oil, fuels, greases, chemicals should be stored during the decommission phase in an appropriate manner on site, in a specific designated area with secondary containment and adequately banded to contain at least 110% of the potential spilled substance; • Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred; • A specialised rehabilitation and remediation contractor should be appointed in the event of a large spill and the relevant authorities informed of such an 	<p align="center">Low</p>

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		<p>event;</p> <ul style="list-style-type: none"> • All waste materials, general, and hazardous generated through the decommissioning exercise should be dealt with in an appropriate manner by the decommissioning contractor; • All decommissioning activities should be performed under controlled conditions, by a specialised contractor. A risk assessment should be conducted prior to any work performed to inform closure methodologies etc; • All relevant authorisations, permits and licenses should be sought by an independent consultant prior to any commencement of decommissioning activities; • A Environmental Management Programme (EMPr) should be compiled prior to the commencement of the decommission operations; • Measures should be implemented on site, prior and during decommissioning operations, to manage surface water, and/or stormwater generated on site in an appropriate manner, in order to limit the risk for contamination. 	
<p>Emissions to air Air pollution Dust fallout Degraded ambient air quality</p>	<p align="center">Low</p>	<p>Decommissioning activities is to be performed on existing impermeable concrete surfaces, and as such it is anticipated that decommissioning activities would not generated a significant amount of dust. The following mitigation and management measures however remain relevant:</p> <ul style="list-style-type: none"> • All waste materials, general, and hazardous generated through the decommissioning exercise should be dealt with in an appropriate manner by the decommissioning contractor; • All decommissioning activities should be performed under controlled conditions, by a specialised contractor. A risk assessment should be conducted prior to any work performed to inform closure methodologies etc; • All relevant authorisations, permits and licenses should be sought by an independent consultant prior to any commencement of decommissioning activities; • An Environmental 	<p align="center">Low</p>

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		<p>Management Programme (EMPr) should be compiled prior to the commencement of the decommissioning operations; and</p> <ul style="list-style-type: none"> All areas exposed should be effectively damped during decommissioning operations to suppress dust effectively. 	
<p>Nuisance as a result of noise generated due to decommissioning operations.</p>	<p>Low</p>	<p>It should be noted that the proposed N.N. Metals Waltloo Metal Reclamation Facility is to be established in an area zone for industrial use, and as such the permissible noise level for such areas is higher than for rural, semi-rural and residential area. It is anticipated that the noise emissions generated as a result of decommissioning activities, will in light of the permissible levels pertaining to industrial areas not be regarded as significant. Excessive noise generated by however pose a health risk to site/contract workers and as such should wear the necessary PPE.</p> <ul style="list-style-type: none"> All site worker should wear the necessary PPE with reference to ear plugs, earmuffs etc; The contractor responsible for decommissioning operations shall provide all site workers with the necessary PPE when working in noisy environments; A Safety, Health and Environmental Officer shall be appointed for the duration of decommissioning phase to oversee all health and safety aspects, and recommend measures where deemed necessary; and An Environmental Management Programme (EMPr) should be compiled prior to the commencement of decommissioning operations. 	
<p>Increase in heavy vehicle traffic on Mundt Street, Waltloo due to decommissioning operations.</p>	<p>Low</p>	<p>The proposed MRF is to be established in an existing industrial area, of which Mundt Street is surrounded and which services a considerable number of industrial properties and facilities. Mundt Street is subsequently as a result characterised by high traffic volumes, especially heavy vehicles, including trucks. A formal site assessment in addition confirmed high traffic volumes, of which it has been noted that even fork lifters use the street regularly which result in traffic flow disruptions</p> <p>It should be noted that decommissioning operations, would be of a short term nature, and as such it is anticipated, taking the current scenario</p>	<p>Low</p>

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		<p>into consideration that the increase in heavy vehicle traffic on Mundt Street, due to closure and/or decommissioning operations is not be regarded as significant.</p>	
<p>Health and Safety risks posed to site workers and surrounding sensitive receptors as a result of close and/or decommissioning activities.</p>	<p align="center">Medium</p>	<ul style="list-style-type: none"> • All site personnel should wear the necessary PPE (safety helmets, boots, gloves, goggles, ear plugs etc.) when working on site during the operation of the proposed MRF; • The contractor shall provide all construction workers with the necessary PPE during construction; • A Health and Safety Officer (HSO) shall be appointed for the duration of the construction phase, to oversee all health and safety aspects, and recommend safety measures where deemed necessary; • A hazardous items, including oils, Fuels, greases, chemicals, paints etc. should be stored in an appropriate manner on site, in a specific designated area, with secondary containment and adequately banded to contain at least 110% of the spilled substance; • All waste items of a hazardous nature on site should be managed in an appropriate manner, according to the Department of Water Affairs and Forestry (DWAF) guideline document- <i>minimum requirements for the handling, classification and disposal of hazardous waste</i>; • Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred. N.N. Metals (Pty) Ltd should refer to the plan compiled for emergency incidents, with reference to the procedures followed for spills and leaks. All contaminated materials as a result of spills should be managed and disposed of in an appropriate manner; • All decommissioning activities should be performed under controlled conditions, by a specialised contractor. A risk assessment should be conducted prior to any work performed to inform closure methodologies etc; 	<p align="center">Low</p>

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List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

Noise Assessment (See Appendix G)
Stormwater management Plan (Appendix G)

4. CUMULATIVE IMPACTS

Describe potential impacts that, on their own may not be significant, but is significant when added to the impact of other activities or existing impacts in the environment. Substantiate response:

4.1 Adverse:

Traffic:

- Traffic Impact- Increase in heavy vehicle traffic on the road network surrounding Waitloo, and Mundt Street, Waitloo

Health and Safety:

- Health and safety risks posed to workers and the society in general as a result of activities associated with the management and transportation of ferrous and non-ferrous scrap metals

4.2 Beneficial:

Socio-economic:

- Proposal a direct and indirect source of income for many people, and
- Eldan Recycling Plant will provide for enhanced productivity and efficiency whereby non-ferrous metals will be recovered and recycled

Sustainability:

- The proposed MRF will provide for a reduction in carbon and greenhouse gas emissions,
- Metal recovery and recycling will provide for the sustainable use and conservation of natural and irreplaceable resources, and
- Preservation of land-fill capacity

Bio-physical:

- Metal recovery and recycling will provide for a reduction in environmental degradation and pollution of natural environmental resources (pollution of the natural environmental due to inappropriate waste management and disposal practices)

5. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that sums up the impact that the proposal 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.

Proposal (Process/Technology)

The proposal constitutes the relocation of the existing N.N Metals Koedoespoort metal reclamation facility/operation to a property located in the Waitloo Industrial District. N.N Metals (Pty) Ltd, as indicated before is a prominent and well known recycler and dealer of ferrous and non-ferrous metals, with a number of operations in the municipal jurisdiction of the CoT.

The proposal, apart from normal operations which is relocated, will have the addition of a specialised Eldan Recycling plant (cable recycling) that provide for the recovery and recycling of non-ferrous metals from used electrical cables.

The proposed development site is extensively transformed, with $\pm 85\%$ hard surface cover in the form of paving/concrete, and existing buildings. The subject property is not affected by any sensitive habitats or watercourses.

It is the objective of the Basic Assessment Process, to identify the potential environmental impacts, beneficial and adverse to be associated with the construction and operational phases of the proposed activity, and based on professional experience, technical expertise and specialist input to establish the significance and ultimately the probability of the impacts occurring.

A limited number of adverse impacts which relates to the construction phase of the preferred proposal have been identified, of which all of a low significance. The result can be ascribed to the fact that most of the facilities to be utilised for waste management is existing and/or installed erected on site. No mitigation measures as a result of the significance, was in addition proposed except for the aspect Health and safety. Impacts related to the said aspect can however be effectively mitigated with the execution and/or application of proper management practice. It should on the other hand be noted that no significant beneficial impacts, of long term nature is to be associated with the construction phase. The most significant beneficial impact, the creation of new employment opportunities will be of a limited number, and will only last for the duration of construction.

With regard to the operational phase, of which the proposal has an expected activity duration of 15 years+, a greater number of potential environmental impacts of higher significance have been identified, in relation to the construction phase. The potential impacts, is thus as a result of the duration of operation, of a long term nature which played determining a role in establishing the significance of the potential impacts in question.

The proposal, based on the significance assessment provides for a number of socio-economic related beneficial impacts of high significance. It is anticipated that the proposal would be a direct and in-direct source of income for many people, and make a significant contribution towards sustainability in the sense that waste materials will become via the reclamation, recovery and recycling process a resource. Cumulative, and direct impacts, such as a reduction in carbon emissions, sustainable use of natural and

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irreplaceable resources, and the preservation of land-fill capacity is furthermore closely related and a consequence of the proposal. The proposal will deal with ferrous and non-ferrous metals in an integrated manner, incorporating the internationally accepted waste management hierarchy principles as per the National Waste Management Strategy (NWMS) of 2011.

The proposal will with the addition of the Eldan Recycling Plant furthermore provide for enhanced productivity and efficiency whereby non-ferrous metals will be recovered and recycled, with the subsequent result of increased profitability.

Potential adverse impacts, based on the significance assessment, was generally of a higher significance before mitigation for the operational phase of the proposal, with the impact of noise emissions generated by the Eldan Recycling Plant, health risks associated and an increase in vehicle traffic on the surrounding road network and Mundt street the highest. Significant impacts prior to mitigation furthermore pertain to the possible contamination of top and/or sub-soils, surface water pollution due to the contamination of stormwater and health and safety risks posed to site personnel and surrounding sensitive receptors. The significance assessment proved a significance rating of medium for all the aforementioned impacts, prior to mitigation.

Bokamoso/ The EAP is of the opinion that due to the nature of the significance coupled to the potential impacts as outlined above, management measures presented and the proper and appropriate execution and monitoring of such measures implemented is critical to ensure the mitigation of the potential impacts to an acceptable significance level. The measures and management practices as outlined in Section 2.1, which also encompass specialist input, is regarded as sufficient to ensure the proper mitigation of the potential significant impacts identified, and thus considerably reducing the probability of the potential impacts identified occurring.

Alternative (Process/Technology)

The proposal constitutes the relocation of the existing N.N. Metals Koedoespoort metal reclamation facility/operation to a property located in the Walloo Industrial District. N.N. Metals (Pty) Ltd, as indicated before is a prominent and well known recycler and dealer of ferrous and non-ferrous metals, with a number of operations in the municipal jurisdiction of the CoT.

The alternative process technology encompass existing operational ferrous and non-ferrous activities to be relocated with alternative process proposed for the recovery of non-ferrous metals from used electrical cables. Non-ferrous metals will alternatively be recovered manually, whereby site workers will strip and remove the cable insulation, instead of the specialised mechanical process.

As in the case of the proposal, the alternative is associated with limited amount of potential adverse impacts which relate to the construction phase, of which all of a low significance, as most of the facilities to be utilised for waste management existing and/or installed on site. No mitigation measures as a result of the significance, was in addition proposed except for the aspect Health and safety. Impacts related to the said aspect can however be effectively mitigated with the execution and/or application of proper management practice. It should on the other hand be noted that no significant beneficial impacts, of long term nature is to be associated with the construction phase. The most significant beneficial impact, the creation of new employment opportunities will be of a limited number, and will only last for the duration

of construction.

With regard to the operational phase, of which the proposal has an expected activity duration of 15 years+, a greater number of potential environmental impacts of higher significance have been identified, in relation to the construction phase. The potential impacts, is thus as a result of the duration of operation of a long term nature which played determining a role in establishing the significance of the potential impacts in question.

The alternative, based on the significance assessment provides for a number of socio-economic related beneficial impacts of high significance. It is anticipated that the proposal would be a direct and in-direct source of income for many people, and make a significant contribution towards sustainability in the sense that waste materials will become via the reclamation, recovery and recycling process a resource. Cumulative, and direct impacts, such as a reduction in carbon emissions, sustainable use of natural and irreplaceable resources, and the preservation of land-fill capacity is furthermore closely related and a consequence of the proposal. The alternative will deal with ferrous and non-ferrous metals in an integrated manner, incorporating the internationally accepted waste management hierarchy principles as per the National Waste Management Strategy (NWMS) of 2011.

It is anticipated that with the non-ferrous recovery process, the efficiency of a manual operation instead of a specialised mechanical process, will be lower, with the subsequent result of a lower recovery rate, and associated profits.

The potential adverse impacts, based on the significance assessment, were generally of a higher significance before mitigation for the operational phase of the alternative, but with no significant impact which relate to noise emissions, and associated health risks, due to the alternative non-ferrous metal recovery process which is proposed. Significant impacts prior to mitigation pertain to the possible contamination of top and/or sub-soils, surface water pollution due to the contamination of stormwater, increased vehicle traffic on the surrounding road network and Mundt street and health and safety risks posed to site personnel and surrounding sensitive receptors. The significance assessment proved a significance rating of medium for all the aforementioned impacts prior to mitigation.

Bokamoso/The EAP is of the opinion that all potential adverse impacts which relate to the alternative can be sufficiently mitigated with the proper and appropriate execution and/or implementation of the management measures and practices as outlined in Section 2.1 of this report, thus reducing the probability of the potential impacts occurring.

No-go (compulsory)

The no-go, refer to the scenario whereby, the proposed development site remains within its current state, and the existing Koedoespoort facilities remain intact with no relocation.

The proposal constitutes the relocation of the existing N.N. Metals Koedoespoort metal reclamation facility/operation to a property located in the Waitloo Industrial District. As indicated before, N.N. Metals is a prominent and well known recycler and dealer of ferrous and non-ferrous metals, with a number of operations in the municipal jurisdiction of the CoT. It should be noted that the Koedoespoort facility is located on a property, owned by Transnet, and was necessitated to relocate due to the expiry of their

lease agreement.

The subject property, as mentioned throughout this report is in a developed and transformed and dilapidated state and is located in an existing industrial area/node and thus surrounded by similar land-uses. The proposed MRF provides for a number of socio-economic related beneficial impacts of high significance. It is anticipated that the proposed MRF through its operation would be a direct and in-direct source of income for many people, and will make a significant contribution towards sustainability in the sense that waste materials will become via the reclamation, recovery and recycling process a resource to be utilised again. Cumulative and direct impacts such as a reduction in carbon emissions, sustainable use of natural irreplaceable resources, and the preservation of land-fill capacity is further closely related and a consequence of the proposed MRF. The proposed MRF will deal with ferrous and non-ferrous metals in an integrated manner, incorporating the internationally accepted waste management hierarchy principles as per the NWMS, 2011.

As per the discussion of the proposal and alternative, as outlined in the sections above it has been established that the proposed MRF is associated with potential adverse impacts of which significant during the operation of the of the said facility. It has on the other hand been established that in both the proposal and alternative such impacts with the proper and appropriate execution and monitoring of the management measures proposed, can be mitigated to acceptable levels.

It is in light of the above clear that the no-go alternative would not provide for the beneficial socio-economic impacts which is anticipated during the operation of the proposed MRF, and the coupled cumulated and indirect impacts that contribute towards sustainable development and a green economy in the long run. The study area is at present in a transformed and developed state, with the majority of the facilities to be utilised for waste management existing on site. It has been accentuated that there is an urgent need for the applicant to relocate its current operations, and that the adverse impacts can be mitigated through the proper and appropriate application of the management measures presented in this report.

6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

The proposal, based on the significance assessment provides for a number of socio-economic related beneficial impacts of high significance. It is anticipated that the proposal would be a direct and in-direct source of income for many people, and make a significant contribution towards sustainability in the sense that waste materials will become via the reclamation, recovery and recycling process a resource. Cumulative, and direct impacts, such as a reduction in carbon emissions, sustainable use of natural and irreplaceable resources, and the preservation of land-fill capacity is furthermore closely related and a consequence of the proposal. The proposal will deal with ferrous and non-ferrous metals in an integrated manner, incorporating the internationally accepted waste management hierarchy principles as per the National Waste Management Strategy (NWMS) of 2011.

The proposal will with the addition of the Eldan Recycling Plant furthermore provide for enhanced

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productivity and efficiency whereby non-ferrous metals will be recovered and recycled, with the subsequent result of increased profitability.

Potential adverse impacts, based on the significance assessment, was generally of a higher significance before mitigation for the operational phase of the proposal, with the impact of noise emissions generated by the Eldan Recycling Plant and the health risks associated and an increase in vehicle traffic on the surrounding road network and Mundt street the highest. Significant impacts prior to mitigation furthermore pertain to the possible contamination of top and/or sub-soils, surface water pollution due to the contamination of stormwater and health and safety risks posed to site personnel, and surrounding sensitive receptors. The significance assessment proved a significance rating of medium for all the aforementioned impacts, prior to mitigation.

Bokamoso/ The EAP is of the opinion that due to the nature of the significance coupled to the potential impacts as outlined above, management measures presented and the proper and appropriate execution and monitoring of such measures implemented is critical to ensure the mitigation of the potential impacts to an acceptable significance level. The measures and management practices as outlined in Section 2.1, which also encompass specialist input, is regarded as sufficient to ensure the proper mitigation of the potential significant impacts identified, and thus considerably reducing the probability of the potential impacts identified occurring.

For alternative:

The alternative, based on the significance assessment provides for a number of socio-economic related beneficial impacts of high significance. It is anticipated that the proposal would be a direct and in-direct source of income for many people, and make a significant contribution towards sustainability in the sense that waste materials will become via the reclamation, recovery and recycling process a resource. Cumulative, and direct impacts, such as a reduction in carbon emissions, sustainable use of natural and irreplaceable resources, and the preservation of land-fill capacity is furthermore closely related and a consequence of the proposal. The alternative will deal with ferrous and non-ferrous metals in an integrated manner, incorporating the internationally accepted waste management hierarchy principles as per the National Waste Management Strategy (NWMS) of 2011.

It is anticipated that with the non-ferrous recovery process, the efficiency of a manual operation instead of a specialised mechanical process, will be lower, with the subsequent result of a lower recovery rate, and associated profits.

The potential adverse impacts, based on the significance assessment, were generally of a higher significance before mitigation for the operational phase of the alternative, but with no significant impact which relate to noise emissions, and associated health risks, due to the alternative non-ferrous metal recovery process which is proposed. Significant impacts prior to mitigation pertain to the possible contamination of top and/or sub-soils, surface water pollution due to the contamination of stormwater, the increase in vehicle traffic on the surrounding road network and Mundt Street and health and safety risks posed to site personnel and surrounding sensitive receptors. The significance assessment proved a significance rating of medium for all the aforementioned impacts prior to mitigation.

Bokamoso/The EAP is of the opinion that all potential adverse impacts which relate to the alternative can be sufficiently mitigated with the proper and appropriate execution and/or implementation of the

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

management measures and practices as outlined in Section 2.1 of this report, thus reducing the probability of the potential impacts occurring

Having assessed the significance of impacts of the proposal and alternative(s), please provide an overall summary and reasons for selecting the proposal or preferred alternative.

The Basic Assessment Process provided for, based on professional experience, technical expertise and specialist input, an identification of the impacts to be associated with the proposed MRF, and the assessment of the said impacts to determine their significance and ultimately the probability/likelihood of the impacts manifesting themselves. It is the opinion of the EAP that the potential impacts and their associated significance have been objectively assessed as to ascertain the selection of the most appropriate proposal/alternative.

The assessment of the significance of the proposal and the alternative proved that both are associated with a number of socio-economic related beneficial impacts of high significance. The proposal however provides for a greater number of socio-economic related beneficial impacts than the alternative as a result of the enhanced productivity and efficiency of non-ferrous metal recovery and recycling with the subsequent result of increased profitability. The proposal is thus subsequently based on the aforementioned aspect and its contribution towards increased profitability the preferred alternative when only taking the beneficial impacts anticipated into consideration.

As mentioned before, potential adverse impacts based on the significance assessment, was generally of a higher significance prior to/before mitigation for both the proposal and alternative. The potential adverse impacts are furthermore similar in nature and significance for both the proposal and alternative, except for the significance of potential impacts which relate to the aspects of ambient air quality and ambient noise levels. The significance of the potential noise impact and impacts which relate to ambient air quality was higher for the proposal as a direct result of the operation of the Eldan Recycling Plant, and thus the alternative could be considered as the preferred alternative prior to the application of management and mitigation practice. The significance of the said impacts could on the other hand be mitigated to acceptable levels through the proper and appropriate execution and monitoring of management measures. It should thus be noted that although the proposal provides for a greater number of adverse impacts prior to mitigation during the operational phase, as a result of the mitigation proposed the said impacts are negated, and as such both the proposal and/or the alternative is either acceptable.

It can in light of the above be concluded that the proposal is considered/selected, based on the results of the significance of adverse impacts after mitigation, and the greater amount of beneficial impacts which relate to the socio-economic environment to be associated, as the preferred.

7. 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	NO
X	

If "NO", indicate the aspects that require further assessment before a decision can be made (list the aspects that require further assessment):

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

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 and management measures as presented throughout the final BAR and attached EMPr, should be implemented;
- All engineering and structural design measures as proposed by the acoustical engineer should be implemented prior to the commencement of operation,
- All engineering and structural design measures as proposed by N N Metals which pertain to the dust extraction system should be implemented prior to final commissioning of operations. These mitigation measures regarding the engineering and structural design include
 - Constructing a 6m wall on the eastern boundary and around the corner of the northern boundary to eliminate dust blowing through the building and plant, as well as to minimise noise, towards the neighbouring property (the 6m dust and noise mitigation wall to be approved by the involved local authority).
 - Filters of the dust extraction system need to be replaced regularly and a filter cleaning programme should be implemented to clean these filters weekly, and
 - The gap between the wall and the roof of the building should be closed with 15mm polystyrene noise insulation to assist with the implementation of better noise mitigation measures in the plant building
- An external audit should be conducted by a relevant entity to ascertain the proper functioning of the Eldan dust extraction system prior to final commissioning of operations,
- The operational manager shall ensure to equip all workers on site with the necessary PPE,
- All site personnel should wear the necessary PPE, on site,
- A HSO shall be appointed for the duration of the operational phase to oversee all aspects pertaining to the health and safety of operations on site, and make recommendations were deemed necessary,
- A monitoring programme should be developed by a relevant independent entity to amongst others provide for the monitoring of emissions discharged from the Eldan Recycling Plant and implemented for the duration of operations,
- Baseline noise measurements should be taken by an independent specialist prior to the commissioning of operations to establish and verify site specific noise levels in relation to the acceptable level; and
- A monitoring programme should be compiled and implemented for the duration of the operational phase if the activity to provide for the periodic monitoring of noise emissions generated by the proposed MRF.

8. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)

If the EAP answers yes to Point 7 above then an EMP is to be attached to this report as an **Appendix H**

EMPr attached

X

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

It is required that if more than one item is enclosed that a table of contents is included in the appendix

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Route position information

Appendix E: Public participation information

Appendix F: Water use license(s) authorisation, SAHRA information, service letters from municipalities, water supply information

Appendix G: Specialist reports

Appendix H: EMPr

Appendix I: Other information

CHECKLIST

To ensure that all information that the Department needs to be able to process this application, please check that:

- Where requested, supporting documentation has been attached;
- All relevant sections of the form have been completed; and

Appendix A: Site Layout

Appendix B: Site Photographs







Appendix C: Facility Illustrations

Not Applicable

Appendix D: Route Position Information

Not Applicable

Appendix E: Public Participation

Appendix E1: Proof of site notice

**NOTICE OF APPLICATION FOR ENVIRONMENTAL
AUTHORISATION (EA) IN TERMS OF THE NATIONAL
ENVIRONMENTAL MANAGEMENT: WASTE ACT, 2008 (ACT NO.
59 OF 2008) (NEMWA)**

Notice is given of an application for Environmental Authorisation (EA) in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEMWA) and Government Notice 718 of 2009 submitted to the approving authority- the Gauteng Department of Agriculture and Rural Development (GDARD) for the following activity:

Name of project:	Proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility
Application Ref No:	Gaut: 002/12-13/W0004
Name of proponent	N. N. Metals (Pty) Ltd
Property Description:	The proposed Metal Reclamation Facility, is to be established on the remaining extent of erf 110, Waitloo Township, Registration Division: JR., Gauteng Province, and measures approximately 1, 2328 hectares in extent.
Location:	The proposed Metal Reclamation Facility is to be established at 300 Mundt Street, which is located within the existing Waitloo Industrial Node. The said property falls on a more regional scale within the jurisdiction of the City of Tshwane (CoT), Gauteng Province.
Project Description:	N.N. Metals (Pty) Ltd is a prominent and well-known dealer in ferrous and non-ferrous metals and their metal reclamation facilities services a number of scrap metal suppliers, dealer and vendors. The proposed activity entails establishment and operation of the new N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility.
Activities Applied for in terms of GN 718 of 2009	Category A: Activity 1 Activity 5 Activity 7 Activity 18 Activity 19
Date of Notice:	18 July 2012

**Queries regarding this matter should be referred to:
Bokamoso Landscape Architects & Environmental Consultants**

Contact person: Niel Brink

P.O. Box 11375
Maroelana 0161
www.bokamoso.net

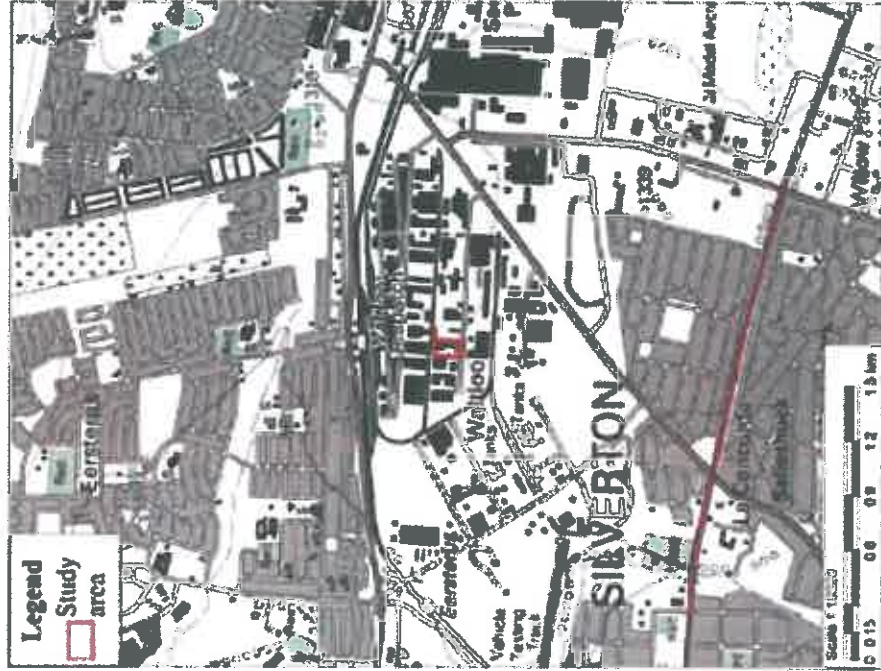
Tel: (012) 346 3810
Fax: 086 570 5659
E-Mail: lizelleg@mweb.co.za

In order to ensure that you are identified as a registered and Interested and Affected Party (I & AP), please submit your name, contact information and interest in the matter, in writing, to the contact person given above within 40 days of the publication of this Notice.

Appendix E2:
Written notices issued
to those persons detailed
in 1(b) to 1(f) above

NOTICE OF APPLICATION FOR ENVIRONMENTAL AUTHORISATION (EA) IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT : WASTE ACT, 2008 (ACT NO. 59 OF 2008) (NEMWA)

Notice is given of an application for Environmental Authorisation (EA) in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEM:WA) and Government Notice 718 of 2009 submitted to the approving authority- the Gauteng Department of Agriculture and Rural Development (GDARD) for the following activity:



Name of project:	Proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility
Application Ref No:	Gaut: 002/12-13/W0004
Name of proponent:	N. N. Metals (Pty) Ltd
Property Description:	The proposed Metal Reclamation Facility is to be established on the remaining extent of erf 110, Waitloo Township, Registration Division: J.R., Gauteng Province, and measures approximately 1,2328 hectares in extent.
Location:	The proposed Metal Reclamation Facility is to be established at 300 Mundi Street, which is located within the existing Waitloo Industrial Node. The said property falls on a more regional scale within the jurisdiction of the City of Tshwane (CoT), Gauteng Province.
Project Description:	N.N. Metals (Pty) Ltd is a prominent and well-known dealer in ferrous and non-ferrous metals and their metal reclamation facilities services a number of scrap metal suppliers, dealer and vendors. The proposed activity entails establishment and operation of the new N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility.
Activities Applied for in terms of GN 718 of 2009	Category A: Activity 1 Activity 5 Activity 7 Activity 18 Activity 19
Date of Notice:	16 July 2012

Queries regarding the application should be referred to:

Bokamoso Landscape Architects & Environmental Consultants

Contact Person: **Niel Brink**

P.O. Box 11375

Maroelana

0161

Tel: (012) 346 3810

Fax: 086 570 5659


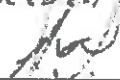
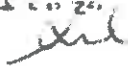

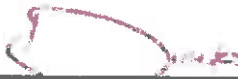








E-Mail: lizeleg@mweb.co.za

In order to ensure that you are identified as a registered and Interested and Affected Party (I & AP), please submit your name, contact information and interest in the matter, in writing, to the contact person given above within 40 days of the publication of this Notice.

Proposed N.N. Metals (Pty) Ltd Waitloo Reclamation Facility Land owner Notification

Acknowledgement of Receipt of land owner notification concerning the proposed Waitloo project.
July 2012

16

	Name	Address	Contact Details	Signature
1	Baroniel	246 MURKOT STREET WAILLOO	Email: baroniel@home.co.za Fax: 012 503 6518 Tel: 012 503 6031	
2	FLO	292 HUNDST WAILLOO	Email: CDC@LANTRONET Fax: 011 803399 Tel: 00 802 9990	
3	Tlaxo	309 MURKOT ST WAILLOO	Email: tswart@ext.5ball.co.za Fax: 012 503 6895 Tel: 012 503 9970	
4	Pemie	304 MURKOT ST	Email: pm@k@lantronet.co.za Fax: 012 503 6440 Tel: 012 503 6011	
5	Dobbe !hipbe	308 HUNDST WAILLOO	Email: byung@complete.co.za Fax: 012 503 7456 Tel: 012 510 603	
6	Diphe	309 MURKOT ST WAILLOO	Email: Fax: Tel: 012 842 3000	
7	Natasha	300 KURT ST WAILLOO	Email: Fax: Tel: 012 8038790	
8	Uduv. Niekai	297 ZASM ST. WAILLOO	Email: kudo@wastph.co.za Fax: Tel: 012 1960-2820	
9	SPOU KATICA	297 ZASM ST WAILLOO	Email: spou@katica.net Fax: 011 507 7792 Tel: 083 265 9706	
10	Eugene	ZASM STR 301	Email: Fax: Tel: 079 569 8169	
11	H. Hendricks	301 ZASM STR.	Email: Fax: Tel: 072 3821731	
12	Nardi	301 ZASM STR	Email: Fax: Tel: 063 666 2616	
13	WANE	301 ZASM	Email: Fax: Tel: 070 2639184	
	ALIL	301 ZASM	Email: Fax: 011 507 7792	

Appendix E3:

Proof of newspaper advertisements

...alste neem gegond op hul kennis
 vaaardigende en onderhandelings
 "Hulle moet saamkomes en geves
 lide oortuigings betragtters, op
 n konstruktiewe manier heroor
 kan debatteer en moei die mark-
 skapoy se strategie vrese uit die
 oog, verloor hie.
 In die vertede het die voorbiter
 vant die direkteur dikeels die rol van
 mentor of alderter veruul, maar
 delikede op sy skouers is dat hie
 alid meer rd hervoor ma.
 "Die formale aanstelling van n
 alderter of mentor kan in so n geval
 daik raaike wees."

...nke om die net
 kontrolees met
 n meer swaer
 kritiseke lye
 urmler wye
 ppydirektore
 e vaaardigede
 ook loepwye
 egerone ekan
 ryd en auidag
 rade en deur
 plan om die met
 identifiseer en
 (wikk)inspre-
 diatse is deur
 deursigede proses gevolg word om
 laar gesoeg on-
 mende direkt-
 met hvtkomende
 sientefaridie.

...hede aan te stel.
 "Daar is verskeie modelle vir op-
 volging en ontwikkeling in direk-
 sies. Vooramvarende maatskaps-
 pte stel gewoonlik twee of drie af-
 ternatiewe direkteure met groot
 potensiaal aan en onderaan hul
 groot deur afdeling en mentor.
 "Sulke alternatiewe direkteure
 woor direktieslewerderings by en
 nou oor n tydperk kennis van die
 maatskaps en sy strategiee oede.

...nke om die net
 kontrolees met
 n meer swaer
 kritiseke lye
 urmler wye
 ppydirektore
 e vaaardigede
 ook loepwye
 egerone ekan
 ryd en auidag
 rade en deur
 plan om die met
 identifiseer en
 (wikk)inspre-
 diatse is deur
 deursigede proses gevolg word om
 laar gesoeg on-
 mende direkt-
 met hvtkomende
 sientefaridie.

Maar "nuwe" word in direkteur aangestel, wat beteken die verskille
 ontwikkeling van direkteur se vermoë is belangrik. Foto: IFASE SOURCE

Woensdag 19 Julie 2012 Saka 24

Saka

Saaklik

Arbeid se nuwe IT-hoof moet stelsel regruk

Die departement van arbeid
 hoop die aanstelling van n "u-
 ters bekwame" hoof-nig-
 tingsamptenaar is die begin
 van die einde van die IT-sage
 wat hom en sy entiteit reeds
 die afgelope dekade laat les
 oop.
 Thabo Sefali (37), n IT-wer-
 ner, is pas aangestel om die
 departement se nuwe nlig-
 tingstrategie te
 dryf in die lig van die departe-
 ment se kontrak van R1,9 mil-
 jard met die staats-

tament en al sy entiteite, soos
 die Werkloosheidsverzekering-
 fonds en die Vergoedings-
 fonds, veroorsaak.
 Die kontrak kos R700 miljoen
 meer as die aanvanklike kon-
 trakbedrag van R1,2 miljard in
 Desember 2002.
 Die departement het vroeër
 aangevoer dit is n gevolg van
 Siemens se owername om die
 werk behoorlik te verrig.
 Die departement kon nie die
 kontrak voortydig beëindig nie

LIBAK-SKANDAAL

Sentrale
 "vermoec
 E-pos moes gevaarligte I

Dewald van Rensburg

bedank en Jerry

...nke om die net
 kontrolees met
 n meer swaer
 kritiseke lye
 urmler wye
 ppydirektore
 e vaaardigede
 ook loepwye
 egerone ekan
 ryd en auidag
 rade en deur
 plan om die met
 identifiseer en
 (wikk)inspre-
 diatse is deur
 deursigede proses gevolg word om
 laar gesoeg on-
 mende direkt-
 met hvtkomende
 sientefaridie.

...nke om die net
 kontrolees met
 n meer swaer
 kritiseke lye
 urmler wye
 ppydirektore
 e vaaardigede
 ook loepwye
 egerone ekan
 ryd en auidag
 rade en deur
 plan om die met
 identifiseer en
 (wikk)inspre-
 diatse is deur
 deursigede proses gevolg word om
 laar gesoeg on-
 mende direkt-
 met hvtkomende
 sientefaridie.



...nke om die net
 kontrolees met
 n meer swaer
 kritiseke lye
 urmler wye
 ppydirektore
 e vaaardigede
 ook loepwye
 egerone ekan
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...nke om die net
 kontrolees met
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 kritiseke lye
 urmler wye
 ppydirektore
 e vaaardigede
 ook loepwye
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...nke om die net
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 (wikk)inspre-
 diatse is deur
 deursigede proses gevolg word om
 laar gesoeg on-
 mende direkt-
 met hvtkomende
 sientefaridie.

Appendix E4:
Communications to and from
persons detailed in Point 2
and 3 above

user2

From: User3 <user3@bokamoso.net>
Sent: 13 July 2012 10:53 AM
To: 'inglejnrsingh@gmail.com'
Subject: Interested and Affected Party Member - Proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility
Attachments: Public Notice.pdf

To whom it may concern,

Please refer to the attached Public Notice regarding the proposed N.N. Metals (Pty) Ltd Waitloo Reclamation Facility Project.

Hope this finds you well.

Kind Regards

Juanita De Beer



**Environmental Consultants &
Landscape Architects**

Tel: 011 234 6101, 27 46 970 9550 | info@ecolandscape.co.za
46 Lelethu Road, Midrand, 2013

user2

From: User3 <user3@bokamoso.net>
Sent: 19 July 2012 11:01 AM
To: 'richard@icagroup.co.za'
Subject: Interested and Affected Party Member - Proposed N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility
Attachments: Public Notice.pdf

Dear Richard,

Please refer to the attached Public Notice regarding the proposed N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility Project.

Hope this finds you well.

Kind Regards/Vriendelike Groete

Juanita De Beer



Environmental Consultants &

Landscape Architects

Tel: 074123 446 4810 | F: 0741 4654 | e: info@enviro-land.com
154 Deoniso Road Ashlea Gardens, PTSA

user2

From: User3 <user3@bokamoso.net>
Sent: 13 July 2012 10:42 AM
To: 'gheath@geoscience.org.za'
Subject: Interested and Affected Party Member - Proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility
Attachments: Public Notice.pdf
Flag Status: Flagged

To whom it may concern,

Please refer to the attached Public Notice regarding the proposed N.N. Metals (Pty) Ltd Waitloo Reclamation Facility Project.

Hope this finds you well.

Kind Regards

Juanita De Beer



**Environmental Consultants &
Landscape Architects**

**Tel: 011 446 8210 | F: 011 470 9451 | e: info@ecol.co.za
36 Lombard Road | Sandton | Gauteng | SA**

user2

From: User3 <user3@bokamoso.net>
Sent: 16 July 2012 10:57 AM
To: 'JuanM@tshwane.gov.za'
Subject: Interested and Affected Party Member - Proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility
Attachments: Public Notice.ppt

To whom it may concern,

Please refer to the attached Public Notice regarding the proposed N.N. Metals (Pty) Ltd Waitloo Reclamation Facility Project.

Hope this finds you well.

Kind Regards

Juanita De Beer



**Environmental Consultants &
Landscape Architects**

Tel: 07 121 346 3810 | F: 07 86 570 5659 | e: info@ecm.co.za |
56 Tebuanne Road, Antelope Park, Pretoria

user2

From: User3 <user3@bokamoso.net>
Sent: 13 July 2012 10:48 AM
To: 'daniel.ramokone@transnet.net'
Subject: Interested and Affected Party Member - Proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility
Attachments: Public Notice.pdf
Flag Status: Flagged

To whom it may concern,

Please refer to the attached Public Notice regarding the proposed N.N. Metals (Pty) Ltd Waitloo Reclamation Facility Project.

Hope this finds you well.

Kind Regards

Juanita De Beer



**Environmental Consultants &
Landscape Architects**

1st Floor, 100, 101 & 102, 27 St. George's Avenue, Sandton, Johannesburg
36 Lebonaro Road, Ashlea Gardens, PEW

user2

From: User3 <user3@bokamoso.net>
Sent: 13 July 2012 10:47 AM
To: 'RudzanIM@tshwane.gov.za'
Subject: Interested and Affected Party Member - Proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility
Attachments: Public Notice.pdf
Flag Status: Flagged

To whom it may concern,

Please refer to the attached Public Notice regarding the proposed N.N. Metals (Pty) Ltd Waitloo Reclamation Facility Project.

Hope this finds you well.

Kind Regards

Juanita De Beer



**Environmental Consultants &
Landscape Architects**
Tel: 011 462 3011 Fax: 011 462 3012
96 Lebonheur Road Ardara Gardens, Pretoria

user2

From: User3 <user3@bokamoso.net>
Sent: 13 July 2012 10:47 AM
To: 'customerservice@randwater.co.za'
Subject: interested and Affected Party Member - Proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility
Attachments: Public Notice.pdf
Flag Status: Flagged

To whom it may concern,

Please refer to the attached Public Notice regarding the proposed N.N. Metals (Pty) Ltd Waitloo Reclamation Facility Project.

Hope this finds you well.

Kind Regards

Juanita De Beer



**Environmental Consultants &
Landscape Architects**

Tel: 07127 446 8220 | 07 27 86 570 5659 | info@ecolandscape.co.za
26 Lohomilo Road Avila Garden, PTA

user2

From: User3 <user3@bokamoso.net>
Sent: 13 July 2012 10:46 AM
To: 'kumen.govender@gauteng.gov.za'
Subject: Interested and Affected Party Member - Proposed N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility
Attachments: Public Notice.pdf
Flag Status: Flagged

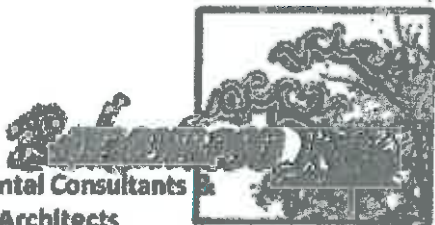
To whom it may concern,

Please refer to the attached Public Notice regarding the proposed N.N. Metals (Pty) Ltd Waltloo Reclamation Facility Project.

Hope this finds you well.

Kind Regards

Juanita De Beer



**Environmental Consultants &
Landscape Architects**
Tel: 011 461 3451 / 011 461 3452 / 011 461 3453 / 011 461 3454 / 011 461 3455
96 Fichardt Road, Addis Ababa, P.O. Box 116

user2

From: User3 <user3@bokamoso.net>
Sent: 13 July 2012 10:46 AM
To: 'schmidk@nra.co.za'
Subject: Interested and Affected Party Member - Proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility
Attachments: Public Notice.pdf
Flag Status: Flagged

To whom it may concern,

Please refer to the attached Public Notice regarding the proposed N.N. Metals (Pty) Ltd Waitloo Reclamation Facility Project.

Hope this finds you well.

Kind Regards

Juanita De Beer



**Environmental Consultants &
Landscape Architects**

111 27 121 546 8810 1 E 27 Rio 570 5655 | e-mail: jg@nra.co.za |
36 Leikwatho Road Ashbur Gardens, P.O.

user2

From: User3 <user3@bokamoso.net>
Sent: 13 July 2012 10:45 AM
To: 'paia@eskom.co.za'
Subject: Interested and Affected Party Member - Proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility
Attachments: Public Notice.pdf
Flag Status: Flagged

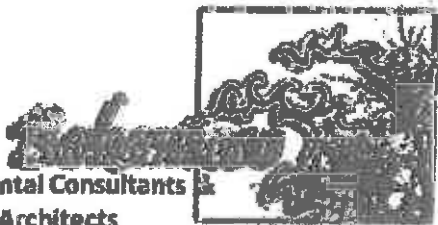
To whom it may concern,

Please refer to the attached Public Notice regarding the proposed N.N. Metals (Pty) Ltd Waitloo Reclamation Facility Project.

Hope this finds you well.

Kind Regards

Juanita De Beer



**Environmental Consultants &
Landscape Architects**

Tel: 011 470 5810 | Fax: 011 470 5859 | info@ekg.madico.co.za
56 Lebombo Road, White Garden, PTA

user2

From: User3 <user3@bokamoso.net>
Sent: 13 July 2012 10:45 AM
To: 'central@eskom.co.za'
Subject: Interested and Affected Party Member - Proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility
Attachments: Public Notice.pdf
Flag Status: Flagged

To whom it may concern,

Please refer to the attached Public Notice regarding the proposed N.N. Metals (Pty) Ltd Waitloo Reclamation Facility Project.

Hope this finds you well.

Kind Regards

Juanita De Beer



**Environmental Consultants &
Landscape Architects**
Tel: 011 21 341 3810 | F: 011 21 341 3811 | e: info@ecol.co.za
36 Ledwaba Road, Alder Park, JHB

user2

From: User3 <user3@bokamoso.net>
Sent: 13 July 2012 10:45 AM
To: 'keetm@dwaf.gov.za'
Subject: Interested and Affected Party Member - Proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility
Attachments: Public Notice.pdf
Flag Status: Flagged

To whom it may concern,

Please refer to the attached Public Notice regarding the proposed N.N. Metals (Pty) Ltd Waitloo Reclamation Facility Project.

Hope this finds you well.

Kind Regards

Juanita De Beer


**Environmental Consultants &
Landscape Architects**

Tel: 27 11 460 4930 | F: 27 11 470 4659 | info@ec-l.com
Sothoemotse Road, Avondale, Grahamstown, P.O.

user2

From: User3 <user3@bokamcso.net>
Sent: 13 July 2012 10:44 AM
To: 'maphata.ramphele@gauteng.gov.za'
Subject: Interested and Affected Party Member - Proposed N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility
Attachments: Public Notice.pdf
Flag Status: Flagged

To whom it may concern,

Please refer to the attached Public Notice regarding the proposed N.N. Metals (Pty) Ltd Waltloo Reclamation Facility Project.

Hope this finds you well.

Kind Regards

Juanita De Beer



**Environmental Consultants &
Landscape Architects**

**Tel: 2012 536 8101 | E: maphata.ramphele@bokamcso.net
56 Lombard Road Ardara Gardens, PTW**

user2

From: User3 <user3@bokamoso.net>
Sent: 13 July 2012 10:43 AM
To: 'asalomon@sahra.org.za'
Subject: Interested and Affected Party Member - Proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility
Attachments: Public Notice.pdf
Flag Status: Flagged

To whom it may concern,

Please refer to the attached Public Notice regarding the proposed N.N. Metals (Pty) Ltd Waitloo Reclamation Facility Project.

Hope this finds you well.

Kind Regards

Juanita De Beer



**Environmental Consultants &
Landscape Architects**

111 7th St, 340, 2030 | P.O. Box 5701 5650 | 083441 2202 | 021 461 2202
201 Eschelon Road Ashburton Gardens, P.O.A

user2

From: User2 <user2@bokamoso.net>
Sent: 10 August 2012 09:20 AM
To: todendaal@tricom1.co.za
Cc: rinaverster.nnm@gmail.com; louwrens.nnm@gmail.com
Subject: Re: Proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility-Background Information Document (BID)
Attachments: Background Information Document _BID_.pdf

Dear Teo

I refer to the application for Environmental Authorisation (EA) in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) for the proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility.

Please kindly find attached the Background Information Document (BID) for the said application process for your perusal.

We trust that you find the above in order. Please contact our office if you have any enquiries.

Regards

Niel Brink

**Bokamoso Landscape Architects &
Environmental Consultants**

T: +27(12) 346 3810
F: +27(86) 570 5659
lizellea@mweb.co.za
www.bokamoso.net

user2

From: User2 <user2@bokamoso.net>
Sent: 08 August 2012 04:07 PM
To: berend@homez.co.za; christina@homez.co.za; RudzaniM@tshwane.gov.za; JuanM@TSHWANE.GOV.ZA; inglejnsingh@gmail.com; richard@icagroup.co.za; asalomon@sahra.org.za; maphala.ramphele@gauteng.gov.za; keetm@dwaf.gov.za; paia@eskom.co.za; kumen.govender@gauteng.gov.za; casperm@tshwane.gov.za; gheath@geoscience.org.za; nndobochani@sahra.org.za; justicem@dwaf.gov.za; central@eskom.co.za; schmidk@nra.co.za; customerservice@randwater.co.za; daniel.ramokone@transnet.net; zmbill@environment.gov.za; lmahlangu@environment.gov.za
Cc: rinaverster.nnm@gmail.com; louwrens.nnm@gmail.com
Subject: RE: Proposed N.N. Metals (Pty) Ltd Metal Reclamation Facility-Background Information Document (BID)
Attachments: Background Information Document _BID_.pdf

To Whom It may concern:

Please kindly find attached the Background Information Document (BID) for the proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility for your perusal.

We trust that you find the above in order. Please contact our office if you have any enquiries.

Regards

Niel Brink

**Bokamoso Landscape Architects &
Environmental Consultants**

T: +27(12) 346 3810
F: +27(86) 570 5659
lizelleq@mweb.co.za
www.bokamoso.net

user2

From: User3 <user3@bokamoso.net>
Sent: 29 August 2012 10:44 AM
To: user2@bokamoso.net
Subject: FW: Porposed Metal Reclamation Facility - NN Metals, Waltloo
Attachments: Re: Dust from NN Metals Operation (39.9 KB); TRICOM Participation BID Project Ref Gaut-00212-13W0004.pdf

From: Bokamoso [<mailto:ontvangs@bokamoso.net>]
Sent: 29 August 2012 09:58 AM
To: user3@bokamoso.net
Cc: user1@bokamoso.net
Subject: FW: Porposed Metal Reclamation Facility - NN Metals, Waltloo

From: Theo Odendaal [<mailto:TOdendaal@tricom1.co.za>]
Sent: 29 August 2012 08:41 AM
To: Bokamoso
Cc: Norman Rambuda; Karin Smit
Subject: RE: Porposed Metal Reclamation Facility - NN Metals, Waltloo

Dear Niel

Thanks for your valued feedback.

As requested to our Karin Smit below, please find our attached formal correspondence in follow-up to our e-mail correspondence and previous meetings held with Louwrens du Preez (NN Metals) on the subject.

Thanks for the opportunity to participate in this process.

Kind regards

Theo Odendaal
Group SHEQ Manager
316B Mundt Street - WALTLOO – Pretoria - Republic of South Africa
P O Box 1725 - SILVERTON - 0127

 +27 12 803 0041

 +27 86 656 9048

 +27 74 1704 153

 todendaal@tricom1.co.za



 www.tricom1.co.za

 Before printing this email please think about the environment

From: Bokamoso [<mailto:lizelle@web.co.za>]
Sent: 28 August 2012 11:34 AM
To: Karin Smit
Cc: Theo Odendaal
Subject: Re: Porposed N.N. Metals, Waltloo Metal Reclamation Facility



316B Mundt Street - WALTLOO - Pretoria
Republic of South Africa
P O Box 1725 - SILVERTON 0127
+27 12 803 0041
+27 12 803 6040
info@tricom1.co.za
www.tricom1.co.za
VAT Vendor Number: 4400187474

Date
29 August 2012

Your Reference
BID Project Ref: Gaut-002/12-13/W0004

Enquiries
LT Odendaal
Email: todendaal@tricom1.co.za

For Attention: Niel Brink

**PARTICIPATION IN ENVIRONMENTAL ASSESSMENT - PROPOSED METAL RECLAMATION FACILITY
(NN METALS) WALTLOO**

Dear Sir

As requested, this serves as our formal correspondence in follow-up to our e-mail correspondence and previous meetings held with Louwrens du Preez (NN Metals) on the subject. The main issues are:

1. Dust generated by the shredder – a fine whitish dust is sometimes produced by the operation and comes through the dust extraction filter component which is blown directly into our yard and onto our workers working in the surrounding area;
 - a. What is the exact nature of the whitish dust?
 - b. What are the hazards and risks attached to the whitish dust?
 - c. Is a Material Safety Data Sheet available for this?
 - d. What is the engineering solution to move the outlets of the dust extraction filter component away from our yard?
 - e. What is the engineering solution to contain/ trap the whitish dust?
2. Noise pollution – this is not just outside but also a concern inside our main admin office at 304 Mundt.

Thank you for the opportunity to participate in this process.

Please do not hesitate to contact me should you require any further information.

Kind regards

Theo Odendaal
Group SHEQ Manager
TRICOM Structures South Africa

user2

From: Bokamoso <ontvangs@bokamoso.net>
Sent: 19 July 2012 11:04 AM
To: user2@bokamoso.net
Subject: FW: QUERIES - APPLICATION FOR ENVIRONMENTAL AUTHORISATION

From: Christina [<mailto:christina@homez.co.za>]
Sent: 19 July 2012 10:32 AM
To: lzelleg@mweb.co.za
Subject: QUERIES - APPLICATION FOR ENVIRONMENTAL AUTHORISATION

Goeie dag

Ons het die volgende vrae rondom NN Metals se bedrywigheede te Mundt straat Waltloo:

Graag wil ons meer besonderhede he en wat dit als behels:

1. Geraas & Besoedeling
2. Stof
3. Verbranding van metal
4. Diefstal - Is daar waarborg?
5. Hoeveel werkers is daar op die perseel

*Christina Finestone
Homez Trailers & Bodies
296 Mundt Street
Waltloo
Tel: (012) 803 6021
Fax: (012) 803 6818
Fax: 0862637124*



user2

From: Bokamoso <ontvangs@bokamoso.net>
Sent: 07 August 2012 07:59 AM
To: user1@bokamoso.net; user2@bokamoso.net
Subject: FW: Proposed N.N. Metals (Pty) Ltd Metal Reclamation Facility-Background Information Document (BID)
Attachments: Background Information Document _BID_.pdf

From: Maluleke Justice [<mailto:MalulekeJ@dwa.gov.za>]
Sent: 06 August 2012 08:29 PM
To: lizelleg@mweb.co.za
Cc: Siwelane Lilian (PTA); Tshifaro Rabelani
Subject: FW: Proposed N.N. Metals (Pty) Ltd Metal Reclamation Facility-Background Information Document (BID)

Dear Niel

Please send me a copy of the BAR for evaluation and comments.

Wisani Justice Maluleke

Department of Water Affairs

Crocodile/ Marico Water Management Area

Tel: 012 392 1409

Cell: 082 804 9817

Fax: 012 392 1486

e-mail: teo@dwaf.gov.za

From: Bokamoso [<mailto:lizelleg@mweb.co.za>]
Sent: 06 August 2012 04:07 PM
To: barend@homez.co.za; christina@homez.co.za; RudzaniM@tshwane.gov.za; JuanM@TSHWANE.GOV.ZA; inglejnrsingh@gmail.com; richard@lcagroup.co.za; asalomon@sahra.org.za; maphata.ramphele@gauteng.gov.za; Keet Marius (PTA); paia@eskom.co.za; kumen.govender@gauteng.gov.za; casperm@tshwane.gov.za; gheath@geoscience.org.za; nndobochani@sahra.org.za; Maluleke Justice; central@eskom.co.za; schmidk@nra.co.za; customerservice@randwater.co.za; daniel.ramokone@transnet.net; zmbill@environment.gov.za; lmahlangu@environment.gov.za
Cc: rinaverster.nnm@gmail.com; louwrens.nnm@gmail.com
Subject: RE: Proposed N.N. Metals (Pty) Ltd Metal Reclamation Facility-Background Information Document (BID)

To Whom it may concern:

Please kindly find attached the Background Information Document (BID) for the proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility for your perusal.

We trust that you find the above in order. Please contact our office if you have any enquiries.

Regards

Niel Brink

**Bokamoso Landscape Architects &
Environmental Consultants**

T: +27(12) 346 3810

F: +27(86) 570 5659

lizelle@mweb.co.za

www.bokamoso.net

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user2

From: Bokamoso <ontvangs@bokamoso.net>
Sent: 07 August 2012 12:31 PM
To: user2@bokamoso.net; user4@bokamoso.net; user3@bokamoso.net
Cc: user1@bokamoso.net
Subject: FW: New call Logged E9E002050A10C Re: RE: Proposed N.N. Metals (Pty)Ltd Metal Reclamation Facility-Background Information Document (BID)

From: customerservice@randwater.co.za [<mailto:customerservice@randwater.co.za>]

Sent: 06 August 2012 09:37 PM

To: Bokamoso

Subject: New call Logged E9E002050A10C Re: RE: Proposed N.N. Metals (Pty)Ltd Metal Reclamation Facility-Background Information Document (BID)

We are aware of your e-mail and will be attending to it as soon as possible. We apologize for the delay.



RAND WATER

Customer Service Centre

Customersevice@randwater.co.za

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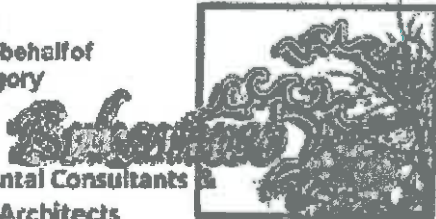
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Report illegal or suspicious activities! Use the Anti-Corruption Hotline
- phone toll free 0800 212 364

user2

From: Bokamoso <ontvangs@bokamoso.net>
Sent: 16 August 2012 12:00 PM
To: user2@bokamoso.net
Subject: FW: Interested and Affected Party Member - Proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility
Attachments: Public Notice.ppt

Elsa Viviers
Namens/on behalf of
Lizelle Gregory



Environmental Consultants &
Landscape Architects
Tel: 07120 546 5810 | F: 07 96 570 5659 | C: 083 255 8354
e: info@bokamoso.net | 30 Selborne Road, Silverdunes, P.O.

From: Juan C. Mostert [<mailto:JuanM@TSHWANE.GOV.ZA>]
Sent: 16 July 2012 11:02 AM
To: Bokamoso
Cc: Ilse Kotze
Subject: RE: Interested and Affected Party Member - Proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility

Juanita

Thanks for the info. Will the activities trigger Section 21 of the Air Quality Act, Act 39 of 2004?

Kind regards,

Juan Mostert
Air Quality Management



Environmental Management | Environmental Policy and Resource Management | 3rd Floor ;11
Frances Baard (Schoeman) Street | Pretoria | PO Box 1454 | Pretoria | 0001 | www.tshwane.gov.za

Tel: 012 358 3759 | Cell: 082 4443101 | Fax: 012 358 8934/0865045169 |
Email: juanm@tshwane.gov.za

From: Bokamoso [<mailto:lizelleg@mweb.co.za>]
Sent: 16 July 2012 10:57 AM
To: Juan C. Mostert
Subject: Interested and Affected Party Member - Proposed N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility

To whom it may concern,

Please refer to the attached Public Notice regarding the proposed N.N. Metals (Pty) Ltd Waitloo Reclamation Facility Project.

Hope this finds you well.

Kind Regards

Juanita De Beer



**Environmental Consultants &
Landscape Architects**

Tel: 021 212 446 3870 | F: 27 86 570 5659 | e: info@ecolandscape.co.za |
36 Likhonko Road, Sidea Gardens, P16

http://www.tshwane.gov.za/Pages/Email_disclaimer.aspx

Bokamoso

From: Theo Odendaal <TOdendaal@tricom1.co.za>
Sent: 08 February 2013 04:23 PM
To: Bokamoso
Cc: Karin Smit
Subject: Formal Feedback TRICOM Structures - Review for the proposed N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility
Attachments: TRICOM Feedback BAR- N.N. Metals MRF.zip; TRICOM Letter Feedback Draft BAR.pdf

Dear Niel

As agreed with you, attached please find:

1. Our formal letter with feedback on the draft BAR.
2. Compressed file with supporting references in letter.

Thank you for the opportunity you gave us to participate in this process.

Kind regards

Theo Odendaal
Group SHERQ Manager
316B Mendt Street - WALTLOO – Pretoria - Republic of South Africa
P O Box 1725 - SILVERTON - 0127

+27 12 805 0044 +27 74 1704 153
+27 86 655 2048 toodendaal@tricom1.co.za

 **TRICOM**



www.tricom1.co.za

 Before printing this email please think about the environment

From: Bokamoso [<mailto:lizelleg@mweb.co.za>]
Sent: 19 November 2012 04:37 PM
To: gheath@geoscience.org.za; asalomon@sahra.org.za; maphata.ramphele@gauteng.gov.za; justicem@dwaf.gov.za; central@eskom.co.za; schmidk@nra.co.za; kumen.govender@gauteng.gov.za; customerservice@randwater.co.za; RudzaniM@tshwane.gov.za; daniel.ramokone@transnet.net; casperm@tshwane.gov.za; inglejnrsingh@gmail.com; JuanM@tshwane.gov.za; christina@homez.co.za; Theo Odendaal
Subject: Interested and/or Affected Parties - Review for the proposed N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility

Dear Interested and/or Affected Party Member,

Please refer to the attached Review invitation regarding the proposed N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility Project.

Kind Regards/Vriendelike Groete

Jaanita De Beer

Bokamoso

From: Theo Odendaal <TOdendaal@tricom1.co.za>
Sent: 14 March 2013 03:59 PM
To: Bokamoso
Cc: louwrens@nnmetals.co.za; louwrens.nnm@gmail.com; Karin Smit; Norman Rambuda; Fanie Chidi; Baldur Engelbrecht
Subject: RE: NN Metals: metal dust and smoke - workers health

Dear Niel

Operations at NN Metals have resumed and our workers complained early in the week about the metal dust again. Yesterday and today workers really complained about a very bad 'chemical smoke/ smell' that comes from NN Metals as it appears that they incinerate plastics.

Are the required authorisations in place yet as you have said **"No operations may take place as the required authorisation(s) is still outstanding."** Will the neighbouring business of NN Metals be notified before they will be authorised to officially resume business? Will NN Metals just resume business as usual for now or until authorisations are in place?

What are the action plans/ steps that will be taken? **This is affecting the health of our workers.**

Best regards

Theo Odendaal
Group SHERQ Manager
316B Mundt Street - WALTLOO – Pretoria - Republic of South Africa
P O Box 1725 - SILVERTON - 0127
☎ +27 12 803 0041 📠 +27 74 1704 153
📠 +27 86 656 9048 @ todendaal@tricom1.co.za

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🌱 Before printing this email please think about the environment

From: Bokamoso [mailto:lizelle@mweb.co.za]
Sent: 21 February 2013 11:32 AM
To: Theo Odendaal
Cc: louwrens@nnmetals.co.za; louwrens.nnm@gmail.com; Karin Smit; Norman Rambuda
Subject: FW: NN Metals: metal dust issue - workers health

Dear Theo,

I refer to your e-mail correspondence below, as well as our telephonic conversation.

As per our discussion, we take note of your report, and are aware of the commencement of operations at N.N. Metals. Take note that formal action will be taken. No operations may take place as the required authorisation(s) is still outstanding.

We will refer back to Tricom in due course.

Regards

Niel Brink

From: Bokamoso [<mailto:ontvangs@bokamoso.net>]
Sent: 21 February 2013 11:17 AM
To: user2@bokamoso.net
Cc: user1@bokamoso.net
Subject: FW: NN Metals: metal dust issue - workers health

From: Theo Odendaal [<mailto:TOdendaal@tricom1.co.za>]
Sent: 21 February 2013 11:10 AM
To: Bokamoso (lizelleg@mweb.co.za); louwrens.nnm@gmail.com
Cc: Karin Smit; Norman Rambuda
Subject: NN Metals: metal dust issue - workers health

Dear Niel, Louwrens

Please see e-mail below on the metal dust issue reported by our workers at 304 Mundt today, after being reported since July 2012.

Also see attached mails dated 2012/07/12, 2012/08/28 & 2012/09/12.

To date, no solid action has been taken to stop the dust coming onto our workers that perform work near the fence adjacent to NN Metals. This cannot continue.

Please give us your action plan and timing to stop the problem as the health of our workers are becoming a problem.


Await your soonest feedback.

Best regards

Theo Odendaal
Group SHERQ Manager
316B Mundt Street - WALTLOO – Pretoria – Republic of South Africa
P O Box 1725 - SILVERTON - 0127
 +27 12 803 0041  +27 74 1704 153
 +27 86 656 9048  todendaal@tricom1.co.za

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From: Norman Rambuda
Sent: 21 February 2013 08:53 AM
To: Theo Odendaal
Subject: NN Metals metal dust issue

Hi Theo

Nathan reported the complaint of 304 workers that he received in the green area meeting about the metal dust from NN Metals. Can you please make a follow up on their implemented control to eliminate the same problem reported last year.

Best regards,

Norman Rambuda

SHEQ coordinator

316B Mundt Street - WALTLOO – Pretoria – Republic of South Africa
P O Box 1725 - SILVERTON - 0127

+27 12 803 0041

+27 86 656 9048

@ nrambuda@tricom1.co.za



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Loura

From: Bokamoso <ontvangs@bokamoso.net>
Sent: Tuesday, April 09, 2013 9:35 AM
To: user9@bokamoso.net
Cc: user1@bokamoso.net
Subject: FW: Appointment with Lizelle Gregory at NN Metals Offices.
Attachments: FW: NN Metals: metal dust issue - workers health (1.61 MB); RE: NN Metals: metal dust and smoke - workers health (63.1 KB)

Importance: High

From: Theo Odendaal [mailto:TOdendaal@tricom1.co.za]
Sent: 09 April 2013 09:13 AM
To: Bokamoso
Cc: user1@bokamoso.net; Karin Smit; Fanie Chidi; Kumaran Naicker; Norman Rambuda
Subject: RE: Appointment with Lizelle Gregory at NN Metals Offices.
Importance: High

Hi Lizelle

Thanks for your mail below and I take notice of the meeting that has been cancelled this morning and moved to 18 April 2013, 14h00 at NN Metals' offices.

Please see attached mails.

Our workers are really complaining about the metal dust from NN Metals as they are in operation and the dust is affecting our workers. I have again received many complaints from our workers since yesterday and again today, also from our logistics manager at 304 about the metal dust.

I refer you to the mail received from your Niel Brink on 21/02/2013:

"we are aware of the commencement of operations at N.N. Metals. Take note that formal action will be taken. No operations may take place as the required authorisation(s) is still outstanding."

It appears as if nothing has been done as per the mail from Niel Brink?? As per my mail on 14/03/2013: **"This is affecting the health of our workers."**

Best regards

Theo Odendaal
Group SHERQ Manager
316B Mundt Street - WALTLOO - Pretoria - Republic of South Africa
P O Box 1725 - SILVERTON - 0127

+27 12 803 0041
+27 86 656 9048

+27 74 1704 153
todendaal@tricom1.co.za

 **TRICOM**



TQVRheinold®
CERT
ISO 9001
ISO 14001
BS OHSAS 18001

From: Bokamoso [<mailto:lizelleg@mweb.co.za>]
Sent: 09 April 2013 08:52 AM
To: Theo Odendaal
Cc: user1@bokamoso.net
Subject: Appointment with Lizelle Gregory at NN Metals Offices.

Goeie more Theo,

Die afspraak met Lizelle Gregory van ons kantoor van die 9 April 2013, is dan nou geskuif na die 18 April 2013 om 14h00,

By NN Metals se kantore. Ons vra om verskoning vir die ongerief wat die verskuiwing kon meebring.

Groete,

Louisa du Toit



Landscape Architects &
Environmental Consultants

T: (+27)12 346 3810 | F: (+27) 86 570 5659 | E: lizelleg@mweb.co.za | www.bokamoso.net
36 Lebombo Street, Ashlea Gardens, Pretoria | P.O. Box 11375 Maroelana 0161

Appendix E5:
**Minutes of any public and/or
stakeholder meetings**

LEBOMBO GARDEN BUILDING
36 LEBOMBO ROAD
ASHLEA GARDENS
0081

P.O. BOX 11375
MARDELANA
0181

Tel: (012) 245 3810
Fax: 066 570 5659
E-mail: lizelleg@nwweb.co.za
Website: www.bokamoso.net



26 April 2013

Mr. Theo Odendaal
Plant Engineer
TRICOM (Pty) Ltd
1237 Market Street
Hercules
0082

Dear Theo,

RE: SUMMARY OF DISCUSSION MEETING REGARDING THE NN METALS METAL RECLAMATION FACILITY DUST AND NOISE POLLUTION MEETING HELD AT THE TRICOM OFFICES ON 2013

It was requested at the meeting that Bokamoso summarise the discussion that was held regarding the above mentioned project in order to confirm the issues raised and undertakings made.

During the meeting Tricom confirmed that the dust and noise caused by the NN Metals plant activities are causing a significant amount of noise and dust pollution. Tricom also mentioned that the plant formerly crushed / shredded something that released a white powder in the environment. Apparently some of the Tricom workers are currently wearing masks to prevent them from inhaling emissions / dust. During certain periods of the day the noise levels are very high and it creates a nuisance, especially during office meetings.

Mr Human (owner of NN Metals) explained that the purpose of the meeting was to discuss the matter with Tricom (the adjacent landowner) and to supply details regarding mitigation measures that are currently implemented to reduce / prevent the dust and noise pollution. Mr. Human indicated that he wanted to establish a good working relationship with the adjacent land-owner and that he will always be open to suggestions and discussions regarding activities that are regarded as a nuisance to the surrounding environment.

Tricom confirmed that they currently experience dust pollution in the form of a fine white material and some fine traces of copper are also sometimes identified. Mr. Human explained that the white material / dust is not harmful. When cables are stripped, the white cotton around the cable is also removed and the white deposits that are blown into neighbouring property originate from the removed cotton. Mr. Human could not give any explanation regarding the origin of the copper particles, but undertook to investigate the matter. Mr. Human also explained that the white powder that was originally released originated from

an undesirable process during an experimental stage. This process involved pyron that went through the machine and the pyron caused the white dust. The pyron can however not go through the machine, because it breaks the blades. This process will not take place at this plant anymore and therefore the white dust generated by the pyron shredding will no longer be a problem.

It was then explained by NN Metals that the existing design of the plant and the wind direction causes dust to be blown over the wall and into the Tricom property. Mr. Human undertook to put the following mitigation measures in place within the next 2 – 3 weeks:

- NN Metals will erect a 6m high wall between the cable recycling plant and Tricom in order to prevent any further dust pollution. Mr. Human however also wanted Tricom to take note of the fact that the plant is not supposed to generate any dust. According to the Belgium manufacturer it is a dust free plant and they recommended that NN Metals replace the filters. According to Mr. Human the filters were all replaced with the correct filters approximately 1 week ago and it was no longer causing dust pollution. Mr. Human also explained that they now implemented a filter cleaning programme. The filter cleaning is scheduled for once a week. Mr. Human confirmed that the 6m wall to be erected will only be an additional dust prevention measure, which should not be necessary if the plant functions as it is supposed to. Mr. Human furthermore agreed to also expand the dust and noise prevention wall of the plant building around the corner of the building in order to prevent the wind that blows through the building from blowing dust and noise towards Tricom.

Mr. Human also explained that he was planning to close the gap between the wall and the roof of the building and he already purchased 15mm polystyrene noise insulation to assist with the implementation of even better noise mitigation measures in the plant building. Furthermore, the plant had no door and the door opening has already been furnished with a solid door.

Tricom requested that Mr. Human conduct a noise impact assessment. Mr. Human explained that he already obtained fee proposals for a noise impact assessment and it was extremely expensive. Mr. Human then indicated that he feels comfortable that the proposed noise and dust mitigation measures will address the problems. Tricom also mentioned that they recommended during former discussions with NN Metals that NN Metals run the dust venting system through a water base, which will capture the dust effectively. Mr. Human explained that they investigated that option, but according to the manufacturer this is not necessary, because the system is supposed to be a dust free system.

Mrs. Gregory of Bokamoso recommended that the noise mitigation measures be implemented and that the noise levels and dust generated be monitored by Tricom in order to determine whether they are satisfied with the mitigation measures applied.

If Tricom is not satisfied, NN Metals will investigate the matter in more detail (even if it requires a noise impact assessment / noise input and / or air pollution inputs) in order to mitigate the impacts to even lower levels.

Tricom agreed with the proposal and requested that NN Metals supply a completion date for the mitigation measures. Mr. Human confirmed that the works will be completed by approximately 29 April 2013.

Tricom undertook to remove all the dust from the affected area after NN Metals confirmed that the mitigation measures are implemented. A trial period of ±1 week will be allowed to test the success of the measures applied.

Tricom / Bokamoso will then arrange another meeting, which will involve a site inspection in order to confirm whether they are satisfied with the measures applied. The way forward will be determined at the follow-up meeting and the EMP to be compiled as part of the BAR will also ensure that the noise and dust issues are addressed during the construction and operational phases.

The final Basic Assessment report to be compiled, will also include the summary of the discussions. Furthermore, the EMP, which will be annexed to the FBAR will include the mitigation measures as agreed upon. The EMP will also make provision for the on-going monitoring of the noise and dust during the operational phase. It will also be proposed that Telkom inform the appointed ECO as soon as they experience elevated levels of noise and dust.

A special meeting will then be arranged between Tricom and NN Metals in order to discuss the matter. If necessary NN Metals will add additional mitigation measures (if reasonable for an industrial area) to address the concerns of Tricom.

If necessary the EMP will also be amended by the EAP / ECO to accommodate the additional mitigation measures.

Please confirm whether you agree with this summary and do not hesitate to contact writer if there are any queries regarding this matter.

Yours faithfully,

Lizelle Gregory

CC: Louwrens du Preez

Mr. Piet Human

Ms. Karen Smit

**Appendix E6:
Comments and Responses
Report**

Walloo N.N. Metals - Public Participation - Interested and Affected Parties - Issues and Response Report

No	Registered Parties	Contact details	Date	Issue	Response
1	Andrew Salomon SAHRA	Tel: 021 462 4502 Email: asalomon@sahra.org.za	27/10/2011	<p>In terms of the National Heritage Resources Act, no 25 of 1989, heritage resources, including archaeological or palaeontological sites over 100 years old, graves older than 60 years, structures older than 60 years are protected. They may not be disturbed without a permit from the relevant heritage resources authority. This means that before such sites are disturbed by development it is incumbent on the developer to ensure that a Heritage Impact Assessment is done. This must include the archaeological component (Phase 1) and any other applicable heritage components. Appropriate (Phase 2) mitigation, which involves recording, sampling and dating sites that are to be destroyed, must be done as required. The quickest process to follow for the archaeological component is to contract an accredited specialist (see the website of the Association of Southern African Professional Archaeologists www.asapa.org.za) to provide a Phase 1 Archaeological Impact Assessment Report. This must be done before any large development takes place. The Phase 1 Impact Assessment Report will identify the archaeological sites and assess their significance. It should also make recommendations (as indicated in section 38) about the process to be followed. For example, there may need to be a mitigation phase (Phase 2) where the specialist will collect or excavate material and date the site. At the end of the process the heritage authority may give permission for destruction of the sites. Where bedrock is to be affected, or where there are coastal sediments, or marine or river terraces and in potentially fossiliferous superficial deposits, a Palaeontological Desk Top study must be undertaken to assess whether or not the development will impact upon palaeontological</p>	<p>No heritage impact will be needed for the proposed development as the majority of the infrastructure has already been constructed and no heritage resources are seen on site.</p>

2	<p>Theo Odendaal TRICOM Structures</p>	<p>Tel: 012 803 0041 Email: todendaal@tricom1.co.za</p>	22/11/2011	<p>resources - or at least a letter of exemption from a Palaeontologist is needed to indicate that this is unnecessary. If the area is deemed sensitive, a full Phase 1 Palaeontological Impact Assessment will be required and if necessary a Phase 2 rescue operation might be necessary. If the property is very small or disturbed and there is no significant site the heritage specialist may choose to send a letter to the heritage authority to indicate that there is no necessity for any further assessment. Any other heritage resources that may be impacted such as built structures over 60 years old, sites of cultural significance associated with oral histories, burial grounds and graves, graves of victims of conflict, and cultural landscapes or viewscapes must also be assessed.</p> <p>As requested, this serves as our formal correspondence in follow-up to our e-mail correspondence and previous meetings held with Louwrens du Preez (NIN Metals) on the subject. The Main issues are:</p> <p>1. Dust generated by the shredder - a fine whitish dust is sometimes produced by the operation and comes through the dust extraction filter component which is blown directly into our yard and onto our workers working in the surrounding area:</p> <p>a. What is the exact nature of the whitish dust?</p> <p>b. What are the hazards and risks attached to the whitish dust?</p> <p>c. Is a Material Safety Data Sheet available for this?</p> <p>d. What is the engineering solution to move the outlets of the dust extraction filter component away from our yard?</p> <p>e. What is the engineering solution to contain/trap the whitish dust?</p> <p>2. Noise pollution - this is not just outside but also a concern inside our main admin office at 304</p>	<p>Karin Smit from Tricom Structures was invited by Mr. Louwrens Du Preez for a meeting (12 September) to discuss Tricom Structures concerns. A meeting was held and a subsequent visual site visit and inspection was done.</p> <p>1a. The whitish dust is a combination of insulation, chalk and woven interweaved cable insulation used in Flexible Electrical Trailing Cable for Mines.</p> <p>1b. According to the Manufacturer there are no hazards to this product. NIN Metals also contacted some of their clients' SHEQ departments to inquire, this included Anglo American, Petra Diamonds and Debawana. Jwaneng Mine the product is not listed as hazardous at any of these mines.</p> <p>1c. No M.S.D.S. is available from any of the suppliers or the abovementioned mines.</p> <p>1d. No dust whatsoever is coming from the dust extraction unit. It is possible that dust is blown from the granulation plant into the yard. The factory's Northern side will be partially closed up to the Rasper and the Eastern side will be closed off completely per our discussion and site visit with Mrs Karin Smit and Louwrens du Preez.</p> <p>1e. - No dust is released from the dust extraction</p>
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				<p>Mundt.</p>	<p>filter system.</p> <ul style="list-style-type: none"> - The dust collection room door to be fitted and sealed. - The top part of the dust collection room to be sealed with corrugated sheets. - The bottom part of the structure to be sealed with spray foam. - Area to be cleaned daily to avoid windblown dust to enter Tricom Structures property. - The eastern wall to be closed off with corrugated sheets. - The northern part of the structure to be closed off up to the Rasper. - Area to be cleaned daily. <p>NN Metals contacted Eldan Recycling the supplier of the granulation plant regarding dust emissions, they confirmed that the granulation plant with the dust extraction system in place confirms to all European emission standards.</p> <p>2. The generator (only to be used as a backup for power failures)</p> <ul style="list-style-type: none"> • Located at the eastern boundary a silencer will be fitted to the current exhaust outlet. • The generator will be placed in enclosed structure and or shipping's container. <p>The granulation plant</p> <ul style="list-style-type: none"> • The eastern wall to be closed off with corrugated sheets. • The northern part of the structure to be closed off up to the Rasper <p>Mrs Karin Smit invited NN Metals to visit Tricom Structures site before starting the granulation plant this was done 08:00 on 13 September to inspect if any dust was released from the extraction filters or blown into Tricom Structures yard. On inspection no dust whatsoever was found to be blown into Tricom Structures yard for the duration of the inspection.</p>
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3	Juan Mostert Air Quality Management	Tel: 012 368 3759 Email: juanm@tshwane.gov.za	16/07/2012	Thanks for the info. Will the activities trigger Section 21 of the Air Quality Act, Act 39 of 2004?	NN Metals are confident in its investigations that no hazardous materials are used in our process and will continue to update all products Material Safety Data Sheets.
4	Christina Finestone Homez	Tel: 012 803 6021 Email: christina@homez.co.za	19/07/2012	We would like more information regarding the following: 1. Noise and Pollution 2. Dust 3. Melting of metal 4. Crime – any guarantees? 5. How many workers will be on site?	Investigation is still underway to determine whether it will trigger any legislation with regards to Air Quality. At the follow-up site visit, where Tricom Structures will be present as well, it will be confirmed whether any additional studies will be required.
5	Rudzani Mukheii City of Tshwane	Tel: 012 358 8667 Email: RudzaniM@tshwane.gov.za	14/12/2012	In making its comments in respect of the proposed activity the Department has taken, inter alia, the following into consideration: a) The information contained in the Draft Basic Assessment Report compiled by Marsh Environmental Services dated October 2012. b) Information obtained from the Department's information base including inter alia: - Geographic Information System (GIS data); - Gauteng Open Space Plan (GOSP). c) Compliance with applicable Municipal, provincial and national policies and guidelines including: - The National Environmental Management Act 1998 (Act 107 of 1998) (NEMA); its decision making principles and Environmental Impact Assessment Regulations; - The Tshwane Integrated Environmental Policy (TIEP); - The City Development Strategy; and The Tshwane Open	Your comments are appreciated. Please note that a information document will be compiled soon with all the necessary information. We will register you on our database as an interested party. Points 1-3 are discussed with the Tricom issues; please refer to No. 2 and 6. 4. Crime in the area will not increase as a result of this proposed development. Labourers within the industrial area will arrive in the mornings and leave the area again after the day's work shift. 5. 28 workers will be on site
					a. Engineers were appointed by NN Metals for a Storm Water Master Plan. This has been received by Bokamoso and will be part of the annexures. b. All mitigation measures will be adhered to. c. The construction and functioning of the activity will comply with the Occupational Health and Safety Standards as set out in the Occupational Health and safety Act no. 85 of 1993 at all times. d. The proposed precautionary measures contained in the Noise Assessment report for noise generated from the shredder and the generator will be effectively applied and monitored. e. An Environmental Control Officer will be appointed to enforce the final and approved EMP.

Space Framework (TOSF) Policy Statements and Typologies.

Recommendations: The Department recommends that the following issues be taken into consideration:

a) A Stormwater Management Plan must be included within the final Basic Assessment Report. The plan should aim to prevent pollution, erosion and siltation during both the construction and operational phases. The increase in speed, quantity and quality of surface stormwater should also be addressed. Surface water control should be directed away from the development into designed storm water flow areas. All stormwater outlets into any wetland or natural water bodies should be indicated on the plan.

b) All the mitigation measures indicated in the report must be fully respected and adhered to at all time.

c) The construction and functioning of the activity must comply with the Occupational Health and Safety Standards as set out in the Occupational Health and safety Act no. 85 of 1993 at all times.

d) The proposed precautionary measures contained in the Noise Assessment report for noise generated from the shredder and the generator must be effectively applied and monitored in order to reach environmentally acceptable noise levels.

e) The proposed activity must be constructed and functioned according to the final and approved EMP. The approved finalized EMP is the legally binding document. An Environmental Control Officer should be appointed for the proposed construction phase of the development to enforce the approved EMP. The ECO will have a site visit report where activity evaluation will be completed. Should any discrepancies or deviations from the approved EMP arise during construction; the ECO will be responsible to indicate this within the report. Site visit reports should be regularly submitted to this Department for perusal.

6	<p>Theo Odendaal TRICOM Structures</p>	<p>Tel: 012 803 0041 Email: todendaal@tricom1.co.za</p>	08/02/2013	<p>The Department has no objection to the Draft Basic Assessment Report, subject to the consideration of the above recommendations.</p> <p>Feedback on the Draft Basic Assessment Report:</p> <p>1. p.62 Table 8.11.1 mitigation measures: What design measures are going to be implemented on the specialised recycling plant? When will these design measures be implemented (both on specialised recycling plant and diesel generator)? How and when will the effectiveness of these measures be measured? p.63 Table 8.11.1 mitigation measures: When will the baseline noise measurements be conducted? Measurements must be taken at the eastern border to TRICOM and must be shown not to exceed 70dB. TRICOM needs a copy of this report. Results of on-going monitoring of noise levels must be copied to TRICOM.</p> <p>2. p.65 Table 8.14 "An external audit should be conducted by the supplier to establish and ensure that the dust extraction system (Eidan Recycling Plant) is functioning properly, and/or recommendations made to enhancing its functionality prior to final commissioning." TRICOM needs a copy of this report.</p> <p>3. p.68 Table 6.18 Significance rating = 4 TRICOM is not convinced of this rating as a whitish dust has been released onto TRICOM's premises and workers during plant operation at several instances and not sure of this came through the dust extraction system or from general plant operation?</p> <p>4. p.71 Table 9: Summary of Significance Assessment after Mitigation This assessment can only be conducted after all mitigation measures have been implemented...! take it that this is a potential assessment after</p>	<p>1. The recycling plant will be sealed off with IBR however should this not be sufficient, a 15mm polyethylene type noise insulation could be installed. This IBR closure will be extended to the dust collection chamber to ensure no windblown dust is blown into Tricom's yard.</p> <p>A 6m high wall will be constructed between the generator and the dust extraction unit to further assist with the noise and or dust pollution.</p> <p>All the above mentioned design measures are already in place since the 15th May 2013. The filter room and filters are cleaned once a week. The generator external exhaust system is also fitted and this would also assist in the noise reduction.</p> <p>With regards to the measuring of effectiveness, NN Metals suggest a follow up meeting with Tricom to discuss the mitigating measures that NN Metals put in place. A quarterly meeting could also be held if needed. The plant has been running as per usual and no complaint were received on dust or noise pollution from Tricom since the 15th of May 2013</p> <p>2. Copies of the requested reports will be sent to Tricom.</p> <p>3. The issue regarding the whitish dust was discussed at the meeting with Bokamoso, NN Metals and Tricom on 23 April 2013.</p> <p>Mr. human explained that the white material/dust is not harmful. When cables are stripped, the white cotton around the cable is removed and the white deposits blown into the neighbouring property originates from this removed cotton.</p> <p>It was also explained that the white powder originally released came from an undesirable process during an experimental stage. The process involved pyron that went through the machine and the pyron caused the white dust. However, the pyron cannot go</p>
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	<p>mitigation.</p> <p>5. p.85 Paragraph 5 ENVIRONMENTAL IMPACT STATEMENT, Proposal (Process/Technology) The significance assessment proved a significance rating of medium for all the aforementioned impacts, prior to mitigation: Table 9 specifically mentions the rating is low for ambient noise levels i.e. after mitigation. Table 8.11.1 mentions the significant rating is high (25) for excessive noise. The wording should be changed to reflect this (Please correct me if I misunderstand this?)</p> <p>6. p.90 Paragraph 7 RECOMMENDATION OF PRACTITIONER All engineering and structural design measures as proposed by the acoustical engineer should be implemented prior to the commencement of operation. The plant is already operating....</p> <p>7. Figure 15 Surrounding Business Entity Map TRICOM structures incorrectly indicated by no.8 on photo</p> <p>8. Appendix B: Site Photographs, Site photo 4 Why must the outlets of the dust extraction facility point towards TRICOM right on our boundary with NN Metals? What is NN Metals going to do to change this?</p> <p>9. Appendix E4: Communications to and from persons detailed in Point 2 and 3 above TRICOM Structures letter date 29 August 2012: To date, no resolve has been received for points 1b, 1d or 1e in letter.</p> <p>10. Table 3-3 Environmental Management/Mitigation measures applicable to the operational phase Ambient Air Quality Mitigation measure: The engineering solutions proposed by N.N. Metals should be implemented</p>	<p>through the machine as it breaks the blades. This process will not take place at the NN Metals MRF anymore and therefore the white dust generated by the pyron shedding will no longer be a problem. Significance rating remains probable values and is not definite.</p> <p>4. Significance rating remains probable values and is not definite. A significance rating after mitigation is a potential assessment.</p> <p>5. The Significance Rating referred to in Table 8.11.1 is prior to the implementation of mitigation measures and those referred to in Table 9 is after mitigation measures have been put in place. Paragraph 5 refers to the construction phase and not the operational phase and therefore the wording is correct.</p> <p>6. NN Metals MRF only needs Environmental Authorisation (EA) for two listed activities and these operations may not commence prior to the Approval by the relevant Authority. General operational activities may continue as an EA is not required for these activities.</p> <p>7. Is corrected in the Final Basic Assessment Report.</p> <p>8. Mitigation measures for the dust extraction facility was discussed and decided upon, during the meeting with Bokamoso, NN Metals and Tricom on 23 April 2013 in order to bring down the noise and dust levels. NN Metals will erect a 6m high wall between the cable recycling plant and Tricom's property in order to prevent any further dust pollution. Mr. Human however also wanted Tricom to take note of the fact that the plant is not supposed to generate any dust. According to the Belgium manufacturer it is a dust free plant and they recommended that NN Metals replace the filters. According to Mr. Human the filters were all replaced with the correct filters approximately 1 week prior to the meeting and it was no longer causing dust pollution. It was also explained that they now implemented a filter cleaning programme. The filter cleaning is scheduled for once</p>
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<p>prior to final commissioning of the recycling plant. What is the proposed date for implementation? Ambient Noise Levels Mitigation measure: Baseline noise measurements shall be conducted /facilitated by an independent specialist. Copy of these reports needed by TRICOM</p>	<p>11. EMERGENCY PLAN Paragraph 9 TRICOM must always be notified upfront of any emergency drill/exercise.</p>	<p>12. Appendix 1 (X): EMP (N.N. Metals) Noise Control – aspect, monitoring mechanism – operational audit: Reports of operational audits to be copied to TRICOM</p>	<p>13. Appendix 1 (xii): Engineering Solutions proposed by N.N. Metals What are the hazards and risk attached to the whitish dust? – According to the manufacturer there are no hazards to this product. This answer is not sufficient and needs further investigation, specifically with regards to inhaling this dust by TRICOM's workers. Proper facts needed about hazards and risks to a person's health when inhaling this dust. What is the engineering solution to contain/trap the whitish dust? – No dust is released from the dust extraction filter system. Denying that dust is released from the extraction system is not resolving the issue that whitish dust has come from NN Metals at various instances onto our workers and property and is not answering the question or bring solution. Noise Pollution engineering solutions for generator and granulation plant When will these actions be implemented? New noise measurements are needed after mitigation measures have been implemented to prove that actions taken have been successful.</p>
<p>a week. Mr. Human confirmed that the 6m wall to be erected will only be an additional dust prevention measure, which should not be necessary if the plant functions as it is supposed to. Furthermore, NN Metals agreed to also expand the dust and noise prevention wall of the plant building around the corner of the building in order to prevent the wind that blows through the building from blowing dust and noise towards Tricom.</p>	<p>Mr. Human also explained that he was planning to close the gap between the wall and the roof of the building and he already purchased 15mm polystyrene noise insulation to assist with the implementation of even better noise mitigation measures in the plant building. Furthermore, the plant had no door and the door opening has already been furnished with a solid door.</p>	<p>9. All these points refer to the dust generation and pollution. See point 3 and 8 for the discussion regarding this in the meeting held on 23 April 2013.</p>	<p>As reported in the letter dated 29 August 2012, according to the Manufacturer there are no hazards to this product NN Metals also contacted some of their clients' SHEQ departments to inquire, this included Anglo American, Petra Diamonds and Debswana, Jwaneng Mine the product is not listed as hazardous at any of these mines.</p>
<p>10. Implementation of these operational mitigation measures will only take place after the Environmental Authorisation has been approved. Copies of the requested reports will be sent to Tricom.</p>	<p>11. Tricom will be notified before any emergency drills/exercises take place at NN Metals.</p>	<p>12. Copies of the requested reports will be sent to Tricom.</p>	<p>13. At the meeting held on 23 April 2013, all these engineering solutions were discussed and mitigation measures for the noise and dust pollution were decided upon by both Tricom and NN Metals.</p>

					<p>Please refer to points 3 and 8 above for the proposed mitigation measures.</p> <p>As soon as mitigation measures have been put into place, new measurements will be recorded to determine the effectiveness of these mitigation measures.</p>
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Appendix E7:
Comments from I & AP's on
Basic Assessment Report



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Date	Your Reference	Our Reference	Enquiries
08 February 2013	Gaut-002/12-13/W0004		LT Odendaal
			Email: lodendaal@tricom1.co.za

For Attention: Niel Brink

Feedback on the draft Basic Assessment Report

Dear Sir

Below is our feedback:

1. See attached file [TRICOM Feedback 1 BAR- N.N. Metals MRF].
p.62 Table 8.11.1 mitigation measures:
What design measures are going to be implemented on the specialised recycling plant?
When will these design measures be implemented (both on the specialised recycling plant and diesel generator?
How and when will the effectiveness of these measures be measured?
p.63 Table 8.11.1 mitigation measures:
When will the baseline noise measurements be conducted?
Measurements must be taken at the eastern border to TRICOM and must be shown not to exceed 70dB.
TRICOM needs a copy of this report.
Results of on-going monitoring of noise levels must be copied to TRICOM.
2. See attached file [TRICOM Feedback 2 BAR- N.N. Metals MRF]
p.65 Table 8.14 "An external audit should be conducted by the supplier to establish and ensure that the dust extraction system (Eldan Recycling Plant) is functioning properly, and/or recommendations made to enhancing its functionality prior to final commissioning"
TRICOM needs a copy of this audit report.
3. See attached file [TRICOM Feedback 3 BAR- N.N. Metals MRF]
p.68 Table 8.18 Significance Rating = 4
TRICOM is not convinced of this rating as a whitish dust has been released onto TRICOM's premises and workers during plant operation at several instances and not sure if this came through the dust extraction system or from general plant operation?
4. See attached file [TRICOM Feedback 4 BAR- N.N. Metals MRF]
p.71 Table 9: Summary of Significance Assessment ~~after Mitigation~~
This assessment can only be conducted AFTER all mitigation measures have been implemented...
I take it that this is a potential assessment after mitigation.
5. See attached file [TRICOM Feedback 5 BAR- N.N. Metals MRF]
p.85 paragraph 5 ENVIRONMENTAL IMPACT STATEMENT, Proposal (Process/Technology)
The significance assessment proved a significance rating of medium for all the aforementioned impacts, prior to mitigation:
Table 9 specifically mentions the rating is low for ambient noise levels i.e. AFTER mitigation.
Table 8.11.1 mentions the significant rating is high (25) for excessive noise.
The wording should be changed to reflect this (Please correct me if I misunderstand this?).
6. See attached file [TRICOM Feedback 6 BAR- N.N. Metals MRF]
p.90 paragraph 7 RECOMMENDATION OF PRACTITIONER



All engineering and structural design measures as proposed by the acoustical engineer should be implemented prior to the commencement of operation.

The plant is already operating...

7. See attached file [TRICOM Feedback 7 BAR- N.N. Metals MRF]
Figure 15 Surrounding Business Entity Map
TRICOM Structures incorrectly indicated by no. 8 on photo.
8. See attached file [TRICOM Feedback 8 BAR- N.N. Metals MRF]
Appendix 8: Site Photographs, Site Photo 4
Why must the outlets of the dust extraction facility points towards TRICOM right on our boundary with NN Metals?
What is NN Metals going to do to change this?
9. See attached file [TRICOM Feedback 9 BAR- N.N. Metals MRF]
Appendix E4: Communications to and from persons detailed in Point 2 and 3 above
TRICOM Structures letter dated 29 August 2012:
To date, no resolve has been received for points 1b, 1d or 1e in letter.
10. See attached file [TRICOM Feedback 10 BAR- N.N. Metals MRF]
Table 3-3: Environmental Management/Mitigation measures applicable to the operational phase
Ambient Air Quality
Mitigation measure: The engineering solutions proposed by N.N. Metals should be implemented prior to final commissioning of the recycling plant.
What is the proposed date for implementation?
Ambient Noise Levels
Mitigation measure: Baseline noise measurements shall be conducted/facilitated by an independent specialist
Copy of these reports needed by TRICOM.
11. See attached file [TRICOM Feedback 11 BAR- N.N. Metals MRF]
EMERGENCY PLAN paragraph 9
TRICOM must always be notified upfront of any emergency drill/ exercise.
12. See attached file [TRICOM Feedback 12 BAR- N.N. Metals MRF]
Appendix I (x): EMPr (N.N. Metals) Noise Control - aspect, monitoring mechanism – operational audit:
Reports of operational audits to be copied to TRICOM.
13. See attached file [TRICOM Feedback 13 BAR- N.N. Metals MRF]
Appendix I (xiii): Engineering Solutions proposed by N.N. Metals
What are the hazards and risk attached to the whitish dust? - According to the manufacturer there are no hazards to this product.
This answer is not sufficient and needs further investigation, specifically with regards to inhaling this dust by TRICOM's workers. Proper facts needed about hazards and risks to a person's health when inhaling this dust.
What is the engineering solution to contain/ trap the whitish dust? - No dust is released from the dust extraction filter system
Denying that dust is released from the dust extraction system is not resolving the issue that whitish dust has come from NN Metals at various instances onto our workers and property and is not answering the question or bring solution.
Noise Pollution engineering solutions for generator and granulation plant
When will these actions be implemented?
New noise measurements are needed after mitigation measures have been implemented to prove that actions taken have been successful.

Thank you for the opportunity you gave us to participate in this process. Please do not hesitate to contact me should you require any further information.

Kind regards



LT Odendaal
Group SHERQ Manager
TRICOM Structures South Africa

TRICOM Structures (Pty) Ltd Company Registration Number 2308/020153/07
Directors: UP Topka; MC Niensoudt; SH Shangie; P Meredith; S Naik; MN Smuts



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Email: efzuzeminda@tshwane.gov.za | www.tshwane.gov.za

My ref:	64/R/5	Tel:	0123588667
Your ref:	Gaut: 002/12-13/W0004	Fax:	0123588934
Contact person:	R. Mkhali	Email:	Rutzarikh@tshwane.gov.za
Section/Unit:	Open Space Management	Date:	14 December 2012

Bokamoso Landscape Architects and Environmentants
P.O. Box 11375
Maroelana
0161

Attention: Mr. Neil Brink
Tel: (012) 346 3810
Fax: (086) 570 5659
Email: bjzallea@mweb.co.za

Dear Sir

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED N.N. METALS WALTLOO METAL RECLAMATION FACILITY

The above application date 19 November 2012 refers.

1. INTRODUCTION

The Environmental Management Department (the Department) has considered the Draft Basic Assessment Report dated 19 November 2012 in respect of the abovementioned application. The Basic Assessment Report is submitted to the Environmental Management Division of the City of Tshwane, hereafter referred to as 'the City', as a commenting authority as required in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and the Environmental Impact Assessment Regulations, June 2010.

2. PROJECT LOCATION AND DESCRIPTION

Bokamoso Landscape Architects and environmental Consultants have been appointed as an independent environmental Assessment Practitioner to facilitate the environmental management processes with the proposed N.N Metal Reclamation Facility in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008).

N.N. Metals is a prominent and well-known dealer of ferrous and non-ferrous metals and their metal reclamation facilities. It has a considerable number of scrap metal suppliers, dealers and vendors in the broader Pretoria. N.N. Metals (Pty) Ltd is operating an existing metal reclamation facility in KooBoopont, and it now wishes to relocate the said facility to a property in Waltloo.

The proposed MRF is to be established on the remaining extent of erf 130, Waltloo Township. The property is located within an existing industrial node, and is at currently in a developed and functional state. The site is bounded on the north and east by a wall, and on the south and west by a fence. The site is currently used for storage of scrap metal and is scattered trees along the

western and south eastern boundary of the site. The remainder of the site is currently undeveloped and railway line runs along the northern boundary of the study area. The proposed site is approximately 1, 2328 hectares.

The proposed Metal Reclamation Facility will constitute of the following components:

- Office building;
- Weighbridge(s);
- Eldan Specialised Cable Recycling Plant with dust or fine particle extraction component;
- Diesel Generator;
- Enclosed non-ferrous Metal Reclamation Facility; and
- Bailing Machine.

The activity entails undertaking the following listed activity in terms of the Regulation (GN 718 of 3 July 2009) under the National Environmental Management Act, 1998 (Act No. 107 of 1998): Waste Act 59 of 2008, a Waste Management License is required for the following activities:

- *Activity 1-* The storage, including temporary storage, a general waste at a facility that has the capacity to store in excess of 100m² of general waste at any one time, excluding the storage of waste in lagoons.
- *Activity 5-* The sorting, shredding, grinding or bailing of general waste at a facility that has capacity of process in excess of one ton of general waste per day.
- *Activity 7-* The recycling or re-use of general waste of more than 10 tons per month.
- *Activity 18-* The construction of facilities for activities listed in category A of this Schedule.
- *Activity 19-* the expansion of facilities for or changes to existing facilities for any process or activity, which requires an amendment of an existing permit or licence in terms of legislation governing the release of pollution, effluent or waste.

3. KEY FACTORS INFORMING THE COMMENTS

In making its comments in respect of the proposed activity the Department has taken, *inter alia*, the following into consideration:

- a) The information contained in the Draft Basic Assessment Report compiled by Marsh Environmental Services dated October 2012.
- b) Information obtained from the Departments' s information base including *inter alia*:
 - Geographic Information System (GIS data).
 - Gauteng Open Space Plan (GOSP).
- c) Compliance with applicable Municipal, provincial and national policies and guidelines including:
 - The National Environmental Management Act 1998 (Act 107 of 1998) (NEMA): Its decision-making principles and Environmental Impact Assessment Regulations;
 - The Tshwane Integrated Environmental Policy (TIEP);
 - The City Development Strategy; and
 - The Tshwane Open Space Framework (TOSF) Policy Statements and Typologies.

4. DISCUSSION

In reviewing the application the Department made the following findings:

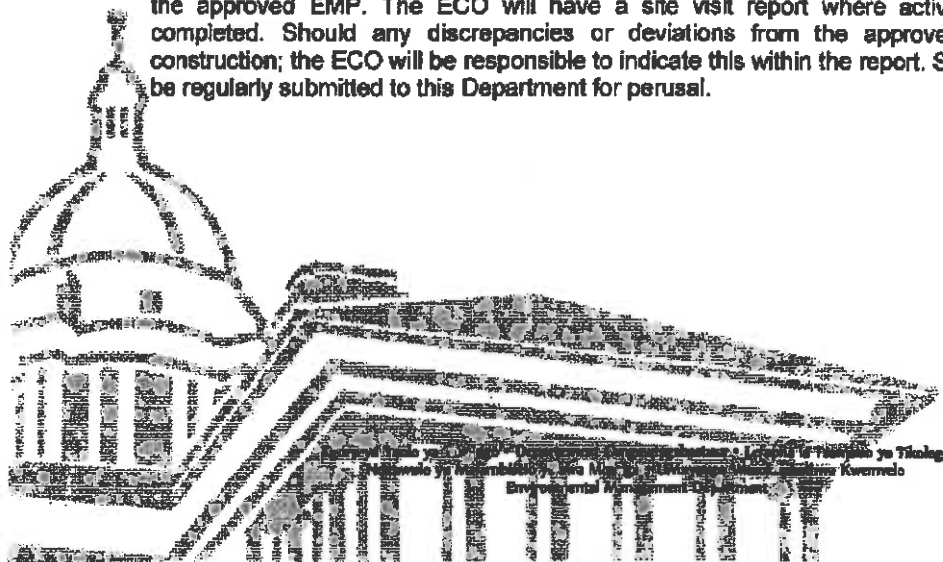
- a) The report indicates that the proposed MRF have the addition of a specialized Elden Recycling plant, which accommodates the separation of non-ferrous metals from insulation material of which includes plastic, rubber and paper.

- b) The report indicates that the recycling plant has a complete dust extraction system, with a single stack discharge; and it was established upon a formal site inspection that no dust is discharged from the single stack.
- c) According to the report the proposed MRF is to be located within an existing industrial node, and thus the permissible dust fall rate in terms of SANS 1929 is 600-1200 mg/m²/day over a 30 day period.
- d) According to the Environmental Noise Assessment Report the acceptable daytime ambient level for Industrial Districts according to SANS 10103 guidelines, is 70 dB A.
- e) The report indicates that the noise level from the shredder and the generator used to power the shredder were individually and collectively found to exceed the 70 dB A limit along the eastern property section.

5. RECOMMENDATIONS

The Department recommends that the following issues be taken into consideration:

- a) A Stormwater Management Plan must be included within the final Basic Assessment Report. The plan should aim to prevent pollution, erosion and siltation during both the construction and operational phases. The increase in speed, quantity and quality of surface stormwater should also be addressed. Surface water control should be directed away from the development into designed storm water flow areas. All stormwater outlets into any wetland or natural water bodies should be indicated on the plan.
- b) All the mitigation measures indicated in the report must be fully respected and adhered to at all times.
- c) The construction and functioning of the activity must comply with the Occupational Health and Safety Standards as set out in the Occupational Health and safety Act no. 85 of 1993 at all times.
- d) The proposed precautionary measures contained in the Noise Assessment report for noise generated from the shredder and the generator must be effectively applied and monitored in order to reach environmentally acceptable noise levels.
- e) The proposed activity must be constructed and functioned according to the final and approved EMP. The approved finalized EMP is the legally binding document. An Environmental Control Officer should be appointed for the proposed construction phase of the development to enforce the approved EMP. The ECO will have a site visit report where activity evaluation will be completed. Should any discrepancies or deviations from the approved EMP arise during construction; the ECO will be responsible to indicate this within the report. Site visit reports should be regularly submitted to this Department for perusal.



6. CONCLUSION

The Department has no objection to the Draft Basic Assessment Report, subject to the consideration of the above recommendations.

Yours faithfully

 14/12/2012

Mr Livhuwani Siphuma Date:
EXECUTIVE DIRECTOR: ENVIRONMENTAL MANAGEMENT DIVISION
Letter signed by: Rudzani Mukheli
Designation: Deputy Director: Open Space Management Section

CC Gauteng Department of Agriculture and Rural Development Attn: Mr Taboho Loku Tel: (011) 355 1394
Fac: (011) 355 1000

Appendix E8:
Comments from I & AP's on
amendments to BA Report

Not Applicable

Appendix 9:

Copy of Register of I & Aps'

Nr	Registered Parties	Contact details	Address
1	Council Geo - Science	gheath@geoscience.org.za	
2	SAHRA	asalomon@sahra.org.za nndobochani@sahra.org.za	
3	PHRAG	maphata.ramphele@gauteng.gov.za	
4	DWA	justicem@dwaf.gov.za keetm@dwaf.gov.za	
5	Eskom	central@eskom.co.za paia@eskom.co.za	
6	Sanral	schmidk@nra.co.za	
7	Gautrans	kumen.govender@gauteng.gov.za	
8	Randwater	customerservice@randwater.co.za	
9	COT	RudzaniM@tshwane.gov.za	
10	Spoornet	daniel.ramokone@transnet.net	
11	DA Councillor Roads	casperm@tshwane.gov.za	
12	Ward Councillor Ingle Singh	inglejnrsingh@gmail.com Cell: 076 354 7690	
13	J.C Mostert Air Quality Offices	JuanM@tshwane.gov.za	
14	Christina Finestone	christina@homez.co.za Tel: 012 803 6021 Fax: 012 803 6818 Fax: 086 263 7124	
15	Theo Odendaal	todendaal@tricom1.co.za 012 803 0041	

Appendix 10:
Comments from I & AP's on
the Application

Not Applicable

Appendix 11:

Other

Proposed Establishment of the N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility

BACKGROUND INFORMATION DOCUMENT (BID)

Prepared for: N.N. Metals (Pty) Ltd

Prepared by: Bokamoso Landscape Architects &
Environmental Consultants

Project Ref No: Gaut-002/12-13/W0004

Date: August 2012

N N Metals (Pty) Ltd



Purpose of the document

The Background Information Document (BID) provides information pertaining to the proposed N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility, which is to be established on the remaining extent of erf 110, Waltloo Township, Registration Division: JR., Gauteng Province and measures approximately 1,2328 hectares in extent. The said property falls on a regional scale within the jurisdiction of City of Tswane (CoT), Gauteng Province (***Please refer to Figure 1-Locality Map and Figure 2-Aerial Map***)

You are subsequently invited in terms of Chapter 6 of the 2010 Environmental Impact Assessment (EIA) Regulations to participate in the application process for Environmental Authorisation (EA), through the submission of issues, concerns and representations which pertain to the proposed Metal Reclamation Facility (MRF). Your participation would ultimately assist in the identification of the potential environmental and social consequences associated with the said MRF. Please kindly submit your name, contact information, and interests in the matter in writing to the entity/contact person given below:

**Bokamoso Landscape Architects &
Environmental Consultants**

Niel Brink

Tel: (012) 346 3810

Fax: 086 570 5659

E-Mail: lizelleg@mweb.co.za

*Please kindly ensure that your contact details and interests in the matter are forwarded to Bokamoso by or on **Monday 26 August 2012.***

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Section 1:	Introduction & Background	4
Section 2:	Overview of the proposed Metal Reclamation Facility	5
Section 3:	Components of proposed Metal Reclamation Facility	7
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Figure 1: Locality Map

Figure 2: Aerial Map

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Table 1: Summary of applicable listed activities

List of Acronyms

BA	Basic Assessment
BAR	Basic Assessment Report
BID	Background Information Document
CoT	City of Tshwane
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
ECA	Environmental Conservation Act
EIA	Environmental Impact Assessment
GDARD	Gauteng Department of Agriculture and Rural Development
GN	Government Notice
I & AP	Interested and Affected Party
MRF	Metal Reclamation Facility
NEMA	National Environmental Management Act
NEMWA	National Environmental Management: Waste Act
WMF	Waste Management Facility

Section 1: Introduction and Background

Bokamoso Landscape Architects & Environmental Consultants have been appointed as an independent environmental consultants/Environmental Assessment Practitioner (EAP) to facilitate the environmental management processes associated with the proposed **N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility** in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), the 2010 Environmental Impact Assessment (EIA) regulations, and the National Environmental Management: Waste Act, 2008 (Act 59 No. of 2008) (NEMWA) (here referred to as 'the Waste Act').

The Waste Act, came into effect on 1 July 2009, and subsequently 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. On 3 July 2009 the Minister of Water and Environmental Affairs published a list of waste management activities, which requires authorisation in terms of the Waste Act prior to commencement. In terms of Government Notice (GN) 718 of the Waste Act, any person who wishes to commence, undertake or conduct a waste management activity, as listed under Category A, must conduct a Basic Assessment (BA) process, as stipulated in the EIA Regulations, made under Section 24(5) of NEMA, 1998 as part of a waste management license application.



N. N. Metals (Pty) Ltd is a prominent and well-known dealer of ferrous and non-ferrous metals and their metal reclamation facilities services a considerable number of scrap metal suppliers, dealers and vendors in the broader Pretoria, Brits and Phalaborwa area. N. N. Metals (Pty) Ltd is operating an existing metal reclamation facility in the in Koedoespoort, Silverton, but it is their intension to relocate the said facility to a property in Waltloo, which is

currently owned by the applicant. *(Please refer to Section 2 for a process overview of the proposed Metal Reclamation Facility)*

Thus, in order to ensure compliance with the Waste Act, an application for a new Waste License was compiled and submitted to approving authority, the Gauteng Department of Agriculture and Rural Development (GDARD) on 04/06/2012.

Section 2: Overview of the proposed Metal Reclamation Facility

The metal reclamation process involves the sourcing of non-ferrous and ferrous scrap metal from various external suppliers and the processing of the said metal to physically recover metals for further use by external entities.

2.1 Input Material

Ferrous and Non-ferrous scrap metal is supplied by a number of external suppliers and vendors, delivered to the operation by truck and/or bakkie loads. (Please note that an external supplier will specifically deliver either non-ferrous metals or ferrous metals, or both, but however separated, thus creating two waste streams). The scrap metal received is visually inspected prior to being weighed, to remove any other waste material that will not be recycled as part of the process. Such materials are designated as unwanted, and are disposed by the service provider and/or vendor which supplied the scrap metal in the first instance. The scrap metal is weighed at a weighbridge (situated at the entrance of the site) or a platform/bench scale for small weight

items not delivered in truck and/or bakkie loads.

2.2 Ferrous scrap metal waste stream:

Ferrous metals are able to be recycled, with steel being the most recycled material in the world. Ferrous metals contain an appreciable percentage of iron and the addition of carbon and other substances creates steel. The most commonly recycled items are containers, cans, structural steel, parts of motor vehicles, household appliances etc. Ferrous metals are once weighed, graded and sorted into (a) steel, (b) sub-grade material and (c) cast iron and routed to different stockpiles at the facility. Please note that in many instances an external supplier may deliver ferrous scrap metals as steel, or sub-grade material or cast iron prior to being weighed. The stockpiles of steel and sub-grade material are in addition visually inspected to separate and remove any (1) non-ferrous metals or (2) other waste material which remained behind in the graded stockpiles.

(a) Ferrous scrap metal waste stream: Steel Material

Once separated from the sub-grade material, the dimensions and sizes of the steel are reduced with the use of a cutting torch and/or cropper. The steel material is essentially reduced to enable the enhanced handling, loading and transportation thereof. The steel once reduced, are stockpiled as recycled material, collected by trucks and transported to clients.

(b) Ferrous scrap metal waste stream: Sub-grade material

The sub-grade material is either directly collected from the stockpiles by trucks or reduced through the use of a bailing machine.

(c) Ferrous scrap metal waste stream: Cast Iron

The cast iron is directly collected from the stockpiles by trucks and transported to clients.

2.3 Non-ferrous scrap metal waste stream:

A non-ferrous metal is any metal, including alloys, that does not contain iron in appreciable amounts. Non-ferrous metals

are generally more expensive due to its desirable properties such as low weight, higher conductivity, non-magnetic property, or resistance to corrosion. Some important non-ferrous metals include aluminium, copper and the alloy brass, lead, nickel, tin and titanium.

Non-ferrous metals are supplied by external suppliers and vendors. Non-ferrous metals, once weighed are visually sorted, and graded (in different classes) at an enclosed Waste Management Facility (WMF). The non-ferrous scrap metal is as with the ferrous metal waste stream visually inspected to remove other waste material that will not be recycled in the process. Such materials are temporary stored on site at a designated waste storage area and/or facility until disposed of by a service provider.

The proposed Waltloo facility will have the addition of a specialised *Eldan Cable Recycling Plant*, which would essentially separate non-ferrous metals from non-metallic materials. The specialised process is specifically designed to accommodate the recovery of non-ferrous metals which forms a component of used cables. The said input material is predominantly sourced from the electrical services and telecommunication industries.

The non-ferrous metals are once sorted and recovered temporarily stored at the enclosed WMF until collected by trucks and transported to clients.

Section 3: Components of the proposed Metal Reclamation Facility:

The proposed metal reclamation facility would include the following components:

- Office buildings;
- Weighbridge(s);
- *Eldan Cable Recycling Plant* with dust extraction component(s);
- Generator;
- Enclosed non-ferrous Metal Reclamation Facility; and
- Bailing machine(s)

Section 4: Application process in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEMWA)

As mentioned before, the Waste Act came into effect on 1 July 2009 and repealed Section 20 of the ECA, 1989 and is thus considered as the lead environmental statutes which regulate authorisations for waste management activities. The Minister of Water and Environmental Affairs subsequently published a list¹ of waste management activities on 3 July 2009 that have or are likely to have a detrimental effect on the environment which requires authorisation in terms of the Waste Act prior to commencement.

In terms of the Waste Act, the term **waste** is defined and referred to as: ***any substance, whether or not that substance can be reduced, re-used, recycled and recovered-***

-that is surplus, unwanted, rejected, discarded, abandoned, or disposed of;

-which the generator has no further use of for the purpose of production;

-that must be treated or disposed of; or

- that is identified as a waste by the Minister by notice in the Gazette

It should be noted that in terms of the Waste Act, the material(s) received by the proposed facility, is regarded as waste, and that the proposed waste management activities which are associated with the metal reclamation facility are furthermore subsequently listed in terms of Category A of GN 718 of 2009, which require formal authorisation prior to commencement.

Please refer to Table 1 for a summary of the relevant legislation and the listed activities.

¹ Government Notice 718 of 2009

Table 1: Summary of applicable listed activities

INDICATE THE NO. & DATE OF THE RELEVANT NOTICE:	CATEGORY A OR B (AS LISTED IN NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT)	ACTIVITY NUMBERS (AS LISTED IN EITHER CATEGORY A OR B OF NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT)	DESCRIBE EACH LISTED ACTIVITY:	COMPONENT OF DEVELOPMENT
GN 718 of 3 July 2009	Category A	Activity 1	The storage, including the temporary storage of general waste at a facility that has the capacity to store in excess of 100m ² of general waste at any one time, excluding the storage of waste in lagoons.	The proposed metal reclamation facility entails the temporary storage ² of waste in excess of 100m ² .
GN 718 of 3 July 2009	Category A	Activity 5	The sorting, shredding, grinding or bailing of general waste at a facility that has the capacity to process in excess of one ton of general waste per day.	The proposed activity entails the sorting, shredding and bailing of general waste in excess of one ton per day.
GN 718 of 3 July 2009	Category A	Activity 7	The recycling or re-use of general waste of more than 10 tons per month	The proposed metal reclamation facility entails the recycling of general waste of more than 10 tons per month.
GN 718 of 3 July 2009	Category A	Activity 18	The construction of facilities for activities listed in Category A of this Schedule.	The proposed metal reclamation facility entails the construction of waste management facilities for the management said waste.
GN 718 of 3 July 2009	Category A	Activity 19	The expansion of facilities for or changes to existing facilities for any process or activity, which requires an amendment of an existing permit or license or a new permit or license in terms of legislation governing the release of pollution, effluent or waste.	The proposed metal reclamation facility entails the expansion of existing facilities on site, which are associated with the management of waste on site.

² Note: Temporary storage of waste means the continues storage of waste, excluding a once-off storage of waste for a period not exceeding 90 days.

It should be noted that any person who wishes to commence, undertake or conduct a waste management activity, as listed in Category A, must conduct a BA process in terms of the 2010 EIA Regulations made under section 24(5) of the National Environmental Management Act, 1998 as part of a waste management license application. Bokamoso is at present facilitating the compilation of the Draft Basic Assessment Report (BAR) in terms of the regulations for the proposed MRF. The BAR is considered as a mini EIA, and is essentially geared to provide for a description of bio-physical and socio-economical environment, and the manner in which the said environment may be affected by the proposed activity. The BAR would furthermore include a description and assessment of the significance of any environmental impacts which is to be associated with the proposed activity. The EAP would amongst others include a reasoned opinion whether the activity should or not be authorised, and if authorised any conditions made in respect of the authorisation.

All registered I & APs and other identified stakeholders will be afforded an opportunity to comment on the Draft BAR, which will be made available for a period of 60 days in terms of Regulation 56(8) of the EIA Regulations. All comments received from I & APs and stakeholders will be included and addressed in the Final BAR which will be submitted to the approving authority-GDARD for consideration.

Assessment of potential environmental impacts:

The EAP managing the application for a waste license application is obligated to describe and assess the significance of environmental impacts associated with the development proposal. *The most significant environmental impacts which may emanate from the proposed MRF include:*

➤ **Bio-physical Environment:**

- Surface water pollution and contamination;
- Sub-surface water pollution and contamination; and
- Air pollution

➤ **Social and Economical Environment:**

- Noise pollution;
- Visual pollution;
- Safety and Security;
- Impacts on property values; and
- Traffic Impacts;

**Appendix F: Water use
license(s), SAHRA information,
service letters from
municipalities, water supply
information**

**Appendix F (i):
Letter from the Waste
Group- General Waste
Management and
Disposal Services**

PRETORIA HEAD OFFICE
Plot 36, Old Wembabys Road
Pretoria, South Africa
P.O Box 314, Ben Accord, 0009
Tel: 012 562 0339
Fax: 012 562 0338
Email: admin@wastegroup.co.za

JOHANNESBURG
Mooiisats Landfill Site
Tel: 08612 WASTE (92789)
Fax: 08613 WASTE (92789)
Email: admin@wastegroup.co.za

NORTH WEST
Tel: 08612 WASTE (92789)
Fax: 08613 WASTE (92789)
Email: admin@wastegroup.co.za

MARGATE
Dandara Landfill Site
Dandara Margate
KwaZulu Natal, South Africa
Tel: 039 357 3436
Fax: 039 317 1801
Email: margate@wastegroup.co.za

DURBAN
308 North Coast Road
Springwood Park, Durban
KwaZulu Natal, South Africa
Tel: 08612 WASTE (92789)
Fax: 08613 WASTE (92789)
Email: durban@wastegroup.co.za

EMPHANGENI
1742 Ngwenyane Road
Unit 1 & King Fisher Park,
Empangeni
KwaZulu Natal, South Africa
Tel: 035 794 1421
Fax: 035 794 1622
Email: empangeni@wastegroup.co.za

VAAL
2 Jackie Krige Street
Unitas Park 841,
Meyerton
Tel: 016 429 5126/4977
Fax: 016 429 5315
Email: vaal@wastegroup.co.za

VETBANK
Tel: 08612 WASTE (92789)
Fax: 08613 WASTE (92789)
Email: vetsbank@wastegroup.co.za

WELKOM (FREE STATE)
Tel: 057 323 9045
Fax: 08613 WASTE (92789)
Email: welkom@wastegroup.co.za

Web Site
www.wastegroup.co.za

NN Metals
PO Box 139
La Montagne
0184
Email: louwrens@nnmetals.co.za

10 August 2012

Att: Louwrens Du Preez

Re: Waste Removal Services

Dear Louwrens,

With reference to the above, we would like to confirm the following:

We are currently rendering the Waste Removal Services to NN Metals at the following address:

300 Mundt Street
Waltloo
Pretoria

The following waste types are removed by us on a on a weekly basis:

- General Compactable Waste
(1 x 6m³ REL, serviced 1 x per week)

The general waste is disposed of at our own permitted landfill facility, namely Bon Accord, which is a GLB- landfill facility.

Do not hesitate to contact us should you require any further information.

Trusting you find the above in order.

Kind regards,

Suzette Oosthuizen
For: The Waste Group (Pty) Ltd

**Appendix F (ii):
Letter from Environserv:
Hazardous Waste
Management and
Disposal Services**



Attention : Mr Louwrens Du Preez
Date : 30 October 2012
Regarding : EnviroServ as hazardous waste service provider for NN Metals

Dear Louwrens

This letter serves to confirm that EnviroServ Waste Management (Pty) Ltd is the service provider for transport, disposal and chemical treatment of hazardous waste generated by NN Metals. There is no formal contract or service level agreement in place at this stage, as work is done on an ad-hoc basis.

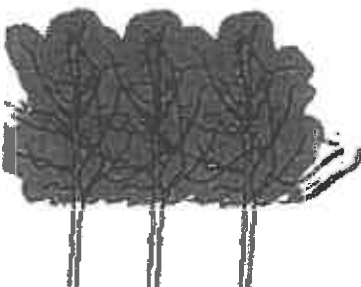
Currently we provide service for fluorescent tubes and drums containing hydrocarbons. Due to the nature of our business, we as EnviroServ conduct a screening analysis on hazardous waste streams prior to it being disposed off at Holfontein H:H landfill site. A safe disposal certificate is provided to NN Metals for all hazardous waste that we are requested to dispose off. Our portfolio of waste streams being disposed off for NN Metals is constantly growing as and when the client informs us of any new waste streams.

EnviroServ Waste Management (Pty) Ltd looks forward to a long and fruitful business relationship with NN Metals.

Thank You

Kind regards

Dain Doorsamy
Sales Consultant
Tel: 012 541 1210
Cell: 082 773 3927
E-mail: daind@enviroserv.co.za



1+27 (011) 456 540
F+27 (011) 453 798
Customer Care Line: 0800 192 78
clientservices@enviroserv.co.za
Office
No. 3 Brickfield Road, Meadowdale, Germiston, 1401, PO Box 2207, Bedfordview, 200
Registered Address
EnviroServ Waste Management (Pty) Ltd, Brickfield Road, Meadowdale, Germiston, PO Box 1547, Bedfordview, 200
1+27 (011) 456 566
F+27 (011) 454 601
www.enviroserv.co.za
Director:
A. McLean (Beit) (Chairman), D.K. Gordon (CEO), C.I.A. Coppings, P. Fourie, K.M. Goolaguan, E. Gornisault, S. Joell, D.F.N. Krige, I. Laverdas, R.P. Roether, J.J. De Oover, O. Delfosse (ACIS/CA/BA) (Company Secretary)
Reg No 3000/0211521/0

**Appendix F (iii):
Account from City of
Tshwane, Services-
Electricity, Water and
Sanitation**



Tel: 012 358 9999
 Fax: 012 358 8111
 E-Mail: customerscare@tshwane.gov.za
 Address: P O Box 408 | Pretoria | 0001

N N METALS (PTY) LTD
PO BOX 139
LA MONTAGNE
0183

Account No.

5008215667

TAX invoice: 175002506372
 Issued: 23/07/12

19960024920 / 4750156160

Page 1 of 3

Account for	P14	Stand no	00110	Township	WALTLOO	Days	33
Address	300 MUNDT STREET			Sectional title scheme		Unit no	00000
Meter reading unit	14HC07A	Group account		Deposit date	15/11/11	Deposit	13670.00
Guarantee date		Guarantee					0.00
GISKEY:	071200110/R			BP:	1266802		
DETAILS				(R) Amount (exc. VAT)	(R) VAT	(R) Total (incl. VAT)	
20/06/12	Balance Brought Forward			22,166.02	0.00	22,166.02	
23/07/12	Sub Total (A)			22,166.02	0.00	22,166.02	
23/07/12	Electricity			17,128.13	2,397.94	19,526.07	
23/07/12	Water			1,178.23	164.86	1,343.19	
23/07/12	Sanitation			275.09	38.52	313.61	
	VAT 14% on services of R 18581.45			0.00	2,801.40	0.00	
23/07/12	Total Current Levy (B)			18,681.45	2,801.40	21,182.85	
<i>side</i>							
TOTAL AMOUNT PAYABLE (A+B)				40,747.47	2,801.40	43,348.00	

90 Days	90+ Days	Total charge (excluding VAT)	Total VAT	Total charge (including VAT)
9,787.58	0.00	40,747.47	2,801.40	43,348.00
	DUE DATE	13/08/12	AMOUNT PAYABLE	43,348.00

THIS STUB MUST ACCOMPANY PAYMENT

Name	Final date for payment	Account no	Amount
N N METALS (PTY) LTD	13/08/12	5008215667	Due 43,348.00

Please use this Ref. no. when making Bank Payments

Ref. no. 5008215667

TAX invoice: 175002506372

CITY OF TSHWANE VAT REG NO 4088142287



50082156670



>>>>> 0 1945 5008215667 0



Standard Bank



ABSA

NEDBANK

012 358 9999

012 358 8111


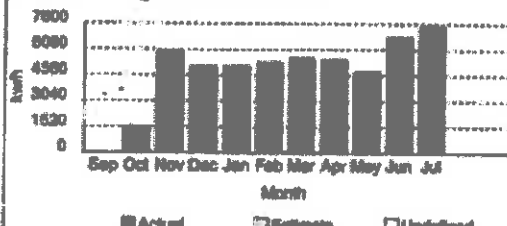

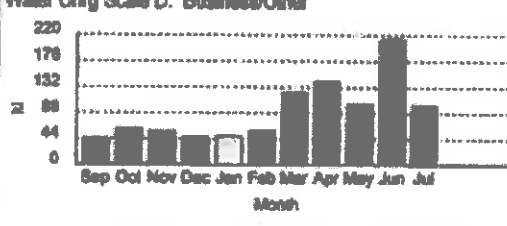

customerscare@tshwane.gov.za

P O Box 408 • Pretoria | 0001

741-AFD01742

Account No.

8008218887

DATE	ICONS	DETAILS	(R) AMOUNT (excl. VAT)	(R) VAT	(R) AMOUNT (incl. VAT)
20/06/12		Balance Brought Forward	22,186.02	0.00	22,186.02
20/06/12		Sub Total (A)	22,186.02	0.00	22,186.02
23/07/12		<p>Electricity</p> <p>Reading dates: Curr 30/06/12 Prev 17/06/12 (14 days) Reading dates: Curr 19/07/12 Prev 17/06/12 (33 days) Meter: 96119771(Estimate) Curr 55728 Prev 54467 Cons 1261 KWH Meter: 96119771(Estimate) Curr 30976 Prev 29863 Cons 1013 KWH Meter: 96119771(Estimate) Curr 31077 Prev 30166 Cons 911 KWH Meter: 96119771(Actual) Curr 60 Prev 0-Cons 60-KVA 348: Energy Charge LV Demand Scale Reading dates: Curr 19/07/12 Prev 01/07/12 (19 days) Meter: 96119771(Actual) Curr 57441 Prev 55728 Cons 1712 KWH Meter: 96119771(Actual) Curr 32362 Prev 30876 Cons 1375 KWH Meter: 96119771(Actual) Curr 32314 Prev 31077 Cons 1236 KWH 341: Fixed Charge Low Volt Dem Scale 348: Energy Charge LV Demand Scale 346: Dem. Charge Low Volt Dem Scale</p> 	1,299.77	181.97	1,481.74
			1,382.00	183.48	1,575.48
			2,046.36	286.49	2,332.85
			12,400.00	1,736.00	14,136.00
23/07/12		<p>Water</p> <p>Reading dates: Curr 30/06/12 Prev 17/06/12 (14 days) Meter: 80015082(Estimate) Curr 1491 Prev 1489 Cons 2 KL Meter: 68318530(Estimate) Curr 4253 Prev 4212 Cons 41 KL TOTAL CONSUMPTION 43 KL Water Chrg Scale D: Business/Other</p> <p>Reading dates: Curr 19/07/12 Prev 01/07/12 (19 days) Meter: 68318530(Actual) Curr 4309 Prev 4253 Cons 56 KL Meter: 80015082(Actual) Curr 1495 Prev 1491 Cons 4 KL TOTAL CONSUMPTION 60 KL Water Chrg Scale D: Business/Other</p> 	464.83	65.08	529.91
			713.40	99.88	813.28
23/07/12		<p>Sanitation</p> <p>Reading dates: Curr 30/06/12 Prev 17/06/12 (14 days) Meter: 80015082(Estimate) Curr 1491 Prev 1489 Cons 2 KL Meter: 68318530(Estimate) Curr 4253 Prev 4212 Cons 41 KL TOTAL CONSUMPTION 43 KL Sanitation: Without Industrial Effluent</p>	187.33	15.69	203.02

Appendix F (iv): Letter from SAHRA



Letter

In terms of section 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Bokamoso Environmental Consultants

Waltloo Metals Reclamation Facility

Decision:

Thank you for your Background Information Document regarding the above development.

In terms of the National Heritage Resources Act, no 25 of 1999, heritage resources, including archaeological or palaeontological sites over 100 years old, graves older than 60 years, structures older than 60 years are protected. They may not be disturbed without a permit from the relevant heritage resources authority. This means that before such sites are disturbed by development it is incumbent on the developer to ensure that a **Heritage Impact Assessment** is done. This must include the archaeological component (Phase 1) and any other applicable heritage components. Appropriate (Phase 2) mitigation, which involves recording, sampling and dating sites that are to be destroyed, must be done as required.

The quickest process to follow for the archaeological component is to contract an accredited specialist (see the web site of the Association of Southern African Professional Archaeologists www.asapa.org.za) to provide a Phase 1 Archaeological Impact Assessment Report. This must be done before any large development takes place.

The Phase 1 Impact Assessment Report will identify the archaeological sites and assess their significance. It should also make recommendations (as indicated in section 38) about the process to be followed. For example, there may need to be a mitigation phase (Phase 2) where the specialist will collect or excavate material and date the site. At the end of the process the heritage authority may give permission for destruction of the sites.

Where bedrock is to be affected, or where there are coastal sediments, or marine or river terraces and in potentially fossiliferous superficial deposits, a Palaeontological Desk Top study must be undertaken to assess whether or not the development will impact upon palaeontological resources - or at least a letter of exemption from a Palaeontologist is needed to indicate that this is unnecessary. If the area is deemed sensitive, a full Phase 1 Palaeontological Impact Assessment will be required and if necessary a Phase 2 rescue operation might be necessary.

If the property is very small or disturbed and there is no significant site the heritage specialist may choose to send a letter to the heritage authority to indicate that there is no necessity for any further assessment.





Enquiries: Andrew Salomon
Tel: 021 462 4502
Email: asalomon@sehra.org.za
CaseID: 375

Date: Thursday August 16, 2012
Page No: 2

Any other heritage resources that may be impacted such as built structures over 60 years old, sites of cultural significance associated with oral histories, burial grounds and graves, graves of victims of conflict, and cultural landscapes or viewsapes must also be assessed.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Andrew Salomon
Heritage Officer: Archaeology
South African Heritage Resources Agency

Colette Scheermeyer
SAHRA Head Archaeologist
South African Heritage Resources Agency

ADMIN:

Terms & Conditions:

1. This approval does not exonerate the applicant from obtaining local authority approval or any other necessary approval for proposed work.
2. If any heritage resources, including graves or human remains, are encountered they must be reported to SAHRA immediately.
3. SAHRA reserves the right to request additional information as required.



The South African Heritage Resources Agency

Street Address: 11 Harrington Street, Cape Town 8001 / Postal Address: PO Box 4637, Cape Town 8000
Tel: +27 21 462 4502 / Fax: +27 21 462 4500 / Web: <http://www.sahra.org.za>

**Appendix G:
Specialist Report(s):**

Environmental Noise Impact Assessment

Ben van Zyl MSc (Eng) PhD



P O Box 70596
Die Wilgers
0041

Tel: 012 807 4924
Fax: 086 508 1122
ben@acusolvo.co.za

	Report G1001-R1
NN Metals Metal Reclamation Facility	
Relocation from Koedoespoort to Waltloo	
Assessment for compliance with City of Tshwane noise regulations	
For: NN Metals (Pty) Ltd	Issued: 10-Sep-2012

Conditional design approval

NN Metals (Pty) Ltd is operating an existing metal reclamation facility in Koedoespoort, Silverton. It is their intension to relocate their existing facility to a property in Waltloo.

It is hereby confirmed that noise levels of machines and work activities at the proposed new location should be within acceptable limits on condition that the design measures outlined in Section 3 of this report be implemented.

Ben van Zyl MSc (Eng) PhD
Acoustical Engineer

1 Project description

NN Metals (Pty) Ltd is a dealer of ferrous and non-ferrous metals. Their metal reclamation facilities service scrap metal suppliers, dealers and vendors in the broader Pretoria, Brits and Phalaborwa area. NN Metals (Pty) Ltd is operating an existing Metal Reclamation Facility (MRF) in the in Koedoespoort, Silverton, but it is their intention to relocate the facility to 300 Mundt Street in Waltloo, on a property currently owned by the applicant. The existing and proposed new sites are shown on the maps in Figure 1.1.



Figure 1.1

NN Metals existing site and proposed new site

NOISE ASSESSMENT

In terms of Government Notice 718 of the Waste Act, any person who wishes to commence, undertake or conduct a waste management activity, must conduct a Basic Assessment (BA) process, as stipulated in the EIA Regulations, made under Section 24(5) of NEMA, 1998 as part of a waste management license application.

Bokamoso Landscape Architects & Environmental Consultants have been appointed as independent environmental consultants and as Environmental Assessment Practitioner (EAP) to facilitate the environmental management processes associated with the proposed NN Metals (Pty) Ltd Waltloo Metal Reclamation Facility. Acusolv has been appointed to undertake a noise impact assessment required as part of the process.

The MRF involves the sourcing of non-ferrous and ferrous scrap metal from various external suppliers and the processing of the material to physically recover metals for further use by external entities. Noise generating activities which will be transferred from the existing Koedoespoort site to the new Waltloo site include the following:

- Cranes (for the loading/unloading of scrap metal)
- Eldan Cable Recycling Plant with dust extraction components
- Enclosed non-ferrous Metal Reclamation Facility
- The use of cutting torches
- The use of grinders
- The use of trucks on site
- A bailing machine for waste materials

In addition, a new shredder (granulator) and generator set driven by a diesel engine will be installed at the new site.

2 Noise impact assessment

2.1 Methodology

Site inspection and noise tests

As part of the noise assessment, the following site evaluations and noise tests were conducted:

- Inspections were conducted on 13-Aug-2012 to assess the nature of current operations at the existing Koedoespoort site as well as the location of the proposed new site and the acoustical nature and noise sensitivity of the immediate surroundings in Waltloo.
- Noise tests were conducted over a period of 2 hours at the Koedoespoort site to determine characteristic noise levels of normal work activities produced at the nearest property boundaries.

NOISE ASSESSMENT

- Noise tests were also conducted at the Waltloo site to probe existing ambient noise levels in the area and to obtain noise data for the new shredder which had already been installed and undergoing commissioning tests.

Assessment

Information obtained in the site evaluations and noise tests were used to estimate noise levels expected at the site boundaries of the new facility, as well as noise reduction and mitigation requirements.

2.2 Findings

2.2.1 State of the environment in Waltloo

The Waltloo premises under consideration are located in an industrial area, surrounded by similar industrial premises. Buffered by the surrounding industrial buildings, there is no direct line-of-sight between the NN Metals premises and the nearest residential boundaries approximately 600 m away. Potential receptors of noise emanating from the NN Metals site are limited to industrial premises, those immediately adjacent to and bordering on the NN Metals site. The area in accordance with SANS 10103 criteria is rated as an Industrial District.

Since activities will be restricted to daytime hours, night-time limits are not applicable in the assessment of NN Metals noise impact. The acceptable daytime ambient level for Industrial Districts according to SANS 10103 guidelines, is 70 dBA.

2.2.2 Expected noise levels on NN Metals premises

Existing activities to be relocated to Waltloo

Based on measurements conducted over a period of 2 hours during the normal course of operations on the existing Koedoespoort premises, noise levels at the boundaries of the new Waltloo premises are expected to vary between 59 and 67 dBA, with a typical level of 65 dBA. It is therefore expected that the impact of general work activities transferred from the Koedoespoort site to the Waltloo site will be negligible.

Additional sources of noise on the Waltloo premises

The addition of the shredder will create new sources of noise on the Waltloo premises: firstly the operation of the shredder itself and secondly, the generator set which was used to power the shredder at the time of the investigation. Noise from these two sources, individually and collectively, were found to exceed the 70 dBA limit along a section of the eastern property boundary by a considerable margin.

NOISE ASSESSMENT

Table 2.1 summarises the noise levels expected from the main sources of noise along sections of the Waltloo property boundaries. In the case of general processing activities the levels are derived from measurements conducted at the Koedoespoort plant. The shredder and generator levels are actual levels measured with the machines running on the Waltloo premises.

Table 2.1

NN Metals Waltloo Plant noise
Unmitigated noise levels expected at the nearest boundary

Source of Noise	Noise level at boundary dBA	Excess dB
General plant operation	65	-
Shredder	81	+ 11
Power generator for shredder	94	+ 24

 NOISE ASSESSMENT

3 Noise mitigation requirements

It follows from the summary of noise source levels in Table 2.1 that mitigation is required in respect of the shredder and the power generator only.

3.1 Existing layout of shredder and power plant

The shredder is currently located under a steel roof cover in a workshop with a brick wall built up to about 3 m high on the eastern side and a 3 m high steel wall cladding on the northern side. These two walls provide some visual screening of the shredder, but because the area between the walls and the steel roof are open and because of the reflective steel roof above, it is of little use to screen off noise towards the eastern boundary. The generator is located outside. The location of the shredder and the generator with unmitigated noise levels are illustrated in Figure 3.1.

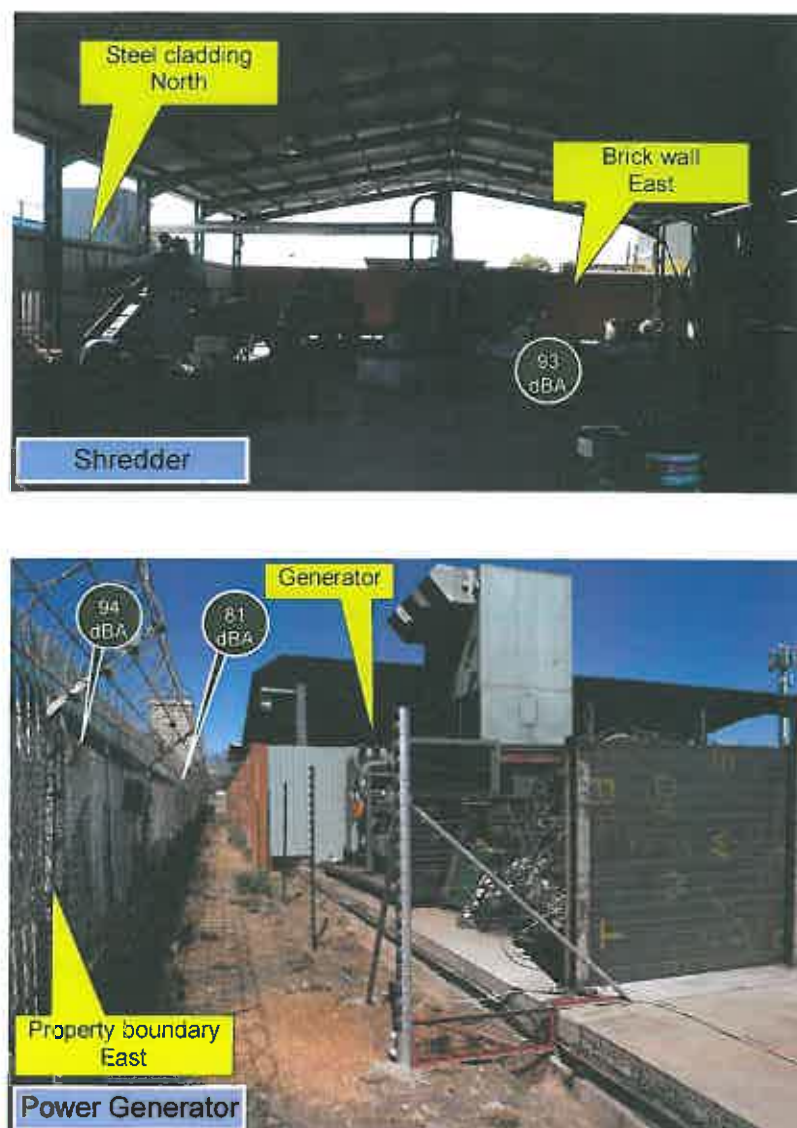


Figure 3.1

NN Metals shredder plant and power generator at Waltloo site

As a minimum, the following measures should be implemented:

A Exhaust silencer

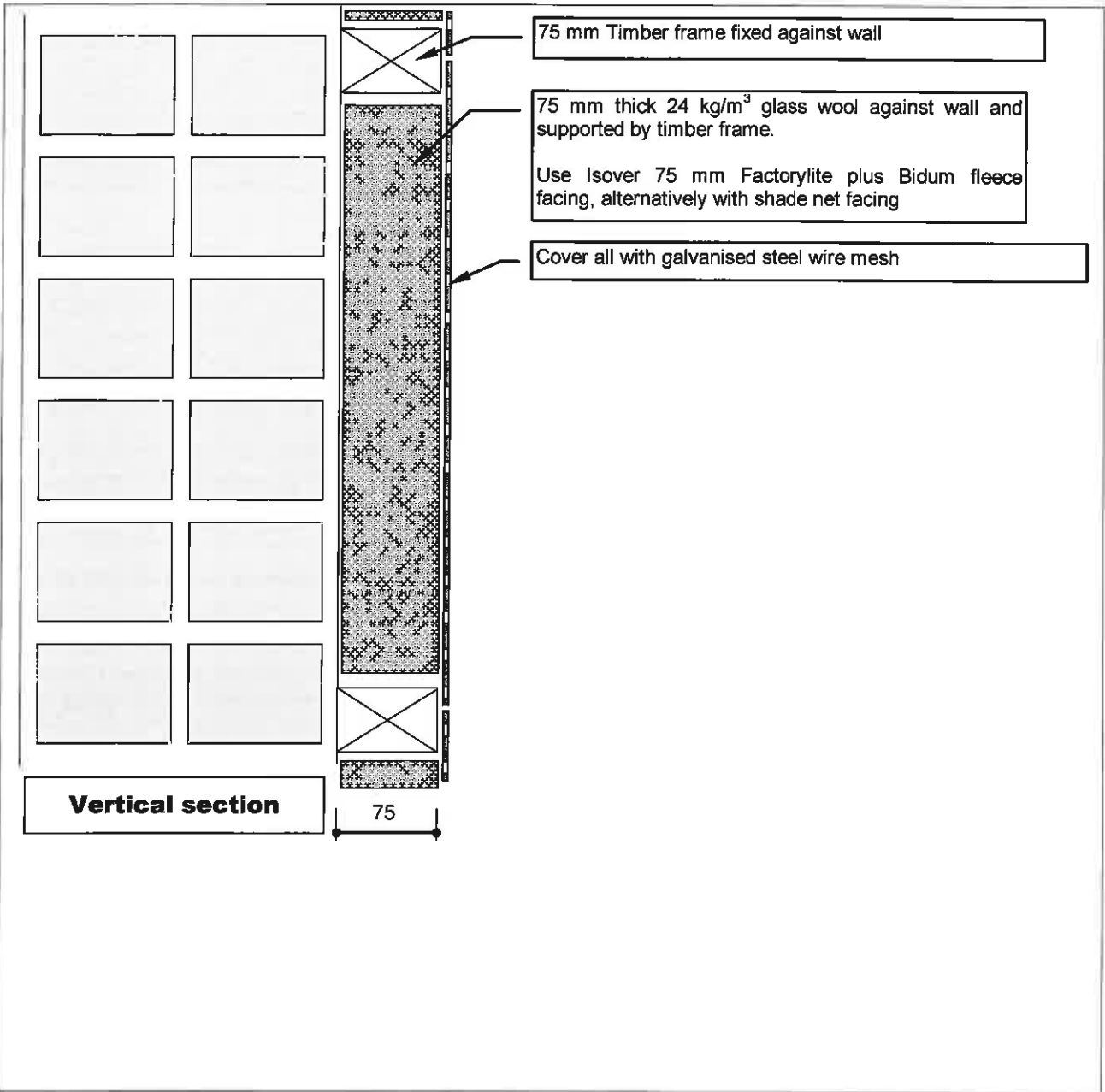
Fit a standard manufacturer-approved silencer to the engine exhaust.

B Plant room as noise enclosure

- It is recommended that a plant room be constructed to serve as a noise enclosure for the generator set.
- Although not required to be built as a proper sound-proof enclosure, plant room walls must be constructed of solid brick.
- A standard steel roof can be used but it must be treated on the underside with 75 mm thick Isover Factorylite, as specified for the shredder workshop (Section 3.2).
- Treat two mutually perpendicular walls (i.e. two non-parallel walls) internally with 75 mm thick Factorylite supported within a suitably spaced timber framework fixed to the walls. Cover with Bidum fleece facing, or alternatively with shade net facing, followed by a steel wire mesh for physical protection of the glass wool (See Schedule ACU_W1).
- To obviate the need for expensive acoustical doors, locate the double door entrance to the generator plant room on the eastern side (i.e. facing away from the nearby eastern boundary).

Acoustic Treatment Specification

Wall Treatment	ACU_W1	Sound absorbent wall treatment
----------------	--------	--------------------------------



4 Test Equipment

Noise level measurements

Field measurements were carried out using the following equipment:

- (a) Brüel & Kjaer Type 2260 Modular Precision Sound Analyser (Ser no. 1875497)
- (b) Brüel & Kjaer Type 4231 Sound Calibrator (Ser no. 2606011)

Equipment conformed to IEC 61672-1 Electro-Acoustics – Sound Level Meters – Part 1: Specifications.

Calibration:

- M& N Calibration Services Certificates No's 2010-1164 & 2010-1165
- National Metrology Institute of SA Certificate No AV/AS-4016-R
- National Metrology Institute of SA Certificate No AV/AS-4021-R



Ben van Zyl MSc (Eng) PhD
Acoustical Engineer

Stormwater Management Plan

Tel: 072 060 9000
Fax: 086 622 7957
Email: miconsulting@vodamail.co.za

Matla Jara Consulting cc ta 2005/104250/23

MJ Consulting



02 July 2013

NN Metals (Pty) Ltd

Waltloo

Erf R/110

BY MAIL

Email: louwrens@nnmetals.co.za

Dear Sir

Attention: Louwrens Du Preez

A Stormwater Masterplan has been compiled as described below.

The topography of the surrounding area is such that no stormwater will enter the site from the road or adjacent properties, as that Mundt Street do have adequate road storm water system in place. Stormwater will therefore be generated on the site only as follows:

- Stormwater Zone 1, as shown on the attached drawing No. 0702/SW/01, consists of the portion of the site to the west of the watershed which will be serviced by the informal stormwater system located on the western boundary. Existing surface channeling are in place with silt chamber.
- Stormwater Zone 2, as shown on the attached drawing No. 0702/SW/01, consists of the portion of the site to the east of the watershed which will be serviced by the informal stormwater system located on the Eastern boundary. Existing surface channeling are in place with silt chamber.

The stormwater flows were calculated in accordance with the method set out in the Design Manual Part 2 – Guidelines for the Design of Storm water Drainage Systems –2000". As specified in the Manual, the 1:10 year storm event was used for the overall system, on the assumption that the discharges represent critical points. The results of the pre and post development flows are set out in the table below.

MJC

35 Voortrekker Str, Edenvale, 1609
PO Box 2013, Edenvale, 1610
Member: J van den Berg PR Tech Eng



In addition to the flows, the attenuation volumes required were calculated using the approximated histograms, and a 20% safety factor was applied to account for inaccuracies in the calculation method.

Zone	Pre-Development Flow m^3/s	Post-Development Flow m^3/s	Attenuation Volume m^3
1	0,54	0,63	9
2	0,39	0,42	3

Although the volumes are relatively small, due to the small drainage areas and the flat topography, it is clear from the small increase in flows that the development will have no major impact, and therefore on site attenuation will not be required.

The attenuation volumes required, however, are also small, and the appropriate attenuation structures can easily be accommodated at the locations shown on the layout.

The stormwater system proposed must meet the following criteria:

- The stormwater system must be designed in accordance with the "Guidelines for Human Settlement Planning and Design" - the "Red Book", and constructed to the standards specified in SANS 1200;
- The industrial buildings must include oil and grease traps where required, and the design must ensure that any areas of potential stormwater contamination are contained and pollutants dealt with as appropriate;
- At the points where the stormwater is discharged into the open areas, a termination structure must be constructed. This structure must be designed to prevent erosion, and must also remove flotsam and pollution from the stormwater;

The following guidelines must, in addition, be adhered to for stormwater design on the properties:

- Existing formal surface stormwater system are provided for stormwater drainage from private properties;
- Where no gutters are provided, stone pitching, packed rock, or other suitable



paving should be provided to cushion the impact of discharges from roof to ground, provide a means of energy dissipation and induce the runoff to infiltrate the ground away from the foundations;

- Where gutters are provided, down-pipes must be connected to infiltration galleries or trenches, which are designed to contain runoff without overtopping within the first hour of a minor storm;
- Infiltration trenches must be aligned along the contour on the downstream side of the property such that any spillage during major storms resulting in sheet overland flow;
- Driveways shall not be constructed to deflect or channel runoff onto a roadway, or to concentrate runoff along a particular path that is not a natural watercourse,
- Driveways and paths should be designed and constructed such that the rate of flow of stormwater across and along the driveway or path is not increased when compared with the pre-development state;
- Any building will inevitably result in some degree of flow concentration, or deflection of flow around the building. The owner must ensure that the flow path of the stormwater is adequately protected against erosion and is sufficiently roughened to retard the flow by degree not less than the degree of flow concentration or deflection;
- Where the construction of a building causes a change in the natural flora of the site that might result in soil erosion, the risk of soil erosion by stormwater must be eliminated by the provision of approved artificial soil stabilization devices, or alternative flora suited to the changed conditions on the site;
- Any parking area, yard or other paved area must be designed to attenuate stormwater runoff from a minor storm, and must discharge rainwater flowing over, or falling onto its surface, in a controlled manner either overland as sheet flow, or into a detention facility, or infiltration gallery sized to accommodate minor storm runoff;



- The sufficiency and effectiveness of on-site detention and retention storage to meet stormwater attenuation requirements within the minor and major stormwater systems must be the responsibility of the property owner;
- Any construction providing for the subsurface disposal of stormwater should be designed to ensure that such disposal does not cause slope instability or areas of concentrated saturation or inundation.

We trust that this meets your requirements- please contact the writer should you have any queries.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Johan van den Berg', written over a horizontal line.

Johan van den Berg *Pr Tech Eng*



Existing surface channeling with attenuation structures. →



Existing surface channeling with attenuation structures.



Proposed structures to be installed to prevent contamination of stormwater.



**Biodiversity Assessment
Requirements/
Biodiversity Information**

user2

From: Bokamoso <ontvangs@bokamoso.net>
Sent: 27 July 2012 11:18 AM
To: user2@bokamoso.net; user4@bokamoso.net
Subject: FW: Application for Environmental Authorisation: N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility (Project Ref: 002/12-13/W0004)- Biodiversity Requirements

From: GDARD Biodiversity Information (GDARD) [mailto:GDACE_BiodiversityInfo@gauteng.gov.za]
Sent: 27 July 2012 10:58 AM
To: Bokamoso
Subject: RE: Application for Environmental Authorisation: N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility (Project Ref: 002/12-13/W0004)- Biodiversity Requirements

Morning

With regard to the above project, no specialist biodiversity studies are required to be investigated.

The absence of wetlands on site should be verified. Should a wetland be located, a wetland specialist study will be required.

Red/Orange Listed plant species information relevant to a wider geographic area can be obtained from Lorraine Mills (Lorraine.Mills@gauteng.gov.za <<mailto:Lorraine.Mills@gauteng.gov.za>>).

All specialist studies must comply with GDARD Requirements for Biodiversity Assessments. The most recent version of this document (currently version 2) can be obtained by e-mailing GDARD_BiodiversityInfo@gauteng.gov.za.

Should the environmental assessment practitioner be of the opinion that any of the above specialist studies are unnecessary for the site/activity in question, then an ecologically-based motivation justifying why the studies are deemed unnecessary must be submitted to GDARD as part of the application. This submission will be evaluated and either accepted or returned to the applicant for the completion of the necessary studies.

Please do not send follow up inquiries to this message as they will not be processed. For further queries please contact Phuti Matlamela (Phuti.matlamela@gauteng.gov.za).

Regards

EIA Unit

From: Bokamoso [<mailto:lizelleg@mweb.co.za>]
Sent: Thu 2012/07/12 08:25 AM
To: GDARD Biodiversity Information (GDARD)
Subject: FW: Application for Environmental Authorisation: N.N. Metals (Pty) Ltd Waitloo Metal Reclamation Facility (Project Ref: 002/12-13/W0004)- Biodiversity Requirements

user2

From: User2 <user2@bokamoso.net>
Sent: 12 July 2012 08:26 AM
To: GDACE_BiodiversityInfo@gauteng.gov.za
Subject: FW: Application for Environmental Authorisation: N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility (Project Ref: 002/12-13/W0004)- Biodiversity Requirements
Attachments: 112070616334701602.gif; 112070616334701802.gif; 112070616334702002.gif; Study Area.dbf; Study Area.shx; Study Area.shp

To Whom it may concern:

Please find attached the shapefile for the proposed N. N. Metals (Pty) Ltd. Waltloo Metal Reclamation Facility with project ref No: 002/12-13/W0004.

Please kindly forward us any biodiversity requirements, for the said proposed metal reclamation facility.

We trust that you find this in order. Please contact our office if you have any enquiries.

Regards

Niel Brink

From: User3 [<mailto:user3@bokamoso.net>]
Sent: 12 July 2012 08:08 AM
To: user2@bokamoso.net
Subject: FW: Application for Environmental Authorisation: N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility (Project Ref: 002/12-13/W0004)- Biodiversity Requirements

From: Bokamoso [<mailto:ontvangs@bokamoso.net>]
Sent: 11 July 2012 03:10 PM
To: user3@bokamoso.net
Subject: FW: Application for Environmental Authorisation: N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility (Project Ref: 002/12-13/W0004)- Biodiversity Requirements

From: GDARD Biodiversity Information (GDARD) [mailto:GDACE_BiodiversityInfo@gauteng.gov.za]
Sent: 11 July 2012 02:10 PM
To: Bokamoso
Subject: RE: Application for Environmental Authorisation: N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility (Project Ref: 002/12-13/W0004)- Biodiversity Requirements

Good day

There is no attachment.

Regards
EIA Unit

From: Bokamoso [<mailto:lizelleg@mweb.co.za>]
Sent: Fri 2012/07/06 04:33 PM
To: GDARD Biodiversity Information (GDARD)

Subject: Re: Application for Environmental Authorisation: N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility (Project Ref: 002/12-13/W0004)- Biodiversity Requirements

To Whom it may concern:

Please find attached the shapefile for the proposed N. N. Metals (Pty) Ltd. Waltloo Metal Reclamation Facility with project ref No: 002/12-13/W0004.

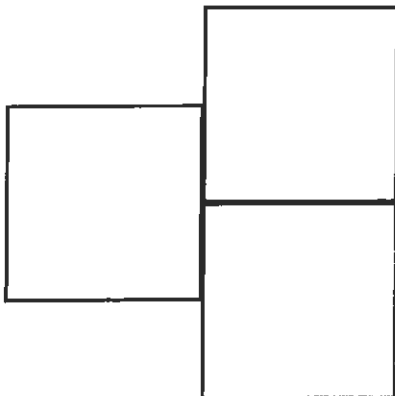
Please kindly forward us any biodiversity requirements, for the said proposed metal reclamation facility.

We trust that you find this in order. Please contact our office if you have any enquiries.

Niel Brink

**Bokamoso Landscape Architects &
Environmental Consultants**

T: +27(12) 346 3810
F: +27(86) 570 5659
lizelleg@mweb.co.za
www.bokamoso.net



To Whom it may concern:

Please find attached the shapefile for the proposed N. N. Metals (Pty) Ltd. Waltloo Metal Reclamation Facility with project ref No: 002/12-13/W0004.

Please kindly forward us any biodiversity requirements, for the said proposed metal reclamation facility.

We trust that you find this in order. Please contact our office if you have any enquiries.

Regards

Niel Brink

From: User3 [<mailto:user3@bokamoso.net>]

Sent: 12 July 2012 08:08 AM

To: user2@bokamoso.net

Subject: FW: Application for Environmental Authorisation: N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility (Project Ref: 002/12-13/W0004)- Biodiversity Requirements

From: Bokamoso [<mailto:ontvangs@bokamoso.net>]

Sent: 11 July 2012 03:10 PM

To: user3@bokamoso.net

Subject: FW: Application for Environmental Authorisation: N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility (Project Ref: 002/12-13/W0004)- Biodiversity Requirements

From: GDARD Biodiversity Information (GDARD) [mailto:GDACE_BiodiversityInfo@gauteng.gov.za]
Sent: 11 July 2012 02:10 PM
To: Bokamoso
Subject: RE: Application for Environmental Authorisation: N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility (Project Ref: 002/12-13/W0004)- Biodiversity Requirements

Good day

There is no attachment.

Regards

EIA Unit

From: Bokamoso [<mailto:lizelleg@mweb.co.za>]
Sent: Fri 2012/07/06 04:33 PM
To: GDARD Biodiversity Information (GDARD)
Subject: Re: Application for Environmental Authorisation: N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility (Project Ref: 002/12-13/W0004)- Biodiversity Requirements

UID09duf63i2bd

To Whom it may concern:

Please find attached the shapefile for the proposed N. N. Metals (Pty) Ltd. Waltloo Metal Reclamation Facility with project ref No: 002/12-13/W0004.

Please kindly forward us any biodiversity requirements, for the said proposed metal reclamation facility.

We trust that you find this in order. Please contact our office if you have any enquiries.

Niel Brink

Bokamoso Landscape Architects &

Environmental Consultants

T: +27(12) 346 3810

F: +27(86) 570 5659

lizelleg@mweb.co.za

www.bokamoso.net <<http://www.bokamoso.net/>>

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Appendix H: Final EMPr

October
2013

Final Environmental Management Programme (EMPr) for the Proposed N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility

Ref nr: GAUT 002/12-13/W0004

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List of Abbreviations:

BA	Basic Assessment
DWAF	Department of Water Affairs and Forestry
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
ECA	Environmental Conservation Act
ECO	Environmental Control Officer
EIA	Environmental Assessment Practitioner
EMPr	Environmental Management Programme
ESI	Environmental Site Instruction
ESO	Environmental Site Officer
GDARD	Gauteng Department of Agriculture and Rural Development
HSO	Health and Safety Officer
I & AP	Interested and Affected Party
MRF	Metal Reclamation Facility
NEMA	National Environmental Management Act
NEMWA	National Environmental Management: Waste Act

Final Environmental Management Program (EMPr) for the proposed N.N. Metals (Pty) Ltd Metal Reclamation Facility
(Project Ref No: 002/12-13/W0004)

OEMPr	Operational Environmental Management Programme
OHSA	Occupational Health and Safety Act
PPE	Personal Protective Equipment
SEMA	Specific Environmental Management Act
SHE	Safety, Health and Environmental
SHEQ	Safety, Health, Environmental and Quality
WML	Waste Management License

1. Introduction and Background

1.1 Overview and Background:

Bokamoso Landscape Architects & Environmental Consultants were appointed as independent environmental consultants/ Environmental Assessment Practitioner (EAP) to facilitate the application process for Environmental Authorisation (EA)/Waste Management License (here after referred to as a WML) for the proposed **N.N. Metals (Pty) Ltd Waltloo Metal Reclamation Facility (MRF)** in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEMWA) and the 2010 Environmental Impact Assessment (EIA) Regulations.

The National Environmental Management: Waste Act, 2008, came into effect on 1 July 2009, and subsequently 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. On 3 July 2009 the Minister of Water and Environmental Affairs published a list of waste management activities, which required authorisation in terms of the Waste Act prior to commencement. In terms of Government Notice 718 of the Waste Act, any person who wishes to commence, undertake or conduct a waste management activity, as listed under Category A, must conduct a Basic Assessment (BA) process, as stipulated in the EIA Regulations, made under Section 24(5) of NEMA, 1998 as part of a WML application.

N. N. Metals (Pty) Ltd is a prominent and well-known dealer of ferrous and non-ferrous metals and their metal reclamation facilities services a considerable number of scrap metal suppliers, dealers and vendors in the broader Pretoria, Brits and Phalaborwa area. N.N. Metals (Pty) Ltd is operating an existing metal reclamation facility in the in Koedoespoort, Silverton, but it is their intension to relocate the said facility to a property in Waltloo, which is currently owned by the applicant. Thus, in order to ensure compliance with the Waste Act, an application for a new WML was compiled and submitted to approving authority, the Gauteng Department of Agriculture and Rural Development (GDARD) on 04/06/2012.

The proposed Metal Reclamation Facility is to be established on the remaining extent of erf 110, Waltloo Township, Registration Division: JR., Gauteng Province, and measures

approximately 1, 2328 hectares in extent. *(Please refer to Figure 1-Locality Map and Figure 2-Aerial Map)*

The property is located within an existing industrial note, and is at present in a developed and transformed state, with some existing buildings (on its southern extent) and scattered trees bordering the site on its western and south-eastern boundary. A small portion of open space, and railway line furthermore separate the site from the properties to its north.

This report represents the Environmental Management Programme (EMPr), compiled in terms of Regulation 31(2)(p) of the 2010 Environmental Impact Assessment (EIA) Regulations.



1.2 Purpose and objectives of the EMPr:

As mentioned before the final EMPr has been prepared in terms of Regulation 33 of GNR No. 543 of NEMA, 2010 and incorporates the environmental management and mitigation measures associated with the relevant phases applicable to the proposed N.N. Metals Watloo MRF. Such environmental management/mitigation measures arise from the Basic Assessment Process and are translated into the EMPr to ensure that the bio-physical, social environmental impacts and human health risk and liabilities identified are effectively managed during the construction, operational and decommissioning/closure phases of the project proposal. An EMPr can thus subsequently in simpler terms be considered as a management tool applied to ensure that the avoidable adverse environmental impacts that relate to the project proposal are prevented, and that the positive benefits which are associated with the said project are in turn improved (Department of Environmental Affairs and Tourism, 2004).

Specific objectives central to the EMPr are to:

- Provide for and define measures which arise from the Basic Assessment process, to ensure the effective management of unavoidable adverse environmental impacts associated with the project proposal;
- Provide and define a framework for the appropriate implementation of the relevant environmental management/mitigation measures specified as part of the Basic Assessment Process.
- Provide and define the roles and responsibilities of various parties to ensure the effective implementation of the environmental management/mitigation measures specified; and
- Provide and define monitorable standards to ensure the effective assessment of compliance to/with the relevant environmental management/mitigation measures specified.

1.3 Scope, structure and layout of EMPr:

The EMPr has been prepared as a living document and essentially as a management tool used to ensure that the management and mitigation measures which arise from the Basic Assessment Process for the proposed MRF is dually conveyed and applied in practice. The EMPr provide for management and mitigation measures applicable to all phases associated with the project proposal which to be applied throughout the project life-cycle. The EMPr thus subsequently include and address the management and mitigation measures which relate to the flowing project phases:

- Planning and design phase;
- Construction phase;
- Operational phase; and
- Decommissioning/closure phase.

2. Administration and Management

2.1 EMPr Administration:

The EMPr shall be included in all tender documentation and its content shall be conveyed through all official contract documentation. The EMPr is essentially, in terms of the provisions of the EA/WML, an extension of the EA/WML. All parties working for, or on behalf of the applicant, including but not limited to the main contractor and all sub-contractors or vendors are obligated to ensure that all provisions and/or management measured stipulated in the EMPr are appropriately executed.

The EMPr will thus in light of the above, be made available to all members of the professional team, and be available on site, as a hard copy.

2.2 Roles and Responsibilities:

In order to ensure that the provisions of the EMPr are adhered to, and all management measures appropriately implemented, all role players involved must have a clear understanding of their roles and responsibilities pertaining to development of the proposed MRF. *Please refer to Table 1 for a list of all relevant role players*

Table 1: Relevant role players

Abbreviation	Role Player/Party Involved
(A)	Authorities with specific reference to GDARD
(D)	Developer/Applicant and/or Proponent
(ECO)	Environmental Control officer
(PM)	Project Manager
(C)	Contractor
(EAP)	Environmental Assessment Practitioner
(ESO)	Environmental Site Officer

2.2.1 Authorities- GDARD

The GDARD is the lead competent authority responsible for reviewing all relevant documentation related to the application for EAWML, and authorising the development and operation of the proposed MRF. GDARD will overall to the above authorise the content of the EMPr. GDARD, has as per condition of the EAWML, the authority to attend to site visits, during construction, or to monitor compliance to its relevant provisions throughout the project life-cycle, including decommissioning and closure of project components.

2.2.2. Developer/Applicant and/or project proponent (D):

The Developer/Applicant and/or project proponent is ultimately accountable for ensuring compliance with the provisions of the EMPr, and EAWML. The said role player shall as

per condition of the EA /WML appoint an independent Environmental Control Officer (ECO) to monitor, assess and report compliance with the provisions of the EMPr during the construction phase of the proposed development. The Developer/Applicant and/or project proponent shall ensure that the ECO is integrated as part of the professional team.

2.2.3 Environmental Control Officer (ECO):

The ECO shall be an independent entity appointed as per condition of the EAWML by the Developer/Applicant and/or project proponent for the duration of the pre-construction and construction phase of the proposed development to monitor, assess and report on compliance with the provisions of the EMPr. The duties of the ECO include the following:

- The ECO shall ensure that the professional team, including but not limited to the contractor and/or sub-contractors and ESO is aware of the provisions of the EMPr;
- Assist the Developer/Applicant and/or project proponent to ensure that all the necessary authorisations/permits have been obtained;
- Maintain open and direct lines of communication between Developer, ESO, and Contractor with regard to matters pertaining to the implementation of the EMPr;
- Supervise and/or oversee environmental awareness training performed by the ESO for all personnel on site;
- Reviewing and approving all method statements compiled by the contractor and/or sub-contractor;
- Assist the contractor(s) and/or sub-contractor(s) in re-mediating environmental damage as a result of construction activities, and/or finding environmental sound practices to resolve problems;
- Conduct regular site visits to monitor, assess and report compliance with the provisions of the EAWML and EMPr;
- Compile environmental site audits to be submitted to the competent authority and circulated to the profession team for perusal

- Recommend the issuing of fines and/or penalties for transgression with the provisions of the EMPr;
- Undertaking regular review of the EMPr and facilitate the required changes to be made;
- The ECO shall ensure that the ESO is aware of any rehabilitation to be conducted, prior to completion of the project contract, and to review and approve method statement(s) pertaining to the rehabilitation of affected areas; and
- Compile a post-construction environmental audit as per condition of the EA/WML (in the event if required by authorisation) with regard to the implementation of the EMPr to be submitted to the competent authority and circulated to the professional team.

2.2.4 Project Manager (PM):

The project manager is responsible for coordination of various activities and ensures compliance with the EMPr through delegation of the EMPr to the contractors and monitoring of performance as per the ECO's reports.

2.2.5 Contractor (C):

The contractors shall be responsible for ensuring that all activities on site are undertaken in accordance with the environmental provisions detailed in this document and that sub-contractor and labourers are duly informed of their roles and responsibilities in this regard.

The contractor will be required, where specified to provide Method Statements setting out in detail how the management actions contained in the EMPr will be implemented.

The contractors will be responsible for the cost of rehabilitation of any environmental damage that may result from non-compliance with the environmental regulations.

2.2.6 Environmental Assessment Practitioner (EAP):

According to Section 1 of NEMA an EAP is *“the individual responsible for the planning, management, and coordination of environmental impact assessments, strategic environmental assessments, environmental management plans or any other appropriate environmental instrument introduced through regulations”*.

2.2.7 Environmental Site Officer (ESO):

The main contractor shall appoint an appropriately trained/qualified Environmental Site Officer (ESO) to act as their representative on site, which would be responsible to oversee the contractor's internal compliance with the conditions of the EA/WML and EMPr, and to ensure that environmental specifications are adhered to. The ESO will be responsible to perform the following specific duties:

- Oversee the contractor's compliance with the conditions/provisions of the EA/WML and EMPr;
- Conduct daily site inspections to monitor, assess and report non-compliance on site;
- Advise the contractor and provide for appropriate management measures in the event of non-compliance;
- Report back to the ECO on compliance/non-compliance;
- Maintain the Environmental Site Instruction (ESI) Book on a daily basis;
- Keep record of all environmental incidents which occur on site, and methods used to deal with; and
- Keep record of all complaints (maintain a compliant register) from I & AP's, surrounding land-owners and the general public.

2.3 Environmental Awareness Training:

The Contractor shall ensure that all senior personnel on site are familiar with the content and conditions/provisions of the EA/WML and EMPr. The contractor shall in addition ensure that all staff on site, including site managers and ground workers receives the necessary basic/introduction training in environmental management/environmental awareness, and made known of the management measures contained in the EMPr.

3. Applicable legislation

The proposed MRF will comply with the following Legislation and the Regulations promulgated hereunder:

- The Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996);
- The National Environmental Management Act, 1998 (Act No. 107 of 1998);
 - 2010 EIA Regulations (Government Notice 543, 544, 545 & 546)
- The National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004);
- The National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004);
- The National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
 - Government Notice 718
- The National Water Act, 1998 (Act No. 36 of 1998);
- The National Heritage Resources Act, 1999 (Act No. 25 of 1999); and
- The Occupational Health and Safety Act, 1993 (Act No. 85 of 1993).

4. Monitoring and Compliance

4.1 Monitoring of compliance to the provisions and/or management measures contained in the EA/WML and EMPr:

The implementation of the relevant provisions and/or management measures contained in the EA/WML and EMPr will be subjected to monitoring and review to ensure compliance.

Reference is made to routine and periodic monitoring to verify, assess and report on compliance with the relevant provisions of the EA/WML and EMPr, according to a set performance criteria, provided for throughout the said document. Attention should specifically be given to the monitoring of aspects related to the bio-physical, cultural/heritage and social environment(s). Compliance monitoring will essentially be conducted at relevant stages during the life cycle of the proposed MRF. The following parties, whether on behalf of the client/contractor or as an independent entity will be responsible to enforce, monitor and report on compliance.

4.1.1 The ESO:

The ESO will be directly responsible to enforce compliance with the relevant provisions of the EMPr, and act as the client and contractor representative. The ESO will conduct routine monitoring on a daily basis (applicable to a work week of Monday to Friday) for the duration of the pre-construction, construction and rehabilitation phase of the proposed MRF. The ESO will report directly to the ECO and in consultation with the said entity, specify actions to ensure compliance and/or measures, to remediate/rehabilitate environmental damage(s) caused.

4.1.2 The ECO:

The ECO will be appointed as an independent entity to monitor compliance on a periodic basis as specified by the relevant competent authority outlined in the EA/WML. The ECO will therefore essentially compliance site visits for the duration of the construction phase of the proposed MRF.

Specific actions include:

- Site compliance inspections to verify and assess compliance with the relevant provisions of the EA/WML and EMPr;
- Report to the ESO and main/building contractor to convey non-compliance, and specific actions to be performed to ensure compliance and/or measures, to remediate/rehabilitate environmental damage(s) caused;

- Compile environmental compliance assessment reports (environmental compliance audit reports) (on a periodic basis as specified by the relevant competent authority outlined in the EAWML) for submission to the applicant/client, project manager, ESO, main/building contractor and the compliance monitoring and assessment unit of GDARD.

4.1.3 Periodic Environmental Compliance Monitoring:

An independent environmental officer should be appointed as per condition of the EAWML to conduct environmental compliance audits for the duration of the operational phase of the proposed MRF. Reference is made to the following actions:

- Conduct compliance site inspections for the duration of the operation phase. Environmental compliance site inspection to be conducted to evaluate, assess and report on compliance with the relevant operational provisions applicable to the EAWMRF and EMPr;
- Compile compliance assessment reports (environmental compliance audit reports) to be submitted to the facility manager and the compliance monitoring and assessment unit of GDARD;

The following assessment and evaluation criteria will be applied in order to establish the level and/or degree of compliance with the relevant provisions. ***Please refer to Table 3 for the applicable compliance criteria.***

Table 2: Compliance Assessment Criteria

Level of compliance	Assessment Criteria
Full Compliance	<i>When a site activity and/or commitment has been implemented, completed, is scheduled and/or is maintained on an ongoing basis.</i>
Partial Compliance	<i>When a site activity and/or commitment have been commenced with, changed or is in the process of being implemented but might not necessarily be on schedule or executed exactly as per/according condition/requirement of the EMPr and/or EA.</i>

Non-Compliance	<i>When a site activity and/or commitment have not been commenced with, not completed to plan or when completed but not as per/according condition/requirement of the EMPr and/or EA.</i>
Not Applicable	<i>When an activity has not yet commenced or could not be determined on the day of the audit.</i>

5. Procedures for environmental incidents

5.1 Leakages and spills:

- Identify and isolate the source of spill and/or leakage;
- Notify the ESO and ECO of spill incident;
- Stop if possible under the circumstances the source of spill and/or leakage;
- Remediate spill according to the method statement supplied and approved;
- Contain spilt material, using the spill kit and sand;
- Consult and appoint a specialist remediation contractor for major incidents (ECO to advise);
- Remove spilt material and contain and dispose of hazardous content according to the method statement supplied and approved; and
- All management and remediation of spills should be conducted according to the incident management plan provided for by the relevant main/building contractor;

5.2 Failure of erosion and sediment controlling devices:

- Identify and isolate the affected area;
- Isolate and contain silt material, through the installation of hay bales etc;
- Install new erosion blanket, and/or silt fence;
- Rehabilitate affected area, or environmental damage due to failure;
- ESO to consult closely with ECO, and remediate incident according to the method statement supplied and approved;
- Monitor the effectiveness of new structures and/or control mechanisms.

5.3 Bank/slope failure:

- Identify and isolate the affected area;
- Stabilise toe of slope, with the use of erosion blankets, the installation of temporary sand bags, logs or gabion baskets depending on the extent and severity of the bank/slope failure;
- Install, upon stabilisation the necessary erosion and silt control mechanisms;
- ESO to consult closely with the ESO, and stabilise bank/slope according to the method statement supplied and approved; and
- Monitor the effectiveness of stabilisation and/or erosion/silt control mechanisms;

5.4 The discovery of rare and/or endangered species:

- Cease all construction work;
- ESO to notify the ECO;
- Identify and isolate the location of species;
- If an animal, identify and isolate the location of species;
- The ECO to arrange for the identification of species by faunal/floral and/or biodiversity species, and for the relocation of the species if possible; and
- Recommencement of construction work upon discretion of the ECO.

5.5 The discovery of archaeological or cultural/historical resources:

- Cease all construction work;
- ESO to notify ECO;
- Identify and isolate the location of resource;
- ECO to consult with cultural/heritage specialist, and/or archaeologist, including the South African Heritage Resources Agency (SAHRA), to arrange for appraisal of resource;
- Cultural/heritage specialist and/or archaeologist to supply recommendations based on the outcome of specialist assessment;
- Recommencement of construction work upon the discretion of the ECO.

6. Environmental Management and Mitigation Measures

6.1 Planning and Design phase:

Table 3: Environmental Management/Mitigation Measures applicable to the relevant phases of the proposed MRF

Table 3-1: Environmental Management/Mitigation Measures applicable to the planning and design phase

Aspect	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance Indicator	Responsibility	Frequency of Action
General	Project contract General	To make the EMPr enforceable under the general conditions of the contract.	The EMPr document must be included as part of all tender documentation.	The EMPr is included as part of the tender documentation	Developer/Applicant	During planning and design
Geology and Soils	Contamination and/or pollution of top and sub-soils; Land contamination	To minimise and/or prevent the contamination of top and sub-soils due to the operation of the proposed MRF.	A proper stormwater management system should be designed for implementation during construction to manage all surface water flows in a sustainable manner. Provision should be made for an oil-water separator to remove all hydrocarbons, greases etc. as a result of waste items that may be contaminated, prior to be discharged into the municipal stormwater system; and Proper provision should be made for a designated area on site for the duration of the operational phase for the storage of hazardous and/or flammable items, including oils, greases, fuel etc. The said area should be lined with some form of secondary containment and banded to contain at least 110% of the spilled substance.	Stormwater management system design by a relevant professional, and ready implementation during construction. Provision made for a designated area for the storage of hazardous and/or flammable substances.	Developer/Applicant Civil Engineer	During planning and design
Surface Hydrology	Surface water pollution Contamination of stormwater generated on site.	To prevent and minimise the risk for surface water pollution, as a result of stormwater contamination.	A detailed storm water management plan must be approved by the Local Authority prior to commencement of construction activities. Provision should be made for an oil-water separator to remove all hydrocarbons, greases etc, prior to discharge in the existing stormwater management system. The stormwater management systems should be implemented according to guidelines provided by the relevant	Compilation and approval of storm water management plan Provision made for a designated area for the storage of hazardous and/or	Engineer Individual Developer Applicant	During Planning and Design

Aspect	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
			<p>Local Authority Departments;</p> <p>The storm water system for the proposed MRF must be designed to:</p> <ul style="list-style-type: none"> o Reduce and/ or prevent siltation, erosion and water pollution; o Storm water runoff should not be concentrated as far as possible and sheet flow should be implemented; o Provide for the removal of hydrocarbons, greases via an oil/water separator. <p>Provision should be made for energy dissipaters where necessary to reduce the velocity of stormwater flows on site;</p> <p>Surface storm water generated as a result of the development must not be channeled directly into any natural drainage system or wetland;</p> <p>The stormwater management plan should be designed in a way that aims to ensure that post development runoff does not exceed predevelopment values in:</p> <ul style="list-style-type: none"> o Peak discharge for any given storm; o Total volume of runoff for any given storm; o Frequency of runoff; and o Pollutant and debris concentrations reaching water courses. <p>The stormwater drainage network must be kept separate from the sewage effluent system;</p> <p>The municipality must be contacted with regard to any discharges either to stormwater drainage system or to the municipal sewage sewer system;</p> <p>A spill Contingency or Emergency Response Plan</p>	flammable substances.		

Aspect	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
			<p>must be drawn up and should include the actions that need to be taken in account in the event of spillages of chemicals, fuels etc, during the construction and operational phase of the proposed activity.</p> <p>Proper provision should be made for a designated area on site for the duration of the operational phase for the storage of hazardous and/or flammable items, including oils, greases, fuel etc. The said area should be lined with some form of secondary containment and banded to contain at least 110% of the spilled substance.</p> <p>A proper stormwater management system should be designed for implementation during construction to manage all surface water flows in a sustainable manner. Provision should in addition be made for an oil-water separator to remove all hydrocarbons, greases etc. as a result of waste items that may be contaminated, prior to be discharged into the municipal stormwater system; and</p> <p>Proper provision should be made for a designated area on site for the duration of the operational phase for the storage of hazardous and/or flammable items, including oils, greases, fuel etc. The said area should be lined with some form of secondary containment and banded to contain at least 110% of the spilled substance.</p>			
Sub-surface Hydrology	Sub-surface water pollution, as a result of contaminated stormwater.	To prevent and minimise the risk for sub-surface water pollution, as a result of stormwater contamination.		<p>Stormwater management system design by a relevant professional, and ready implementation during construction.</p> <p>Provision made for a designated area for the storage of hazardous and/or flammable substances.</p>	Applicant Civil Engineer	During planning and design phase
Ambient Noise Levels	Nuisance and health risks as a result of excessive noise generated due to operation of Eldan Recycling Plant	<p>To reduce the current noise to be generated by the Eldan Recycling Plant to below the acceptable 70 dBA.</p> <p>To implement all design measures proposed by the</p>	<p>Cognisance should be taken of all the engineering measures proposed by the involved acoustical engineer to be implemented during the construction phase;</p> <p>A structural engineer should where necessary be consulted during the planning and design phase with regard to all modifications to be made to structures;</p>	<p>Cognisance taken of all engineer design solutions as proposed by the involved acoustical engineer for implementation during construction phase;</p> <p>A structural engineer</p>	Contractor, Project manager Structural Engineer	During planning and design phase

Aspect	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
		involved acoustic engineer.	<p>Sufficient provision should be made for the necessary Personal Protective Equipment (PPE) by the applicant, operational manager, and all equipment required sought prior to the commencement of operation;</p> <p>An environmental noise monitoring programme should be compiled prior to operation for implementation during the operational phase by a relevant specialist; and</p> <p>Sufficient financial provision and arrangements should be made for the appointment of a Health and Safety Officer (HSO) for the duration of the operational phase.</p>	<p>where relevant consulted with regard to the implementation of the design measures proposed;</p> <p>Sufficient provision made for the necessary PPE, and all equipment sought prior to the commencement of the operational phase.</p> <p>The necessary financial provision and arrangements made for the appointment of a HSO for the duration of the operational phase.</p>		
	<p>Nuisance and health risks as a result of excessive noise generated due to general plant operation, as result of existing activities to be relocated from Koedoespoort to Waitloo.</p>	<p>To ensure that the noise generated as a result of general plant operations does not adversely contribute towards a source of nuisance and /or pose health risks to site workers and surrounding sensitive receptors.</p>	<p>Sufficient provision should be made for the necessary Personal Protective Equipment (PPE) by the applicant, operational manager, and all equipment required sought prior to the commencement of operation;</p> <p>An environmental noise monitoring programme should be compiled prior to operation for implementation during the operational phase by a relevant specialist; and</p> <p>Sufficient financial provision and arrangements should be made for the appointment of a Health and Safety Officer (HSO) for the duration of the operational phase.</p>	<p>Sufficient provision made for the necessary PPE, and all equipment sought prior to the commencement of the operational phase.</p> <p>The necessary financial provision and arrangements made for the appointment of a HSO for the duration of the operational phase.</p>	Applicant Acoustical Engineer Operational Manager	During planning and design phase

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Aspect	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
Ambient Air Quality	Emissions to air generated and discharged by the Eldan Recycling Plant, with the subsequent result of degraded ambient air quality, and associated health risk to receiving sensitive receptors.	To ensure that the emissions to air generated by Eldan Recycling Plant does not pose an adverse effect on the ambient air quality of walloo and its surrounds and/or a health risk to site workers and/or surrounding sensitive receptors. To provide for the proper monitoring of air emissions for the duration of the operational phase of the proposed MRF.	An external audit should be conducted by the supplier to establish and ensure that the dust extraction system is functioning properly, and/or recommendations made to enhancing its functionality prior to final commissioning; The engineering solutions proposed by N.N. Metals should be implemented prior to final commissioning of the recycling plant. A structural/mechanical engineer should be where relevant consulted; An air quality monitoring programme should be compiled prior to operation for implementation during the operational phase by a relevant specialist. Sufficient provision should be made for the necessary Personal Protective Equipment (PPE) by the applicant, operational manager, and all equipment required sought prior to the commencement of operation; Sufficient financial provision and arrangements should be made for the appointment of a Health and Safety Officer (HSO) for the duration of the operational phase.	An environmental noise monitoring programme compiled prior to operation. An external audit conducted by Eldan and/or other relevant professional, and dust extraction system functioning properly; The engineering solutions as proposed by N.N. Metals implemented. An air quality monitoring programme compiled by a relevant specialist prior to operation; Sufficient provision made for the necessary PPE, and equipment sought prior to the commencement of operation. HSO appointed prior to the commencement of operation.	Applicant Operational Manager Mechanical/Structural Engineer Air Quality Specialist	During Planning and Design phase
Health and Safety	Potential health and safety risks posed to site	To reduce the probability and/or likelihood of the	Sufficient provision should be made for the necessary PPE by the applicant, operational manager, and all equipment required sought prior	Sufficient provision made for the necessary PPE, and	Applicant Operational Manager	During planning and design

Aspect	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
	<p>personnel and receiving sensitive receptors due to the operation of the proposed MRF.</p>	<p>potential health and safety risks to be associated with the operation of the proposed MRF from occurring/manifesting;</p> <p>To mitigate the effects of potential health and safety risks and/or reduce the significance of health and safety risks to be associated with the operation of the proposed MRF.</p>	<p>to the commencement of operation;</p> <p>Sufficient financial provision and arrangements should be made for the appointment of a Health and Safety Officer (HSO) for the duration of the operational phase;</p> <p>An Emergency plan should be compiled prior to operation and implemented for the duration of operation;</p> <p>An air quality monitoring programme should be compiled prior to operation for implementation during the operational phase by a relevant specialist; and</p> <p>An environmental noise monitoring programme should be compiled prior to operation for implementation during the operational phase by a relevant specialist.</p>	<p>equipment sought prior to the commencement of operation.</p> <p>HSO appointed prior to the commencement of operation;</p> <p>An emergency plan compiled;</p> <p>An air quality and stack emissions monitoring plan compiled prior to operation by a relevant specialist; and</p> <p>An environmental noise monitoring plan compiled prior to operation by a relevant specialist.</p>	<p>Acoustical/ Environmental Noise engineer Air quality specialist</p>	<p>phase</p>

6.2 Construction Phase:

Table 3-2: Environmental Management/Mitigation Measures applicable to the construction phase

Aspect	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
Surface Hydrology	Surface water pollution	To minimize pollution of surface and groundwater resources.	Sufficient and temporary facilities including ablution facilities must be provided for construction workers on site; Performance indicator A minimum of one portable toilet shall be provided per 10 construction workers. The contractor shall keep the toilets in a clean, neat and hygienic condition; Toilets provided by the contractor must be easily accessible and a maximum of 50m from the works area to ensure they are utilized. The contractor (who must use reputable toilet-servicing company) shall be responsible for the cleaning, maintenance and servicing of the toilets. The contractor (using reputable toilet-servicing company) shall ensure that all toilets are cleaned and emptied before the builders' or other public holidays; No person is allowed to use any other area than chemical toilets; No French drain systems may be installed; No chemical or waste water must be allowed to contaminate the run-off on site; No ablution facilities may be placed near any water resource to prevent any water pollution.	Effluents managed Effectively. No pollution of water resources from site. Workforce use toilets provided.	Contractor ESO	As and when required
	Frequency of Action					
		To minimize pollution of surface and groundwater	Drip trays and/ or lined earth bunds must be provided under vehicles and equipment, to contain spills of hazardous materials such as	No pollution of the environment	Contractor ESO	Daily

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		<p>resources due to spilling of materials.</p>	<p>fuel, oil and cement; Repair and storage of vehicles only within the demarcated site area; Spill kits must be available on site for the duration of construction; Oils and chemicals must be confined to specific secured areas within the site camp. These areas must be banded with adequate containment (at least 1.5 times the volume of the fuel) for potential spills or leaks; All spilled hazardous substances must be contained in impermeable containers for removal to a licensed hazardous waste site; No leaking vehicle shall be allowed on site. The mechanic/ the mechanic of the appointed contractor must supply the environmental officer with a letter of confirmation that the vehicles and equipment are leak proof; No bins containing organic solvents such as paints and thinners shall be cleaned on site, unless containers for liquid waste disposal are placed for this purpose on site.</p>	<p>No waste bins overflowing No litter or building waste lying in or around the site</p>	<p>Contractor ESO</p>	<p>Daily Weekly</p>
		<p>To prevent unhygienic usage on the site and pollution of the natural assets.</p>	<p>Weather proof waste bins must be provided and emptied regularly; The contractor shall provide labourers to clean up the contractor's camp and construction site on a daily basis; Temporary waste storage points on the site should be determined. THESE AREAS SHALL BE PREDETERMINED AND LOCATED IN AREAS THAT IS ALREADY DISTURBED. These storage points should be accessible by waste removal trucks and these points should be located in already disturbed areas /areas not</p>			

<p>Ambient Noise Levels</p>	<p>Nuisance as a result of noise generated due to construction and installation of the waste management facilities on site.</p>	<p>To prevent and/or reduce nuisance as a result of noise generated by construction activities on site; To reduce the significance of adverse health as a result of noise generated by construction activities on site.</p>	<p>highly visible from the properties of the surrounding land-owners/ in areas where the wind direction will not carry bad odours across the properties of adjacent landowners. This site should comply with the following:</p> <ul style="list-style-type: none"> • Skips for the containment and disposal of waste that could cause soil and water pollution, i.e. paint, lubricants, etc.; • Small lightweight waste items should be contained in skips with lids to prevent wind littering; • Bunded areas for containment and holding of dry building waste. <p>No solid waste may be disposed of on the site;</p> <p>No waste materials shall at any stage be disposed of in the open veld of adjacent properties;</p> <p>The storage of solid waste on the site, until such time as it may be disposed of, must be in a manner acceptable to the local authority and DWA;</p> <p>Cover any wastes that are likely to wash away or contaminate storm water.</p> <p>Site workers must comply with the Provincial noise requirements as outlined;</p> <p>All construction vehicles, plant and equipment are to be kept in good repair;</p> <p>Truck traffic should be routed away from noise sensitive areas, where possible;</p> <p>Noisy operations should be combined so that they occur where possible at the same time;</p> <p>Construction activities are to be contained to reasonable hours during the day and early evening. Night-time activities near noise sensitive areas should not be allowed. No</p>	<p>All site workers comply with the provincial noise requirements;</p> <p>All construction vehicles, plant and equipment kept in good repair;</p> <p>Construction activities contained to the prescribed reasonable hours during the day time and weekends;</p>	<p>Contractor Health and Safety Officer (HSO)</p>	<p>For the duration of the construction phase.</p>
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<p>Health and Safety</p>	<p>Health and safety risks associated with the construction and installation of the waste management facilities on site.</p>	<p>To reduce the probability of health and safety risks from occurring and/or manifested as a result of noise generated by construction related activities; and</p> <p>To prevent and/or reduce nuisance and the significance and probability of adverse health risks associated with noise generated as a result of and/or associated with construction activities on site.</p>	<p>construction should be allowed on weekends from 14h00 on Saturday afternoons to 06h00 the following Monday morning;</p> <p>With regard to unavoidable very noisy construction activities in the vicinity of noise sensitive areas, the contractor should liaise with the surrounding land-owners on how best to minimise impact, and the local population should be kept informed of the nature and duration of intended activities;</p> <p>As construction workers operate in a very noisy environment, it must be ensured that their working conditions comply with the requirements of the Occupational Health and Safety Act (Act No. 85 of 1993) (OHSA)</p> <p>All site workers shall wear the necessary PPE when working in a noisy environment;</p> <p>The contractor shall provide and furnish all site workers with the necessary PPE;</p> <p>A HSO shall be appointed for the duration of the construction phase to oversee all health and safety aspects on site, and recommend measures were deemed necessary.</p> <p>All site and construction workers should wear the necessary PPE (safety helmets, boots, gloves, safety glasses, ear plugs etc.) when working on site during construction;</p> <p>The contractor shall provide all construction workers with the necessary PPE during construction;</p> <p>A Health and Safety Officer (HSO) shall be appointed for the duration of the construction phase, to oversee all health and safety aspects, and recommend safety measures were deemed necessary;</p>	<p>Working conditions of site workers comply with the OHSA, 1993;</p> <p>All site workers furnished with the necessary PPE;</p> <p>HSO appointed for the duration of the construction phase, and recommend where necessary Health and Safety Measures to be implemented.</p>	<p>Applicant/ Developer Health and Safety Officer Contractor Construction manager/ Structural Engineer.</p>	<p>For the duration of the construction phase</p>
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		<p>occurring.</p>	<p>All facilities shall be constructed according to specifications and design, and all work to be supervised by a professional construction manager on site;</p> <p>Although regarded as a normal practice, it is important to erect proper signs indicating the operations of heavy vehicles in the vicinity of dangerous crossings and access roads or even in the development site if necessary;</p> <p>With the exception of the appointed security personnel, no other workers, friend or relatives will be allowed to sleep on the construction site (weekends included);</p> <p>Construction vehicles and activities to avoid peak hour traffic times;</p> <p>Presence of law enforcement officials at strategic places and/or road crossings where required must be ensured; and</p> <p>Although regarded as a normal practice, it is important to erect proper signs indicating the danger of the excavation in and around the development site. Putting temporary fencing around excavations where possible.</p>	<p>duration of construction phase on site and oversee all health and safety aspects; and</p> <p>All facilities constructed according to the required specifications and design, and all work supervised by a professional construction manager and/or structural engineer where deemed necessary.</p>	
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6.3 Operational Phase:

6.3.1 Introduction:

This particular section of the EMPr is applicable to the operational phase of the proposed *N.N. Metals Waitloo Metal Reclamation Facility*, and is specifically designated to provide for and convey management measures to be implemented for the duration of the operational phase, to ensure and maintain the environmental performance of the said MRF. It should be noted that the Operational EMPr (OEMPr) represents a living document, which will essentially be updated on a regular basis for the duration of the operational phase, to incorporate the identification and management of environmental risks and/or impacts associated with the day to day operations of the proposed MRF.

Specific objectives of the OEMPr include:

- To identify, and provide for measures to ensure the effective management/mitigation of environmental risks and/or impacts to be associated/as a result of the operation/day to day activities of the proposed MRF;
- Provide and define roles and responsibilities for relevant parties to ensure the effective implementation of environmental management/mitigation measures specified; and
- Provide and define monitorable standards, to ensure the effective assessment of compliance to/with the environmental management/mitigation measures specified.

6.3.2 Roles and Responsibilities:

6.3.2.1 Operational/Facility Manager/Lead Agent:

The operational/facility manager and/or lead agent will be responsible to oversee the day to day operation of the proposed MRF. The said entity will essentially be ultimately be responsible for ensuring compliance with the provisions of the OEMPr, or by anyone acting on their behalf, including, but not limited to any maintenance/external contractor/service provider or sub-contractor rendering a service to the operational/facility manager. The operational/facility manager, shall appoint key personnel including, but not

limited to a Safety/Health and Environmental Manager (SHE) to assist in facilitating the implementation of the OEMPr.

6.3.2.2 Operational Safety/Health and Environmental Manager(s) (SHE):

The safety, health and environmental manager(s) appointed will assist the operational/facility manager to facilitate the implementation of the OEMPr. Key responsibilities of the said entity include:

- Oversee the implementation of the relevant provisions of the OEMPr;
- Identify on a day to day basis environmental risks/impacts to be associated with the operation of the proposed MRF;
- Develop and implement measures to mitigate and/or manage the identified environmental risks;
- Oversee and attend to the environmental awareness training, of all personnel on site, with specific reference to training pertaining to the identification of health, safety and environmental risks, the management thereof, and the implementation of the environmental/management measures stipulated in the OEMPr; and
- Monitor the day to day environmental performance of the proposed MRF, and effectiveness of the mitigation/management measures specified.

6.3.2.3 Environmental Management and Mitigation Measures applicable to the operational phase:

Table 3-3: Environmental Management/Mitigation Measures applicable to the operational phase

Aspect	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
General	Operational/Maintenance Contract	<p>Make the relevant provisions of the OEMPr enforceable under the general conditions of operational contract;</p> <p>Conveyed content and relevant provisions of OEMPr to all applicable parties;</p> <p>The operational/facility manager/lead agent to appoint an Operational Health, Safety and Environmental (SHE) Officer(s)/ Manager to oversee the day to day implementation of the OEMPr.</p>	<p>The relevant provisions of the OEMPr shall be included and made enforceable under the general conditions of operational contract;</p> <p>The content and relevant provisions of the OEMPr shall be conveyed to all applicable parties. The operational, health, safety and environmental site officer shall oversee and attend to the environmental awareness training of all personnel on site; and</p> <p>The operational/facility manager/lead agent shall appoint an operational SHE officer/manager to oversee the day to day implementation of the OEMPr;</p>	<p>The relevant provisions of the OEMPr included and enforceable under the general conditions of operational contract;</p> <p>The operational/facility manager/lead agent have appointed an Operational SHE Officer/Manager, which will oversee the day to day implementation of the OEMPr.</p> <p>The operational SHE officer(s) have overseen and attended to the environmental awareness training of all personnel on site.</p>	<p>Operational/Facility Manager/lead agent</p> <p>SHE Officer/Manager</p> <p>Independent environmental officer.</p>	For duration of the operational phase
Geology and Soils	Contamination and/or pollution of top and sub-soils; Land contamination	To prevent and/or reduce the probability of soil/land contamination as a result of the operation of the	<p>A hazardous items, including oils, Fuels, greases, chemicals, paints etc. should be stored in an appropriate manner on site, in a specific designated area, with secondary containment and adequately banded to contain at least 110% of the spilled substance;</p> <p>All hazardous items and/or substances shall be</p>	<p>All hazardous items/substances appropriately stored in a specific designated area on site;</p> <p>All hazardous</p>	<p>Operational/Facility Manager(s)</p> <p>Facility/site workers</p>	For the duration of the operational phase.

Aspect	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
Surface Hydrology	Surface water pollution; Contamination of stormwater generated on site	To minimise the probability of surface water pollution through the application of appropriate management practice throughout the duration of the operational phase.	<p>handed and managed on site with the utmost of care, and in an appropriate manner;</p> <p>Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred. N.N. Metals (Pty) Ltd should refer to the plan compiled for emergency incidents, with reference to the procedures followed for spills and leaks. All contaminated materials as a result of spills should be managed and disposed of in an appropriate manner; and</p> <p>No contaminated waste material may be accepted at the facility. Strict control should be exercised over incoming materials.</p>	<p>items/substances and handled managed on site in an appropriate manner;</p> <p>Provision made on site for a spill response kit. All spills remediated immediately once occurred, and all contaminated material managed and disposed of in an appropriate manner;</p> <p>No contaminated waste material accepted at the facility, and strict control exercised over incoming materials.</p> <p>The stormwater management system properly maintained on a regular basis, and the functioning of the oil/water separator ensure for the duration of the operational phase;</p> <p>All hazardous items/substances appropriately stored in a specific designated area on site;</p> <p>All hazardous items/substances and</p>	Operational/ facility manager(s) Facility/site workers	For the duration of the operational phase

Aspect	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
Sub-surface hydrology	Sub-surface water pollution, as a result of contaminated stormwater	To minimise the probability/likelihood of sub-surface water pollution through the application of appropriate management practice throughout the duration of the operational phase.	<p>The stormwater management system installed on site should be properly maintained and the functioning of the oil/water separator ensured for the duration of the operational phase;</p> <p>All hazardous items, including oils, Fuels, greases, chemicals, paints etc. should be stored in an appropriate manner on site, in a specific designated area, with secondary containment and adequately banded to contain at least 110% of the spilled substance;</p> <p>Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred. N.N. Metals (Pty) Ltd should refer to the plan compiled for emergency incidents, with reference to the procedures followed for spills and leaks. All contaminated materials as a result of spills should be managed</p>	<p>managed on site in an appropriate manner;</p> <p>Provision made on site for a spill response kit. All spills remediated immediately once occurred, and all contaminated material managed and disposed of in an appropriate manner;</p> <p>No contaminated waste material accepted at the facility, and strict control exercised over incoming materials.</p>	Operational/ facility manager(s) Facility/site workers	For the duration of the operational phase

Aspect	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
Ambient Air Quality	Emissions to air generated and discharged by the Eldan Recycling Plant, with the subsequent of degraded ambient air quality, and associated health risk to receiving sensitive receptors.	To ensure that the emissions to air generated by Eldan Recycling Plant does not pose an adverse effect on the ambient air quality of Watloo and its surrounds and/or a health risk to site workers and/or surrounding sensitive receptors.	<p>and disposed of in an appropriate manner; and</p> <p>No contaminated waste material may be accepted at the facility. Strict control should be exercised over incoming materials.</p>	<p>managed on site in an appropriate manner;</p> <p>Provision made on site for a spill response kit. All spills remediated immediately once occurred, and all contaminated material managed and disposed of in an appropriate manner;</p> <p>No contaminated waste material accepted at the facility, and strict control exercised over incoming materials.</p>	Operational/ facility manager Facility/site workers Applicant/ Developer HSO Air Quality specialist/ Independent Environmental Services Entity	For the duration of the operational phase
		An external audit should be conducted by the supplier (Eidan) and/or any other relevant entity to establish and ensure that the dust extraction system is functioning properly, and/or recommendations made to enhancing its functionality prior to final commissioning;		An external audit conducted by the supplier and/or any other relevant entity, and the proper functioning of the Eidan dust extraction system is verified;		
		The engineering solutions proposed by N.N. Metals should be implemented prior to final commissioning of the recycling plan. These will include the following:		Engineering solutions and relevant design measures as proposed by N.N. Metals implemented prior to the final commissioning of the recycling plant;		
		<ul style="list-style-type: none"> Constructing a 6m wall on the eastern boundary and around the corner of the northern boundary to eliminate dust blowing through the building and plant towards the neighbouring property; and Filters of the dust extraction system need to be replaced regularly and a filter cleaning programme should be implemented to clean these filters weekly. 		All materials to be processed by the		

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Aspect	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
		MRF.	<p>Only materials, with reference to discarded electrical cables, with plastic, paper, textile or rubber insulated cables or steel armoured cables may be processed by the Eldan Recycling Plant;</p> <p>All materials should be thoroughly inspected upon receipt, and prior to processing, to remove all materials not intended for processing, as a result of hazardous properties;</p> <p>A monitoring plan should be developed, by a relevant independent entity, to amongst others provide for the monitoring of emissions from the single stack discharge. Monitoring should be conducted by the site Safety, Health and Environmental Officer on site, and/or an independent entity, in respect of emissions discharged, and the functioning of the dust extraction system;</p> <p>All site workers should wear the necessary PPE (safety helmets, boots, gloves, safety glasses, ear plugs, dust masks etc.) when working on site during operation;</p> <p>The operational manager shall provide all construction workers with the necessary PPE during operation;</p> <p>A Health and Safety Officer (HSO) shall be appointed for the duration of the operational phase, to oversee all health and safety aspects, and recommend safety measures were deemed necessary.</p>	<p>recycling plant is thoroughly inspected upon receipt, and all materials which is not intended as a result of their hazardous properties removed;</p> <p>An air quality and stack emissions monitoring programme and developed and implemented for the duration of the operational phase;</p> <p>All site workers furnished and wearing the necessary PPE during operation.</p> <p>HSO appointed for the duration of the operational phase, and recommendations made pertaining to all Health and Safety aspects on site on a regular basis.</p>	Operational/ Facility Manager	For the duration of the operational phase.
Ambient Noise Levels	Nuisance and health risks as a result of excessive noise generated due	To reduce the current noise to be generated by the Eldan Recycling Plant to below the	<p>All design measures presented by the Acoustical Engineer, should be implemented to reduce noise level to below the acceptable 70 dBA;</p> <p>The diesel generator, although only used as a</p>	All design measures presented by the acoustical engineer implemented;	Operational/ Facility Manager Facility/site	For the duration of the operational phase.

Aspect	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
	to operation of Eldan Recycling Plant	<p>acceptable 70 dBA.</p> <p>To minimise the significance of potential health risks to be associated with the anticipated adverse noise emissions generated by the Eldan Recycling Plant; and</p> <p>To reduce the probability of potential health risks being associated with the anticipated adverse noise emissions from occurring, manifesting during operation.</p>	<p>backstop source of electricity should be fitted a standard manufacture approved silencer to the engine exhaust;</p> <p>All design measures applicable to reducing the noise levels associated with the generator engine block and cooling fan should be implemented;</p> <p>Constructing a 6m wall on the eastern boundary and around the corner of the northern boundary to minimize noise towards the neighbouring property;</p> <p>The gap between the wall and the roof of the building should be closed with 15mm polystyrene noise insulation to assist with the implementation of better noise mitigation measures in the plant building;</p> <p>All workers working in the vicinity of the recycling plant is required to wear the necessary PPE, with reference to earplugs, earmuffs etc;</p> <p>The operational manager shall provide all workers with the necessary PPE, when working in or in close proximity of the non-ferrous metal recovery facility;</p> <p>A Health and Safety Officer (HSO) shall be appointed for the duration of the operational phase, to oversee all health and safety aspects, and recommend safety measures where deemed necessary;</p> <p>Baseline noise measurements shall be conducted/facilitated by an independent specialist prior to the commissioning of the Eldan Recycling Plant, to establish whether the noise levels associated has effectively been lowered to or below the acceptable 70 dBA; and</p>	<p>The diesel generator fitted with a standard manufacture approved silencer to the engine exhaust;</p> <p>All design measures specified in respect of the noise levels associated with the generator engine block and cooling fan implemented;</p> <p>A 6m wall is constructed on the eastern boundary and around the corner of the northern boundary.</p> <p>The gap was closed with polystyrene noise insulation.</p> <p>All site workers and/or managers working in the vicinity of the Eldan Recycling Plant is equipped with the necessary PPE;</p> <p>A HSO appointed for the duration of the operational phase;</p> <p>The reduction in noise levels to be associated with the Eldan Recycling Plant</p>	<p>workers</p> <p>HSO</p> <p>Acoustical Engineer/ Independent environmental services entity</p>	

Aspect	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
			A monitoring programme should be compiled, and implemented for duration of the operational phase of the activity, to provide for the periodic monitoring of noise emissions generated by the MRF.	to below the acceptable 70 dBA verified; An environmental noise monitoring programme compiled and implemented for the duration of the operational phase.		
	Nuisance and health risks as a result of excessive noise generated due to general plant operation, as result of existing activities to be relocated from Koedoespoort to Waitloo.	To minimise the significance of potential health risks to be associated with the anticipated adverse noise emissions generated general operations; and To reduce the probability of health risks being associated with the anticipated adverse noise emissions from occurring, manifesting during operation.	All workers working is required to wear the necessary PPE with reference to earplugs, earmuffs etc; The operational manager shall provide all workers with the necessary PPE, when working in noisy environments; A Health and Safety Officer (HSO) shall be appointed for the duration of the operational phase, to oversee all health and safety aspects, and recommend health and safety measures where deemed necessary; Baseline noise measurements should be taken by an independent specialist prior to the commissioning of operations, to establish and verify site specific noise levels in relation to the acceptable level; and A monitoring programme should be compiled, and implemented for duration of the operational phase of the activity, to provide for the periodic monitoring of noise emissions generated by the MRF.	All site workers and facility personnel equipped with the necessary PPE; HSO appointed for the duration of the operational phase, and oversees all health and safety aspects on site; Baseline noise measurements taken by an independent specialist; An environmental noise monitoring programme compiled during the operational phase.	Operational/facility manager HSO Acoustical Engineer/ Independent Environmental Services Entity	For the duration of the operational phase.
Visual	Metal recycling, recovery and temporary storage	To reduce the significance of potential health and safety risks to be	All site personnel should wear the necessary PPE (safety helmets, boots, gloves, goggles, ear plugs etc.) when working on site during the operation of the proposed MRF.	All site personnel equipped with the necessary PPE;	Operational Manager Site Personnel	For the duration of the operational

Aspect	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
	<p>operations to visually unobtrusively view sensitive and/or receptors.</p>	<p>associated with the operation of the proposed MRF;</p> <p>To reduce the probability of the potential health and safety risks to be associated with the proposed MRF from manifesting;</p> <p>To provide for a safe and secure working environment.</p>	<p>The operational manager shall provide all operational site workers with the necessary PPE during the operation of the proposed MRF;</p> <p>A Health and Safety Officer (HSO) shall be appointed for the duration of the construction phase, to oversee all health and safety aspects, and recommend safety measures where deemed necessary;</p> <p>Emergency plan, compiled for emergency incidents and associated procedures should be promptly followed/implemented in the event of an emergency;</p> <p>Procedures pertaining to the security and access of the operations, as presented by N.N. Metals should be promptly followed and/or implemented during the operational phase of the MRF;</p> <p>All hazardous items, including oils, greases, chemicals, paints etc. should be stored in an appropriate manner on site, in a specific designated area, with secondary containment and adequately banded to contain at least 110% of the spilled substance;</p> <p>All waste items of a hazardous nature on site should be managed in an appropriate manner, according to the Department of Water Affairs and Forestry (DWAFF) guideline document- <i>minimum requirements for the handling, classification and disposal of hazardous waste</i>;</p> <p>Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred. N.N. Metals (Pty) Ltd should refer to the plan compiled for emergency incidents, with reference to the procedures</p>	<p>HSO appointed for the duration of the operational phase, and oversees all health and safety aspects pertaining to operation;</p> <p>Emergency plan and compiled during operation;</p> <p>Procedures pertaining to security and access arrangements followed;</p> <p>Designated area established on site, with secondary containment and sufficiently banded, and all hazardous items appropriately stored.</p> <p>All waste items of a hazardous nature appropriately managed on site according to prevailing minimum requirements;</p> <p>Provision made for a spill response kit on site, and all contaminated materials as a result</p>	<p>Health and Safety Officer</p> <p>Safety, Health, Environmental and Quality Officer</p> <p>Acoustical Engineer</p> <p>Air Quality Specialist/ Independent Environmental Services Entity</p>	<p>phase</p>

Final Environmental Management Program (EMPR) for the proposed N.N. Metals (Pty) Ltd Metal Reclamation Facility (Project Ref No: 002/12-13/W0004)

Aspect	Environmental risk or issue	Objective or requirement	Mitigation measure	Performance indicator	Responsibility	Frequency of Action
			<p>followed for spills and leaks. All contaminated materials as a result of spills should be managed and disposed of in an appropriate manner;</p> <p>An external audit should be conducted by the supplier to establish and ensure that the dust extraction system (Eidan Recycling Plant) is functioning properly, and/or recommendations made to enhancing its functionality prior to final commissioning;</p> <p>The engineering solutions proposed by N.N. Metals should be implemented prior to final commissioning of the recycling plant;</p> <p>Only materials, with reference to discarded electrical cables, with plastic, paper, textile or rubber insulated cables or steel armoured cables may be processed by the Eidan Recycling Plant;</p> <p>All materials should be thoroughly inspected upon receipt, and prior to processing, to remove all materials not intended for processing, as a result of hazardous properties; and</p> <p>A monitoring plan should be developed, by a relevant independent entity, to amongst others provide for the monitoring of emissions from the single stack discharge. Monitoring should be conducted by the site Safety, Health, Environmental and Quality Officer (SHEQ) on site, and/or an independent entity, in respect of emissions discharged, and the functioning of the dust extraction system.</p>	<p>of the remediation appropriately managed and disposed of;</p> <p>External audit conducted, and the proper and effective function of the dust extraction system verified;</p> <p>All materials thoroughly inspected prior to processing on site;</p> <p>A monitoring programme compiled for implementation during operation in respect on noise and air emissions.</p>		

6.4 Decommissioning/Closure phase:

6.4.1 Introduction:

This particular section of the EMPr is applicable and serves to address/mitigate the environmental impacts that relate to the decommissioning/closure of the *N.N. Metals Waltloo MRF*. Decommissioning involves site closure, the removal of site infrastructure, the remediation of contaminated land and the rehabilitation of the affected environment to reinstate the pre-development land-use/and the agreed/planned post-development land-use to an acceptable level over a given period of time.

6.4.2 Decommission/closure aspects and objectives:

Overall rehabilitation and closure goals for the N.N. Metals Waltloo MRF is to progressively re-instate all affected areas, to safe, stable and non-contaminated/polluted. Please refer to **Table 4** for the key aspects to be associated with site decommissioning and closure and related objectives.

Table 4: Decommissioning/closure aspects and related objectives

Site Aspect	Objective(s)
Pre/Post Development land use	To progressively reinstate the pre-development land-use, and/or the agreed/planned post development land-use(s).
Land stability	To provide for safe and stable site conditions, with specific reference to slope, land-form and geological stability.
Health and Safety	Post closure site conditions that do not pose an adverse health and safety risk to humans and fauna, and or site conditions, whereby the risk to health and safety have reduced to an acceptable level.
Land-form & aesthetic quality	To provide for a final land-form which is neat and tidy and which conform to the natural landscape of the surrounding areas.
Geology and Soils	To remediate all contaminated land, to an acceptable level, as to not adversely affect the post-development land-use.
Surface and Sub-surface hydrology	To provide for measures for reducing the risk for surface and sub-surface water pollution, and/or a post-development land-use which does not pose a risk for water pollution and contamination of the receiving/surrounding environment.

6.4.3. Decommissioning/closure actions:

Actions which relate to the decommissioning/closure of the N.N. Metals Waitloo MRF Include:

- Conduct the necessary decommissioning/closure planning. Specific reference is made to:
 - Engage with all relevant stakeholders, including surrounding land-owners and/or residents, and relevant provincial and local authorities;
 - If legally required, sought all applicable authorisation(s) in terms of NEMA and/or SEMA's which relate to the decommissioning/closure of the MRF;
 - The compilation/facilitation of a specialist decommissioning/closure plan which stipulate the actions applicable to the closure/decommissioning of the MRF;
 - The compilation of a specialist closure/decommissioning EMPr, which provide for the measure applicable to the management/mitigation of adverse and/or significant environmental impacts associated with the decommissioning/closure of the MRF; and
 - The compilation of a monitoring plan/programme which set standards for the establishment of the progress and assess success of specific decommissioning and rehabilitation actions.
- Removal of all site infrastructure, including the demolishing of buildings etc;
- The clearance of all demolition rubble from site;
- The remediation of all contaminated land/soil surfaces;
- The shaping, and grading of the site, to provide for the required land-form;
- The installation of temporary stormwater management on site, including measures for the control of erosion and the associated siltation and pollution of the watercourses on site and the receiving/surrounding natural environment; and

Final Environmental Management Program (EMPr) for the proposed N.N. Metals (Pty) Ltd Metal Reclamation Facility (Project Ref No: 002/12-13/W0004)

- The implementation of monitoring and management actions as per the requirements for the monitoring plan/programme to establish progress and **assess success of** specific decommissioning and rehabilitation actions.

6.4.4 Environmental management/mitigation measures applicable to the decommissioning/closure phase:

Table 5: Environmental Management/Mitigation measures applicable to the decommissioning/closure phase

Aspect	Environmental risk or issue	Mitigation measure	Responsibility	Frequency of Action
Geology and Soils	Soil/land contamination, and pollution of the receiving environment as a result of indiscriminate waste management and disposal, hydrocarbon spillages etc.	<p>All hazardous items, including oil, fuels, greases, chemicals should be stored during the decommission phase in an appropriate manner on site, in a specific designated area with secondary containment and adequately banded to contain at least 110% of the potential spilled substance;</p> <p>Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred;</p> <p>A specialised rehabilitation and remediation contractor should be appointed in the event of a large spill and the relevant authorities informed of such an event;</p> <p>All waste materials, general, and hazardous generated through the decommissioning exercise should be dealt with in an appropriate manner by the decommissioning contractor;</p> <p>All decommissioning activities should be performed under controlled conditions, by a specialised contractor. A risk assessment should be conducted prior to any work performed to inform closure methodologies etc;</p> <p>All relevant authorisations, permits and licenses should be sought by an independent consultant prior to any commencement of decommissioning activities;</p> <p>A Environmental Management Programme (EMPr)</p>	<p>Applicant/Proponent</p> <p>Specialised demolition and decommissioning contractor</p> <p>Independent Environmental Services Entity</p>	<p>During planning</p> <p>For the duration of the decommissioning and closure phase</p>

Aspect	Environmental risk or issue	Mitigation measure	Responsibility	Frequency of Action
<p>Surface Hydrology</p>	<p>Sub-surface water pollution as a result of contaminated stormwater</p>	<p>should be compiled prior to the commencement of the decommissioning operations; and</p> <p>A pre-closure audit should be conducted to establish the nature and extent of any soil/land contamination due to operational activities.</p> <p>All hazardous items, including oil, fuels, greases, chemicals should be stored during the decommissioning phase in an appropriate manner on site, in a specific designated area with secondary containment and adequately banded to contain at least 110% of the potential spilled substance;</p> <p>Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred;</p> <p>A specialised rehabilitation and remediation contractor should be appointed in the event of a large spill and the relevant authorities informed of such an event;</p> <p>All waste materials, general, and hazardous generated through the decommissioning exercise should be dealt with in an appropriate manner by the decommissioning contractor;</p> <p>All decommissioning activities should be performed under controlled conditions, by a specialised contractor. A risk assessment should be conducted prior to any work performed to inform closure methodologies etc;</p> <p>All relevant authorisations, permits and licenses should be sought by an independent consultant prior to any commencement of decommissioning activities;</p> <p>A Environmental Management Programme (EMPr) should be compiled prior to the commencement of</p>	<p>Applicant/Proponent</p> <p>Specialised demolition and decommissioning contractor</p> <p>Independent Environmental Entity</p> <p>Services Engineer</p>	<p>During planning</p> <p>For the duration of the decommissioning and closure phase</p>

Aspect	Environmental risk or issue	Mitigation measure	Responsibility	Frequency of Action
Sub-surface Hydrology	Sub-surface water pollution as a result of contaminated stormwater	<p>the decommission operations;</p> <p>Measures should be implemented on site, prior and during decommissioning operations, to manage surface water, and/or stormwater generated on site in an appropriate manner, in order to limit the risk for contamination.</p>	<p>Applicant/Proponent</p> <p>Specialised demolition and decommissioning contractor</p> <p>Independent Environmental Entity</p> <p>Civil/Services Engineer</p>	<p>During closure planning</p> <p>For the duration of the decommissioning and closure phase</p>
		<p>All hazardous items, including oil, fuels, greases, chemicals should be stored during the decommission phase in an appropriate manner on site, in a specific designated area with secondary containment and adequately banded to contain at least 110% of the potential spilled substance;</p> <p>Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred;</p> <p>A specialised rehabilitation and remediation contractor should be appointed in the event of a large spill and the relevant authorities informed of such an event;</p> <p>All waste materials, general, and hazardous generated through the decommissioning exercise should be dealt with in an appropriate manner by the decommissioning contractor;</p> <p>All decommissioning activities should be performed under controlled conditions, by a specialised contractor. A risk assessment should be conducted prior to any work performed to inform closure methodologies etc;</p> <p>All relevant authorisations, permits and licenses should be sought by an independent consultant prior to any commencement of decommissioning activities;</p>		

Aspect	Environmental risk or issue	Mitigation measure	Responsibility	Frequency of Action
<p>Ambient Air Quality</p>	<p>Emissions to air Air pollution Dust fallout Degraded ambient air quality</p>	<p>A Environmental Management Programme (EMPr) should be compiled prior to the commencement of the decommissioning operations;</p> <p>Measures should be implemented on site, prior and during decommissioning operations, to manage surface water, and/or stormwater generated on site in an appropriate manner, in order to limit the risk for contamination.</p> <p>All waste materials, general, and hazardous generated through the decommissioning exercise should be dealt with in an appropriate manner by the decommissioning contractor;</p> <p>All decommissioning activities should be performed under controlled conditions, by a specialised contractor. A risk assessment should be conducted prior to any work performed to inform closure methodologies etc;</p> <p>All relevant authorisations, permits and licenses should be sought by an independent consultant prior to any commencement of decommissioning activities;</p> <p>An Environmental Management Programme (EMPr) should be compiled prior to the commencement of the decommissioning operations; and</p> <p>All areas exposed should be effectively damped during decommissioning operations to suppress dust effectively.</p>	<p>Applicant/Proponent</p> <p>Specialised demolition and decommissioning contractor</p> <p>Independent Environmental Services Entity</p>	<p>During closure planning</p> <p>For the duration of the decommissioning and closure phase</p>
<p>Ambient Noise Levels</p>	<p>Nuisance experienced as a result of noise generated due to decommissioning operations</p> <p>Human health risks to be associated with expected excessive noise as a result</p>	<p>All site worker should wear the necessary PPE with reference to ear plugs, earmuffs etc;</p> <p>The contractor responsible for decommissioning operations shall provide all site workers with the necessary PPE when working in noisy environments;</p>	<p>Specialised demolition and decommissioning contractor</p> <p>HSO</p> <p>Site workers/Site personnel</p>	<p>During closure planning</p> <p>For the duration of the decommissioning and closure phase</p>

Aspect	Environmental risk or issue	Mitigation measure	Responsibility	Frequency of Action
Health and Safety	<p>decommissioning/closure activities</p> <p>Health and Safety risks posed to site workers and surrounding sensitive receptors as a result of close and/or decommissioning activities.</p>	<p>A Safety, Health and Environment Officer shall be appointed for the duration of decommissioning phase to oversee all health and safety aspects, and recommend measures where deemed necessary; and</p> <p>An Environmental Management Programme (EMPr) should be compiled prior to the commencement of decommissioning operations.</p> <p>All site personnel should wear the necessary PPE (safety helmets, boots, gloves, goggles, ear plugs etc.) when working on site during the operation of the proposed MRF;</p> <p>The contractor shall provide all construction workers with the necessary PPE during construction;</p> <p>A Health and Safety Officer (HSO) shall be appointed for the duration of the construction phase, to oversee all health and safety aspects, and recommend safety measures were deemed necessary.</p> <p>A hazardous items, including oils, Fuels, greases, chemicals, paints etc. should be stored in an appropriate manner on site, in a specific designated area, with secondary containment and adequately banded to contain at least 110% of the spilled substance;</p> <p>All waste items of a hazardous nature on site should be managed in an appropriate manner, according to the Department of Water Affairs and Forestry (DWAF) guideline document- <i>minimum requirements for the handling, classification and disposal of hazardous waste</i>,</p>	<p>Independent Environmental Entity</p> <p>Services</p> <p>Specialised demolition and decommissioning contractor</p> <p>HSO</p> <p>Site workers/Site personnel</p> <p>Independent Environmental Entity</p>	<p>During planning</p> <p>For the duration of the decommissioning and closure phase</p>

Aspect	Environmental risk or issue	Mitigation measure	Responsibility	Frequency of Action
		<p>Provision should be made for a spill response kit on site, and all hydrocarbon spills immediately remediated once occurred. N.N. Metals (Pty) Ltd should refer to the plan compiled for emergency incidents, with reference to the procedures followed for spills and leaks. All contaminated materials as a result of spills should be managed and disposed of in an appropriate manner; and</p> <p>All decommissioning activities should be performed under controlled conditions, by a specialised contractor. A risk assessment should be conducted prior to any work performed to inform closure methodologies etc;</p>		

7. EMPr Review

7.1 The Site supervisor is responsible for ensuring the work crew is complying with procedures, and for informing the work crew of any changes. The site supervisor is responsible for ensuring the work crew is aware of changes that may have been implemented by the Gauteng Department of Agriculture and Rural Development (GDARD);

7.2 If the contractor cannot comply with any of the activities as described above, they should inform the ECO with reasons within 7 working days.

Appendix I: Enlarged Figures

Figure 1: Locality Map

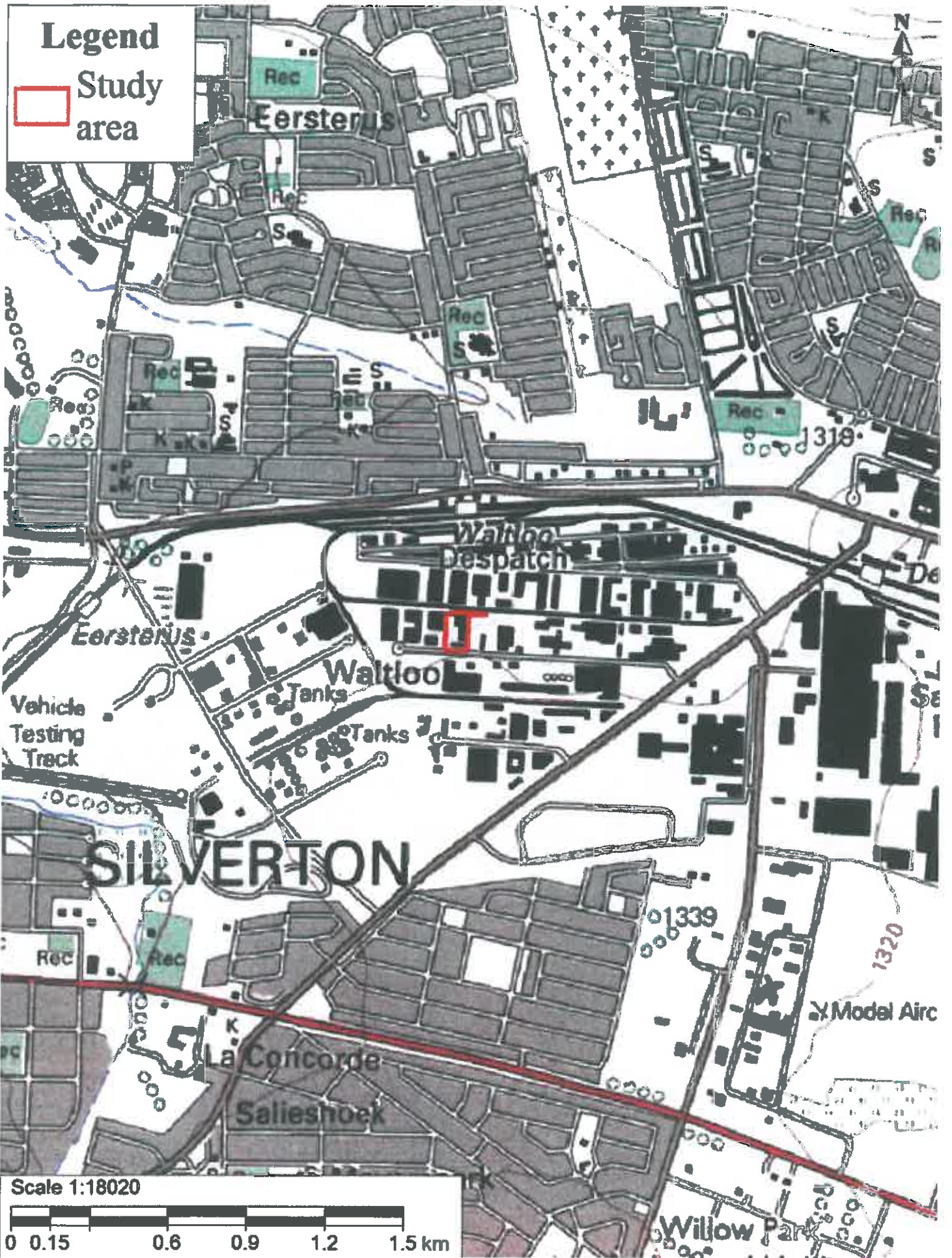


Figure 2: Aerial Map

Legend

 Study area



**Figure 3:
Regional Context Map**



**Figure 4:
Irreplaceable Sites Map**

Legend

Irreplaceable Sites

- 1stVegetation, RL invert hist loc, RL plant conf
- 1stVegetation, RL invert hist loc, RL plant conf, RL plant metapop
- 1stVegetation, RL invert hist loc, RL plant metapop
- 1stVegetation, RL plant conf, RL plant metapop
- Study area





Scale 1:20660

0 0.15 0.3 0.6 0.9 1.2 1.5 km

Figure 5: Ridges Map

Legend

-  Ridge
-  Study area

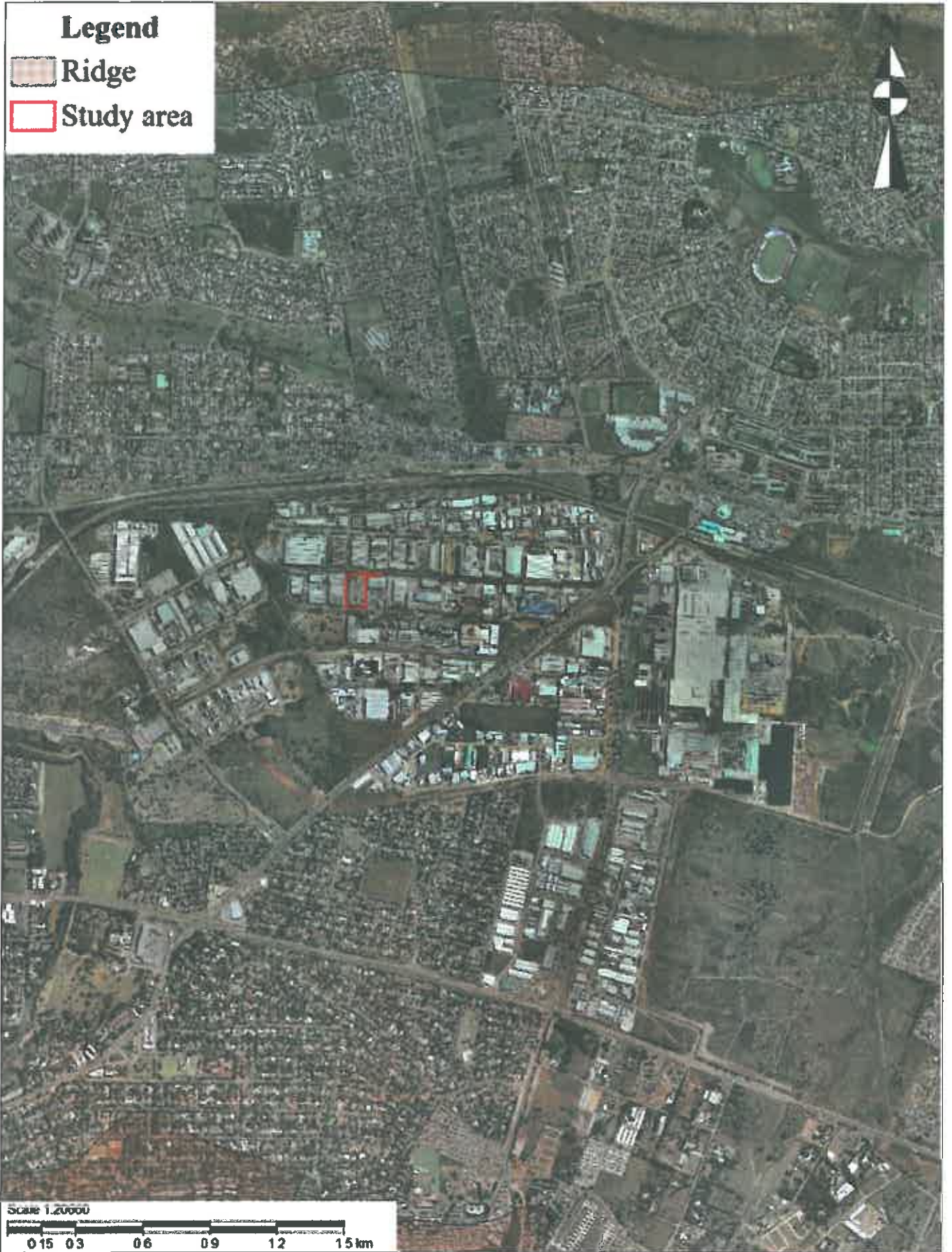


Figure 6: Hydrology Map

Legend

Rivers

 Non-Perennial River

 Perennial River

 Study area



**Figure 7:
Ecological Protection
Map**



**Figure 8:
Agricultural Protection
Map**



**Figure 9:
Simplified Geology Map**

Legend
SCHEMATIC SYMBOLS
□ PUBLIC AND BUSINESS PREMISES
□ Study area



Scale 1:2620
25 50 100 150 200 250 m

**Figure 10:
Regional Geology Map**

Legend Geology

- Shale
- Quartzite
- Arenite
- Andesite
- Dolerite
- Syenite

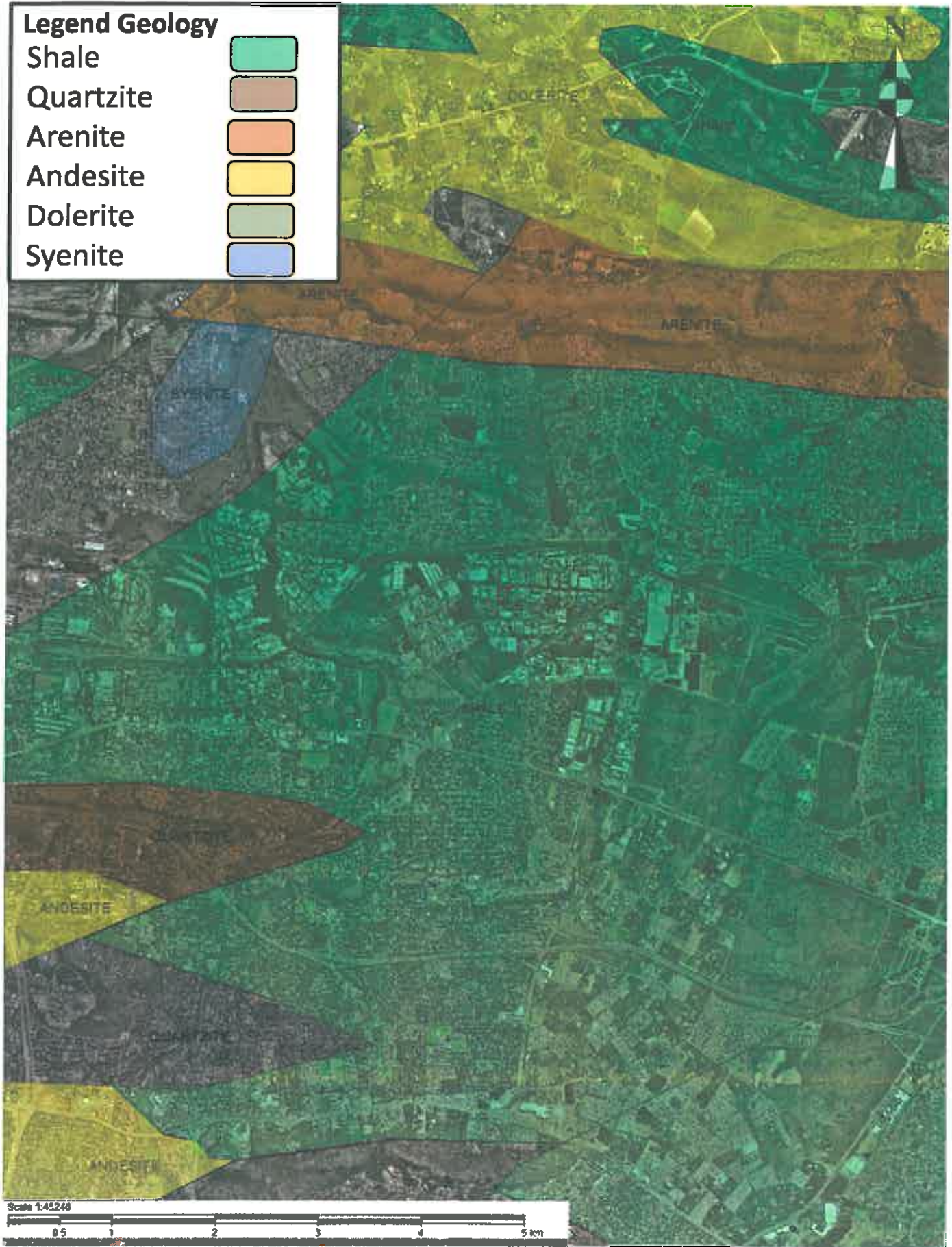
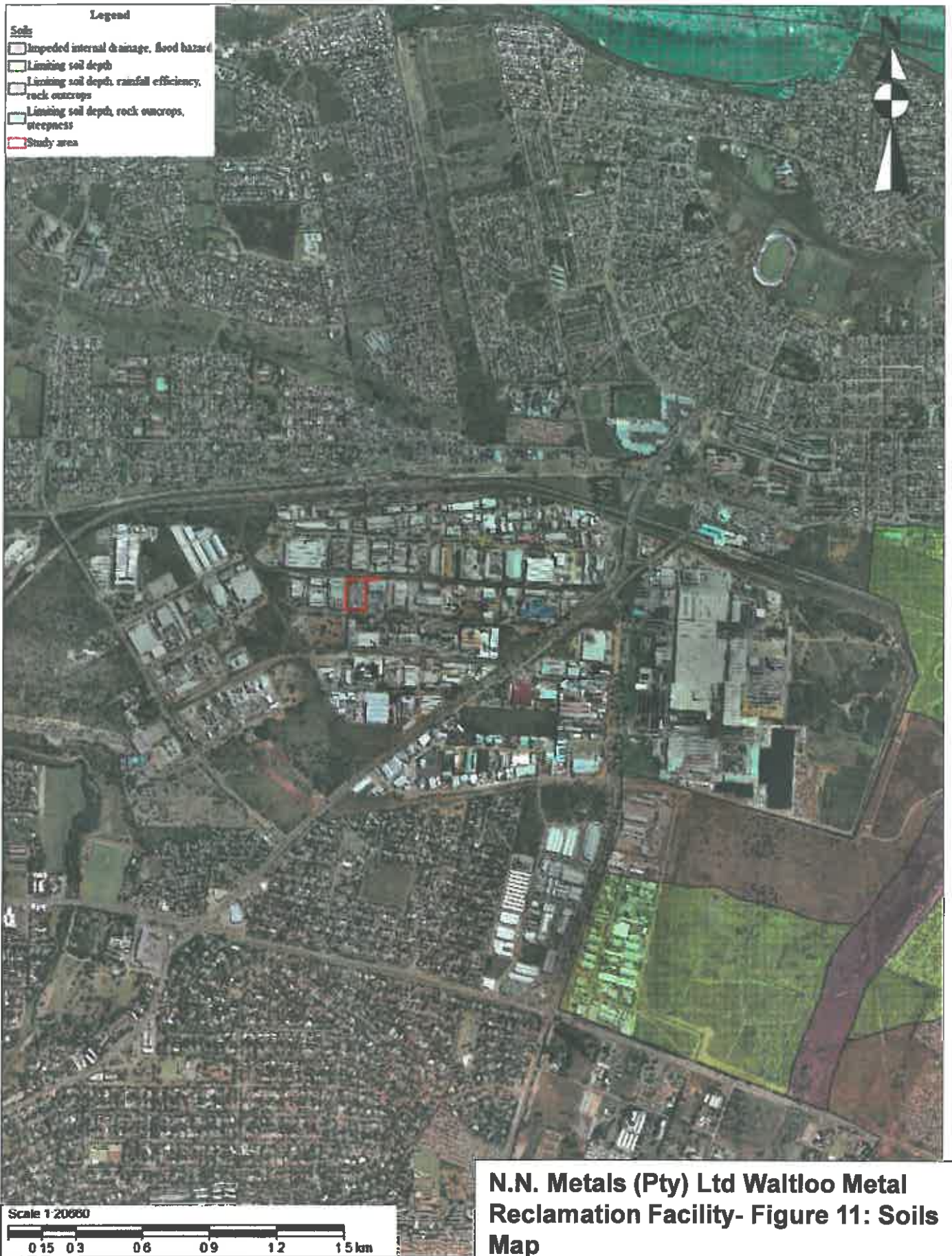
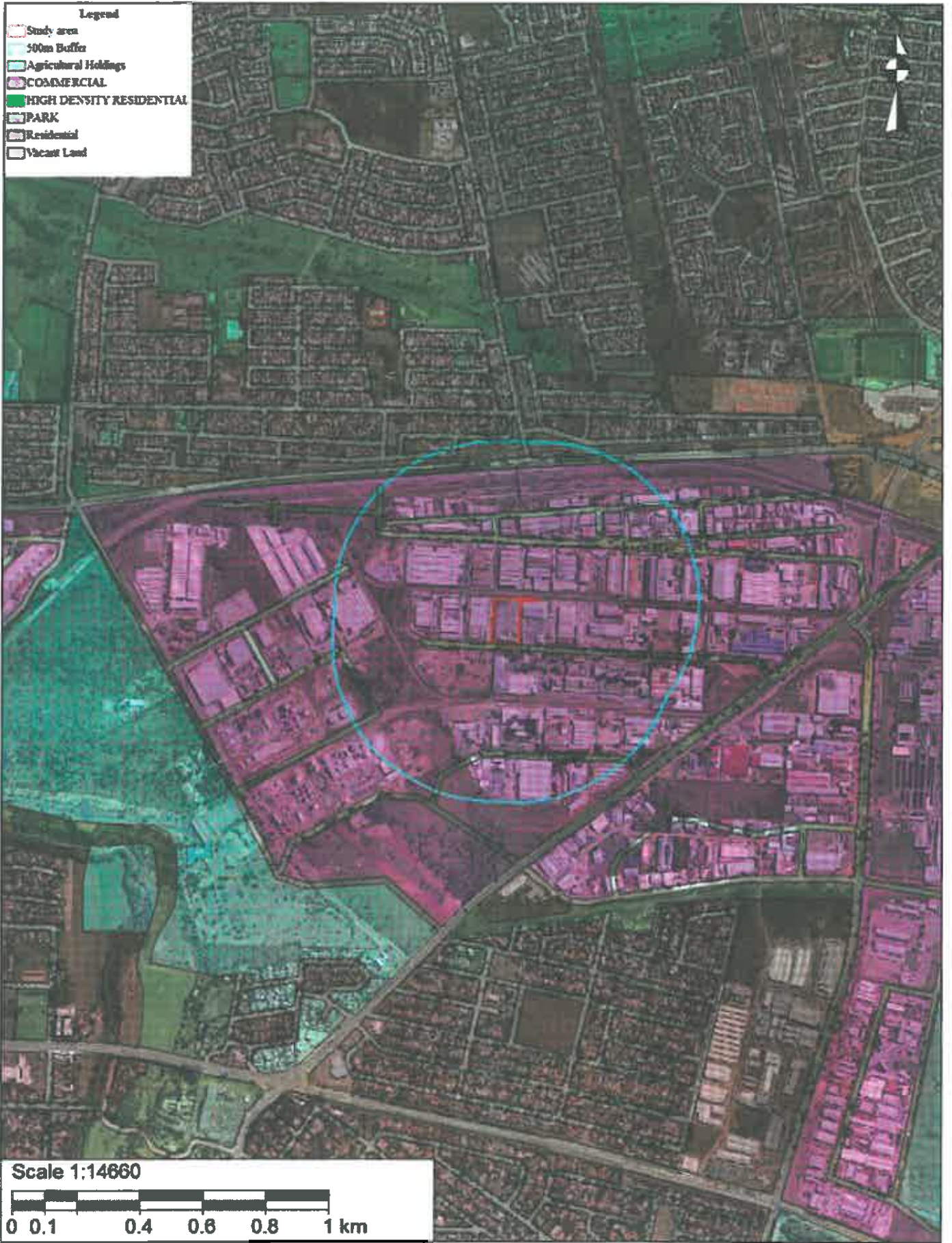


Figure 11: Soils Map



**Figure 12:
Surrounding land-use
map (Local Context)**



**Figure 13:
Surrounding land-use
map (Regional Context)**



Legend

Land Use	Roads	Vegetation
Recreation area	Track footpath	Cultivated land (arable)
Cemetery	Secondary road	Tree line
COMMERCIAL	State road	Study area
Vacant Land	On-off ramp	
Residential	National freeway	
PARK	Interchange	
Agriculture Holdings		
Golf driving range		

Scale 1:27660



**Figure 14:
Surrounding Facilities
Map**



-  Educational
-  Homecentre
-  Manufacturing
-  Auto Repair
-  Train Station
-  Sport Facilities
-  Government
-  Financial Services
-  Transport Services
-  Fuel Depot
-  Construction
-  Steel Construction

**Figure 15:
Surrounding Business
Entity Map**



LEGEND

- 1. Total Fuel Depot
Engen
BP
Caltex
Engen Waitloo
Rubica Carriers
- 2. Roofies Group
- 3. Cunningham Door creation
- 5. CHAPS Roof Trusses and Building Supplies
Homes Trailers and Bodies
- 6. East Bail bakeries

- 7. Premier Foods Pretoria Maize Mill
- 8. Tricom Structures
- 9. Wellco Depot Tainwane Metropolitan Municipality Electricity Department
- 10. Bostal South Africa
- 11. Neka Plastics: Plastic Recycling
Neddi Recycling
Mankgus Furnishers
Ranco Enterprises
More Plastics: Plastic Recycling
C.N. Chickens
- 12. Abacus Windows and Doors
Linear Building Projects

- 13. Disabell Trade Express
- 14. Everest Refrigeration
Windows and glass Tinting
Winter Solutions! Rob's Spices
- 15. Bio Box
Dawson and Fraser
Cloudlands Timber Products
Ka Velo Construction
D. F. Piping and Construction
- 16. Lafarge Aggregats and ReadyMix
- 17. Aluka Steel Construction (PTY)Ltd
- 18. Whata Plan: recycling Facility

Appendix J: Facility Information

Process overview: Metal Reclamation Facility

Process overview of the proposed Metal Reclamation Facility

Please refer to Annexure F for a diagrammatical illustration of the process as described below:

Input Material:

Ferrous and Non-ferrous scrap metal is supplied by a number of external suppliers and vendors, delivered to the operation by truck and/or bakkie loads. (Please note that an external supplier will specifically deliver either non-ferrous metals or ferrous metals, or both, but however separated, thus creating two waste streams). The scrap metal received is visually inspected prior to being weighed, to remove any other waste material that will not be recycled as part of the process. Such materials are designated as unwanted, and are disposed by the service provider and/or vendor which supplied the scrap metal in the first instance. The scrap metal is weighed at a weighbridge (situated at the entrance of the site) or a platform/bench scale for small weight items not delivered in truck and/or bakkie loads.

Ferrous scrap metal waste stream:

Ferrous metals are able to be recycled, with steel being the most recycled material in the world. Ferrous metals contain an appreciable percentage of iron and the addition of carbon and other substances creates steel. The most commonly recycled items are containers, cans, structural steel, parts of motor vehicles, household appliances etc. Ferrous metals are once weighed, graded and sorted into (a) steel, (b) sub-grade material and (c) cast iron and routed to different stockpiles at the facility. Please note that in many instances an external supplier may deliver ferrous scrap metals as steel, or sub-grade material or cast iron prior to being weighed. The stockpiles of steel and sub-grade material are in addition visually inspected to separate and remove any (1) non-ferrous metals or (2) other waste material which remained behind in the graded stockpiles.

(a) Ferrous scrap metal waste stream: Steel Material

Once separated from the sub-grade material, the dimensions and sizes of the steel are reduced with the use of a cutting torch and/or cropper. The steel material is essentially reduced to enable the enhanced handling, loading and transportation thereof. The steel once reduced, are stockpiled as recycled material, collected by trucks and transported to clients.

(b) Ferrous scrap metal waste stream: Sub-grade material

The sub-grade material is either directly collected from the stockpiles by trucks or reduced through the use of a bailing machine.

(c) Ferrous scrap metal waste stream: Cast Iron

The cast iron is directly collected from the stockpiles by trucks and transported to clients.

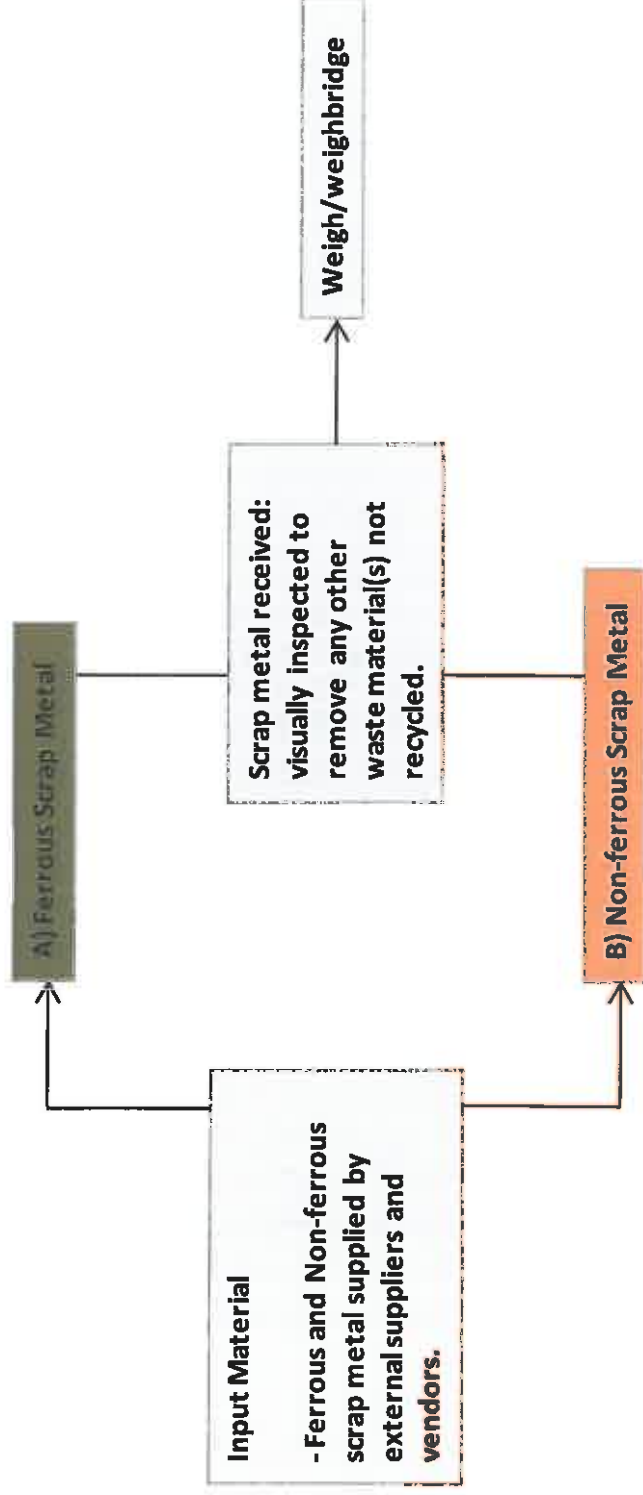
Non-ferrous scrap metal waste stream:

A non-ferrous metal is any metal, including alloys, that does not contain iron in appreciable amounts. Non-ferrous metals are generally more expensive due to its desirable properties such as low weight, higher conductivity, non-magnetic property, or resistance to corrosion. Some important non-ferrous metals include aluminium, copper and the alloy brass, lead, nickel, tin and titanium.

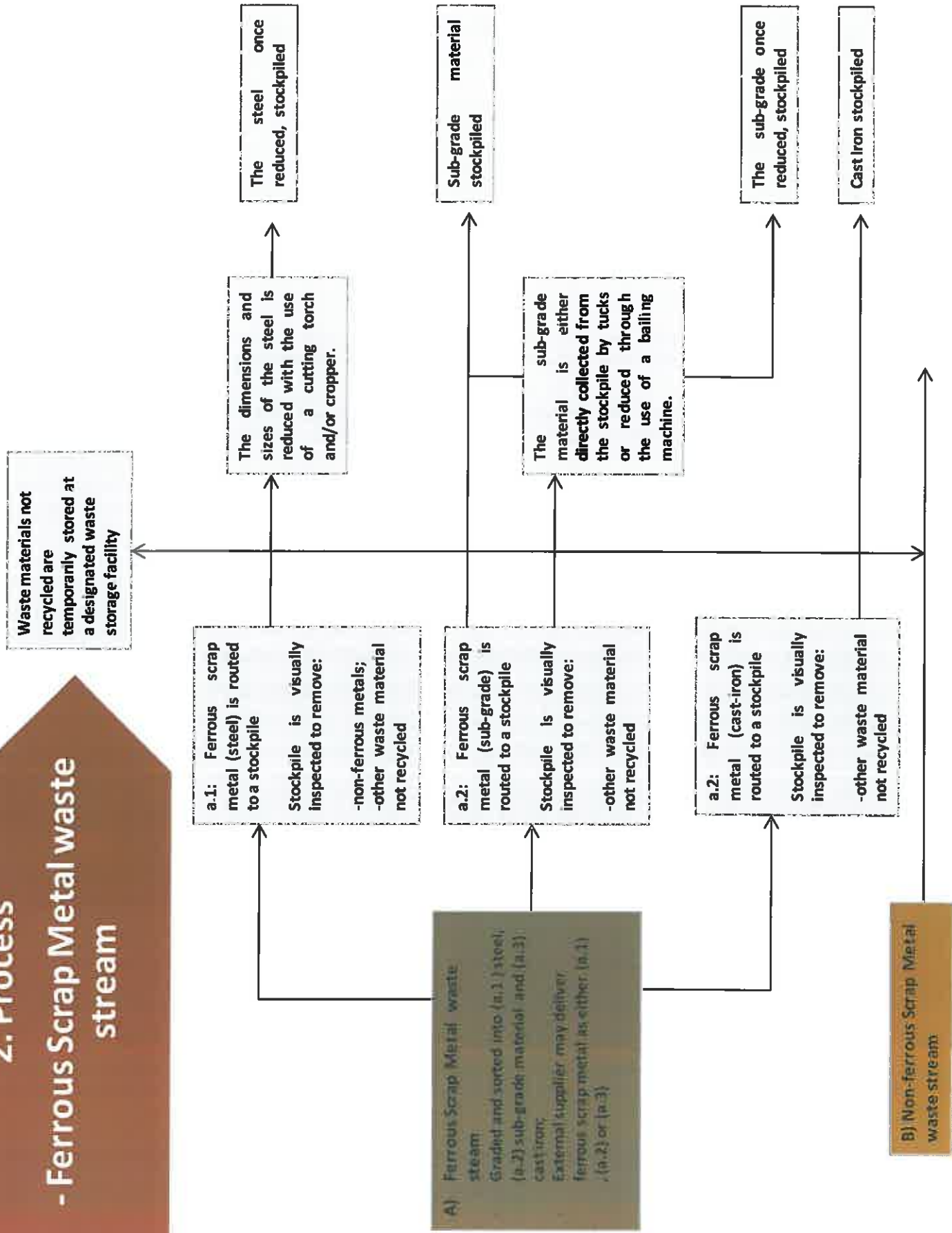
Non-ferrous metals are supplied by external suppliers and vendors. Non-ferrous metals, once weighed are visually sorted, and graded (in different classes) at an enclosed waste management facility. The non-ferrous scrap metal is as with the ferrous metal waste stream visually inspected to remove other waste material that will not be recycled in the process. Such materials are temporary stored on site at a designated waste storage area and/or facility until disposed of by a service provider. The non-ferrous metals are once sorted and graded, temporarily stored at the enclosed waste management facility until collected by trucks and transported to clients. Electric scrap cable will be fed into a granulating plant whereby the cable will be sorted, reduced and then granulated. All waste material will be separated and disposed of and sold accordingly.

1. Inputs

- Input material received;
- Input material weighed;



2. Process - Ferrous Scrap Metal waste stream



3. Process

- Non-ferrous Scrap Metal waste stream

8) Non-ferrous Scrap Metal waste stream
Non-ferrous metals are supplied by external suppliers, vendors and weighed

The non-ferrous metals, once weighed are visually inspected and sorted in an enclosed waste management facility on site to create the following non-ferrous metal waste streams:

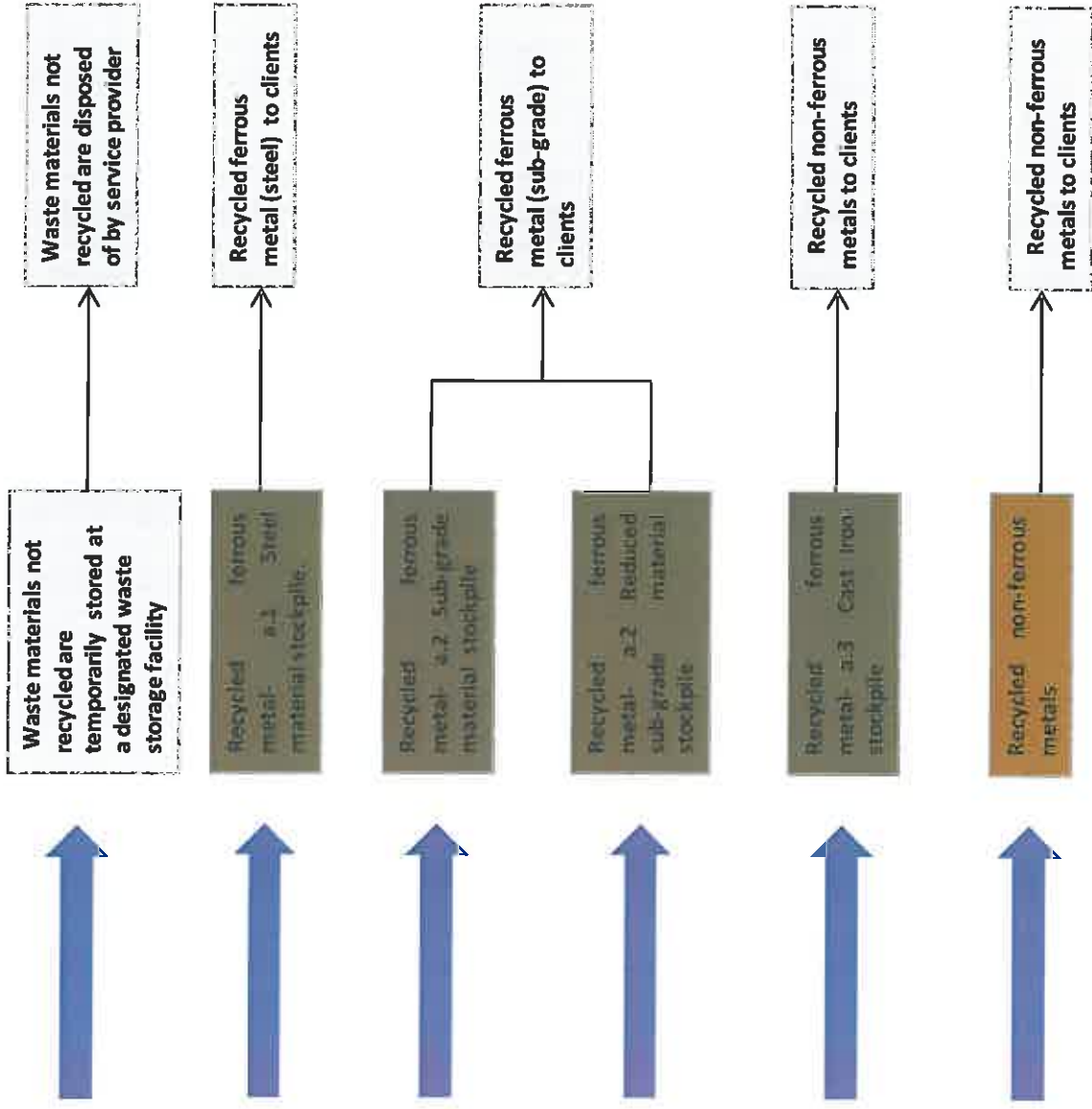
- Aluminium;
- Brass;
- Copper;
- Lead;
- Stainless steel etc.

The non-ferrous scrap metal is visually inspected to remove waste material that will not be recycled in the process.

Waste materials not recycled are temporarily stored at a designated waste storage facility

The non-ferrous metals once visually inspected and sorted, are temporarily stored at the enclosed waste management facility until collected by trucks and transported to clients.

3. Outputs



Process overview: Eldan Recycling Plant

Electrical Cable Recycling Plant

Used Electrical Cable

Electrical cables usually have copper or aluminium conductors. The insulation is made of plastic, rubber or paper. Power cables may have steel or lead armouring which can be processed in our cable stripper and then process further in an Eldan cable recycling plant.

The dry cable types to be processed in an Eldan Cable Recycling Plant are:

- Hair-wire
- Harness wire
- Communication wire
- Installation wire
- Power cables with copper or aluminium conductors
- Copper wire
- ACSR-wire
- Mixed household wire
- Etc.

After granulation and separation the metal fraction will have a purity of up to 99.5%

Underground Cable

Underground cables are heavy armouring cables consisting of a considerable amount of grease, plastics, paper and naturally lead and copper. What makes processing of underground cables so complex is the substantial amount of grease making the material stick together.

Cable Strippers

Application

- The Cable Strippers are suitable for most cable types within the size range, including:
- Plastic, paper and textile insulated cables.
- Rubber insulated cables including butile rubber.
- Lead armoured cables.
- Steel armoured cables (with some types it may be necessary to strip the PVC and allow the steel to fall free).

Supper Chopper

Large triangular knives are used to chop the cable into smaller pieces.

Raspers

The Raspers is used for cutting and preparing cables for granulation.



Silos

For optimized operation and enhanced throughput

Between Super Chopper and Rasper

- 5 m³ Silo with slatted steel conveyor belt
- Heavy rotating floor helps control the feed rate.
- Balances the output from the Super Chopper to the input rate of the Rasper.



Fine Granulators

Fine Granulators are ideally suited for the modern world of today's cable scrap processing. They have open rotor design provides natural internal airflow keeping the cutting chamber and the material cool.

The individual and adjustable flying and static knives are used to granulate the copper cable pieces.



Separation Tables

The Separation Tables are key machines in Cable and Metal Recycling Systems. The Separation Tables will by well balanced combinations of air flow and oscillating movements produce an effective separation of metal and insulation.

Main features:

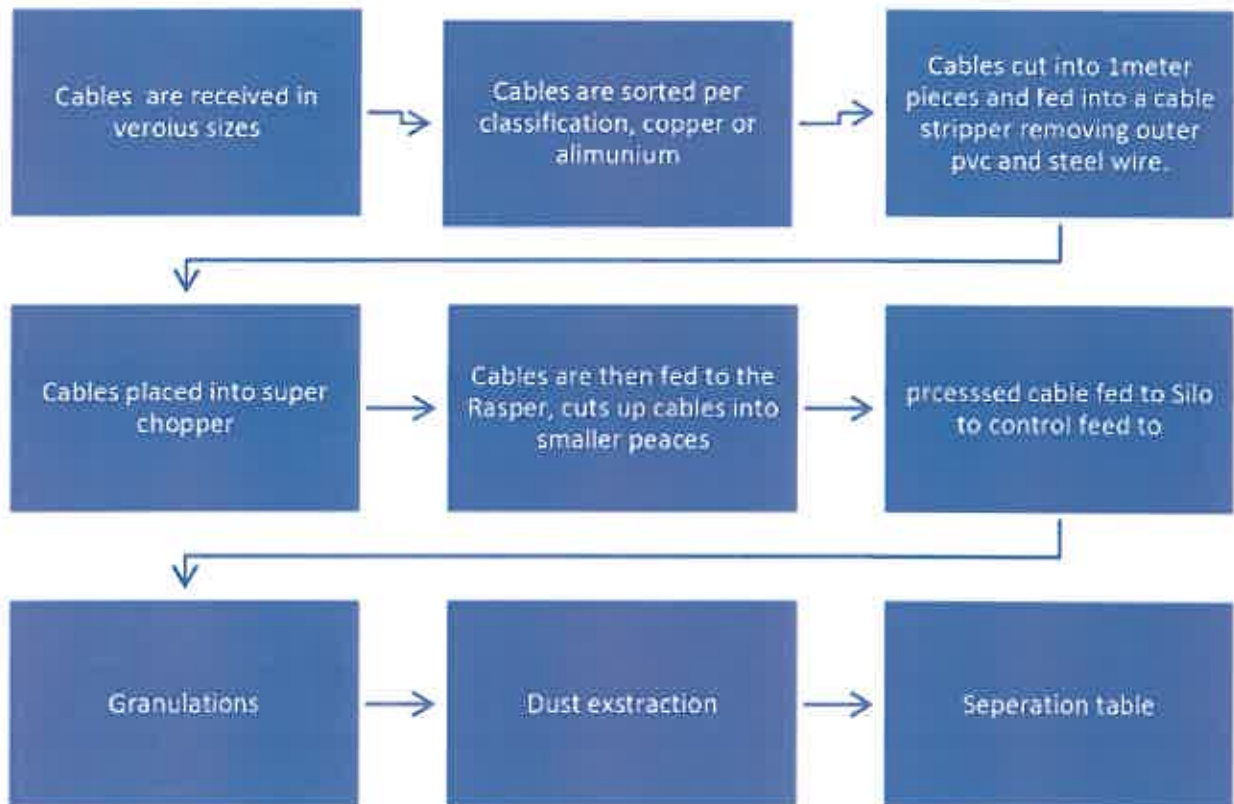
- Almost 100% clean metal fraction
- Easily accessible adjustment controls enables adjustment during actual operation.
- Air flow, oscillation speed, length of stroke and table inclination are infinitely variable.
- The final separation and direction of the flow is made by adjustable flaps on the front edge of the Table and middling's are easily taken out.



The output from the Separation Table consists of four fractions:

- Dust: taken via the dust suction system.
- Metal fraction: taken from the top of the incline.

- **Plastic fraction:** taken from the bottom of the incline.
- **Middling fraction:** taken from the middle of the incline. This fraction is taken back for reprocessing.



Operational Plan (N.N. Metals)

N. N. METALS (Pty) Ltd

DEALERS IN FERROUS & NON FERROUS SCRAP METALS

(1996/02492/07)

TEL: (012) 804 9676/9390

FAX: (012) 804 9873

KOEDOESPOORT WEG

KOEDOESPOORT

P O BOX 139

LA MONTAGNE

0184

Process overview of the proposed Metal Reclamation Facility

Input Material:

Ferrous and Non-ferrous scrap metal is supplied by a number of external suppliers and vendors, delivered to the operation by truck and/or bakkie loads. (Please note that an external supplier will specifically deliver either non-ferrous metals or ferrous metals, or both, but however separated, thus creating two waste streams). The scrap metal received is visually inspected prior to being weighed, to remove any other waste material that will not be recycled as part of the process. Such materials are designated as unwanted, and are disposed by the service provider and/or vendor which supplied the scrap metal in the first instance. The scrap metal is weighed at a weighbridge (situated at the entrance of the site) or a platform/bench scale for small weight items not delivered in truck and/or bakkie loads.

Ferrous scrap metal waste stream:

Ferrous metals are able to be recycled, with steel being the most recycled material in the world. Ferrous metals contain an appreciable percentage of iron and the addition of carbon and other substances creates steel. The most commonly recycled items are containers, cans, structural steel, parts of motor vehicles, household appliances etc. Ferrous metals are once weighed, graded and sorted into (a) steel, (b) sub-grade material and (c) cast iron and routed to different stockpiles at the facility. Please note that in many instances an external supplier may deliver ferrous scrap metals as steel, or sub-grade material or cast iron prior to being weighed. The stockpiles of steel and sub-grade material are in addition visually inspected to separate and remove any (1) non-ferrous metals or (2) other waste material which remained behind in the graded stockpiles.

(a) Ferrous scrap metal waste stream: Steel Material-

Once separated from the sub-grade material, the dimensions and sizes of the steel are reduced with the use of a cutting torch and/or cropper. The steel material is essentially reduced to enable the enhanced handling, loading and transportation thereof. The steel once reduced, are stockpiled as recycled material, collected by trucks and transported to clients.

(b) Ferrous scrap metal waste stream: Sub-grade material-

The sub-grade material is either directly collected from the stockpiles by trucks or reduced through the use of a bailing machine.

(c) Ferrous scrap metal waste stream: Cast Iron-

The cast iron is directly collected from the stockpiles by trucks and transported to clients.

Non-ferrous scrap metal waste stream:

A non-ferrous metal is any metal, including alloys, that does not contain iron in appreciable amounts. Non-ferrous metals are generally more expensive due to its desirable properties such as low weight, higher conductivity, non-magnetic property, or resistance to corrosion. Some important non-ferrous metals include aluminium, copper and the alloy brass, lead, nickel, tin and titanium.

Non-ferrous metals are supplied by external suppliers and vendors. Non-ferrous metals, once weighed are visually sorted, and graded (in different classes) at an enclosed waste management facility. The non-ferrous scrap metal is as with the ferrous metal waste stream visually inspected to remove other waste material that will not be recycled in the process. Such materials are temporary stored on site at a designated waste storage area and/or facility until disposed of by a service provider. The non-ferrous metals are once sorted and graded, temporarily stored at the enclosed waste management facility until collected by trucks and transported to clients.

Eldan specialised electrical cable stripping plant.

Electrical cables usually have copper or aluminium conductors. The insulation is made of plastic, rubber or paper. Power cables may have steel or lead armouring which can be processed in our cable stripper and then process further in an Eldan cable recycling plant.

Electrical cables consist of the following; Hair-wire, Harness wire, Communication wire, Installation wire, Power cables with copper or aluminium conductors, Copper wire, Mixed household wire.

Electrical cables are sorted into various categories and cut into meter pieced by a hydraulic cropper or electrical grinder. Smaller cable is loaded into the supper-chopper; large triangular knives are used to chop the

cable into smaller pieces. The smaller pieces are then taken via conveyor belt to the Rasps the rasper is used for cutting and preparing cables for granulation.

The smaller pieces are then fed by a conveyor belt to the silos this balances the output from the rasper to the input rate of the fine granulator. Fine Granulators are ideally suited for the modern world of today's cable scrap processing. The individual and adjustable flying and static knives are used to granulate the copper cable pieces.

The Separation Tables are key machines in Cable and Metal Recycling Systems. The Separation Tables will be well balanced combinations of air flow and oscillating movements The output from the Separation Table consists of four fractions:

- Dust: taken via the dust suction system.
- Metal fraction: taken from the top of the incline.
- Plastic fraction: taken from the bottom of the incline.
- Middling fraction: taken from the middle of the incline. This fraction is taken back for reprocessing produce an effective separation of metal and insulation.

Clean copper, pvc and the steel wire armour wire is sold are stored and sold to various clients.

**Closure and
Decommissioning Plan
(N.N. Metals)**

Closure and Decommissioning Plan

The purpose of the Conceptual Closure Plan is to describe the general objectives for the land use at the NN Metals operations and the planning processes leading to the final Closure Plan. The Conceptual Closure Plan will be updated on an annual basis and will be submitted to the Authorities with the revised plan for rehabilitation. The Closure Plan is based on the principle that the EMP must comply with best practice; the closure planning and management actions must comply with the applicable legislation; a Final Closure.

The bulk of the impacts during this phase will have immediate effects (e.g. noise, dust and possible pollution). If the site is monitored on a continual basis during the decommissioning phase, it is possible to identify these impacts as they occur. These impacts can then be mitigated through the contingency plans identified in the planning phase, together with a commitment to sound environmental management from NN Metals.

By taking pro-active measures during the planning and decommissioning phases, potential environmental impacts emanating post decommissioning will be minimized. This, in turn, will minimize the risk and reduce the monitoring effort, but it does not make monitoring obsolete.

Aspects	Impacts	Management/Mitigations	Monitoring	Time Frame	Responsible
Scrap Metal	Pollution	All scrap metal and possible pollution must be cleared off site.	Closure Audit	Decommissioning phase	NN Metals
Waste management	Pollution	The yard is to be cleared of all general waste material, and or related waste streams and other pollution that may have been present during operations. Waste skips to removed from site.	Closure Audit	Decommissioning phase	NN Metals
Equipment	Pollution	All equipment to be removed from site. All hydrocarbon spills to be cleaned.	Closure Audit	Decommissioning phase	NN Metals
Plant		All plant to be disconnected from power supply. Once the plant has been removed from the site, the paved area under roof will be cleaned by collecting all waste and recycling debris.	Closure Audit	Decommissioning phase	NN Metals
Fuel Storage	Pollution	The site includes a underground diesel tank. The decommissioning of this infrastructure will be dealt with a separate basic Assessment process under taken by the Total fuels.	Closure Audit	Decommissioning phase	Total Fuels NN Metals

Emergency Plan (N.N. Metals)

NN Metals (Pty) Ltd

EMERGENCY PLAN

300 MUNDT STREET WALTLOO



INDEX

1	Emergency Telephone Numbers	
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4	Spills and Leaks	
5	Bomb Threats	
6	Robbery	
7	Serious injuries	
8	Property Damage	
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1. EMERGENCY TELEPHONE NUMBERS

In case of any type of emergency the person who discovered the emergency will inform the senior person on duty/site manager who will notify the local emergency services immediately.

The immediate senior person will know exactly who is the relevant next person to be informed of the incident. The hierarchy of information sequence will be as following:

Local Emergency Services No: 10 177

Local Police Services No: 10 111

Tshwane Fire Department: 012 310 6400 or 012 310 6300

Site Manager No: 083 442 0362

Alternative Manager No: 083 289 6975

Security Manager No: 082 956 9357

Safety Manager: 083 228 6483

Eskom: 0860 037 566

Tshwane Electricity: 080 111 1556

Tshwane Water: 012 358 2111

Spill Response: 083 228 6483

Air Liquide No: 011 389 7053



2. Fire/Explosion

If a fire/explosion occurs:

- Make alarm
- Call fire, police and ambulance services
- Shut down emergency button
- If safe to do so try to distinguish the fire
- Move all staff and customers to a safe location
- Prevent all access to the site, except emergency vehicles
- Inform the franchisee/owner and record the incident in the Incident Report Book
- **NB. Never use water to distinguish electric fires.**

3. LPG Leak

If a site has the right to keep LPG cylinders on site, and a leak from the valve occurs:

- Immediately shut down all pumps and call the local fire department – give cylinder type and size
- Request everyone for evacuation of the immediate area
- Customers not to start their vehicles
- Turn off power at main switchboard
- If at night leave canopy lights on
- If possible remove any other ignition sources
- Stay away from any gas cloud
- Wear gloves to protect your hands
- Apply water to leak to disperse gas – a wet towel placed over the leak may seal by freezing
- Turnoff cylinder valve if possible
- A portable cylinder may be carried to a safe, outdoor location; keep cylinder upright so that no liquid is allowed to escape
- Continue applying water spray to leaking gas
- Record details of incident in the Incident Report Book

If LPG fire starts immediately shut down all pumps and call fire brigade – give cylinder type and size;

- Evacuate immediate area – inform customers.
- Apply water spray to cylinder and anything else the flame is contacting – only extinguish the fire if the leak can be stopped immediately.
- Turnoff cylinder valve if possible

[Type the company name]

NN Metals (Pty) Ltd

4. Spills and Leaks

A serious spill is where the quantity of fuel involved is in excess of **150 litres** and may be the result of damage to dispensing equipment or tanker deliveries;

- Immediately close down all pumps
- Isolate source of leak if possible
- Remove all sources of ignition
- Request customers not to start their vehicles as sparks may ignite the fuel
- Request all passengers to leave their vehicles and move away from the spill area
- Prevent spill from spreading or entering drains by using sand to dam or divert or soak up the spill by using absorbent material (spill kit) e.g. Drizit.
- Provide first aid to anybody who has been splashed with fuel – ensure contaminated clothing is saturated with water, removed and the person is given something else to wear
- Notify the site manager/franchisee/owner immediately
- Advise the depot if a fuel delivery tanker is involved
- Record details of the incident on the Incident Report Book
- Advise relevant authorities about incident
- Ensure any contaminated material is disposed of in accordance with local municipal requirements

5. Bomb Threats

- Always take a bomb threat seriously
- If the threat is received via phone, remain calm, do not interrupt the caller, obtain as much information as possible; where exactly is it? What does it look like? When is due to go off? Why is he/she doing this?
- Make as many written notes as possible and especially the time of call
- Try to note the manner or accent of the caller's voice, background sounds and if the caller is familiar with your service station
- Prevent anyone approaching or disturbing the device
- Notify the police and fire services
- Close down and evacuate the site, prevent access other than by the emergency services and with the assistance of the police, notify the occupants of adjacent premises. Only permit access when the emergency services give the all
- Call the site manager/franchisee at the first opportunity
- Record details of incident in the Bomb-Threat-Form

6. ROBBERY

If you see anything happening which makes you suspect a robbery is about to happen, make sure that every member of the staff is safe.

Call the police, lock the doors if possible and stay out of sight. Never put yourself or anyone else in danger by your actions.

[Type the company name] |

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During the robbery:

- Keep calm
- Listen carefully to all instructions you given and co-operate fully with the robber's demands.
- Keep you hands in view all the time.
- Do not resist – hand over the cash. By regularly putting takings into the drop safe any losses will be minimised. If unable to meet the demands made, tell robber/s why. Warn them of any unexpected event that may occur.
- Try to remember any important details about the robber/s..... their appearance, type and colour vehicle and direction of escape.

After the robbery

- Activate the alarm
- Ask any customers in the shop to stay until the police arrive so that they have witnesses. Lock the door.
- Immediately contact the police. Give the police the full information regarding what happened and where is the scene. Give the police the description of the robber/s, the vehicle used and, if possible, the direction in which they headed.
- Do not disturb the area or anything that may have been handled by the robber/s.
- Inform the site manager/dealer/franchisee.
- Complete a Suspect Identification Report aid to the police. If one is not is not available, writ down as detailed description as you can. It only takes a few minutes to forget important points
- Record this incident in the Incident Report Book and give to site management

7. SERIOUS INJURIES

When a person is injured/medically ill on site, the following need to be taken care of;

- Telephone the ambulance services.
- Telephone the police.
- Administer First Aid as appropriate.

Remember to put on disposable protective gloves from the First Aid Kit before giving first aid to an injured.

- Ensure the injured/medically ill person is safe from further injury. Only move a severely injured or unconscious person if they are in further danger.
- If there is only one member of staff on site remaining on site, close the site down. Inform the franchisee/dealer.
- On arrival of emergency services, give them details of the incident.
- Inform the site management and the Health and Safety Representative of the incident.
- Record details of the incident on the Incident Report Book and give it to the franchisee/dealer/site manager.

[Type the company name] |

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First Aid

Employees must know who is in charge of First Aid and all injuries and accidents, no matter how minor must be reported immediately.

8. PROPERTY DAMAGE

If damage, whether accidental, malicious or through natural causes, occurs:

- Isolate electricity supply to the damaged area.
- Check damaged area for product leaks. If there are leaks, press the emergency stop button.
- If there has been injury, offer first aid/telephone ambulance services.
- Depending on the nature of the damage, contact fire service or police.
- Prevent access to the affected area except by the emergency services.
- If a vehicle or individual caused the damage, obtain details such as name, address, vehicle registration, name of insurer. **Do not admit liability.**
- Inform franchisee/dealer/site manager.
- Franchisee/Dealer is to advise the insurance company of the incident.
- Record incident in the Incident Report Book and give it to franchisee/dealer/site manager.

9. EMERGENCY DRILLS AND EXERCISES

Emergency exercises should be conducted for each plan according to documented scheduled frequency e.g. monthly, quarterly, six monthly or annually.

During drill or exercise, the following should be evaluated and reported:

- The adequacy of plans and procedures,
- The effectiveness of emergency training and personnel efficiency.
- The adequacy (quality and quantity) of existing emergency facilities, supplies and equipment.
- The need for increased co-ordination with off-site emergency response agencies.
- Whether the frequency of the drill or exercise is adequate.
- Recommendations, corrective actions and a schedule for implementation.

.....
Approved by Local Authority

.....
Date

[Type the company name]

NN Metals (Pty) Ltd

EMPr (N.N. Metals)

N. N. METALS (Pty) Ltd

DEALERS IN FERROUS & NON FERROUS SCRAP METALS

(1996/02492/07)

TEL: (012) 804 9676/9390

FAX: (012) 804 9873

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Aspect	Impact	Management / mitigation	Monitoring mechanism	Time Frame	Responsible party
Waste Management	Environmental pollution and potential health risks from solid waste	Any solid waste that is not taken off site as part of the metal recovery or recycling process will be stored in an approved area in skip containers for collection and disposal at The Waste Group	Operational audit	Operational Phase	NN Metals
		Disposal of solid waste shall be at an appropriately licensed landfill facility.	Operational audit	Operational Phase	NN Metals
		No waste shall be burned on site nor at the approved solid waste disposal site.	Operational audit	Operational phase	NN Metals
	Hazardous waste	Hazardous waste such as oil shall be disposed of at an appropriately licensed hazardous waste site, or through a registered hazardous waste management company. Special care shall be taken to avoid spillage of hazardous products.	Operational audit	Operational phase	NN Metals
		All hazardous waste shall be removed from the site and adequately disposed of. Disposal certificates shall be obtained from the relevant waste contractors and copies of these shall be retained by NN Metals.	Operational audit	Operational phase	NN Metals
	Hazardous effluent	All potentially hazardous effluent (oil, wet paint, gas, battery acid etc) will not be accepted on site. Any item of scrap metal found to contain or possibly contain hazardous properties will be removed and placed in a designated quarantine area, to be disposed of at a registered hazardous landfill site through a registered licensed waste management company such as the	Operational audit	Operational phase	NN Metals

		Enviroserv waste management site at Holfontein. Disposal certificates shall be obtained from the relevant waste contractors and copies of these shall be retained by NN Metals			
	Recycling	Wherever possible, materials used or generated during operation shall be recycled or reused.	Operational audit	Operational phase	NN Metals
Noise Control	Noise Pollution	The contractor shall endeavor to keep noise and vibration generating activities to a minimum. Noisy operational activities that could cause a major disturbance shall only be conducted during daylight working hours (6am – 5pm).	Operational audit	Operational phase	NN Metals
		All construction vehicles and machinery used on site shall be kept in good repair to prevent unnecessary noise	Operational audit	Operational phase	NN Metals
Health and safety	Health and safety related incidents	All the necessary equipment required for the safe use and handling of scrap metal and related material shall be provided by NN Metals to be used and worn by the staff at all times during operation.	Operational audit	Operational phase	NN Metals

Directors: P.C. Human, P.J.J. Human

Security and Access Aspects (N.N. Metals)

N. N. METALS (Pty) Ltd

DEALERS IN FERROUS & NON FERROUS SCRAP METALS

(1996/02492/07)

TEL: (012) 804 9676/9390

KOEDOESPOORT WEG

P O BOX 139

FAX: (012) 804 9873

KOEDOESPOORT

LA MONTAGNE

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SECURITY AND ACCESS ASPECTS OF THE SITE

In addition to the duties being performed by the Security Officers at the site, the following processes are implemented to ensure safety and security at the sites:

Security Officers will be in contact with a control room via radio and or panic button from where emergencies and operations will be managed.

Security Officers will report to the control room every 30 minutes. This ensures that the control room personnel are informed of the situation on site at all times.

The control room issues a "password" every night; these are used to ensure that "unauthorized" persons do not report to our control room, e.g. during a robbery where the guards are tied up.

Security Officer's report to Shift Managers which is on duty 24 hours a day.

Shift Managers visits sites during their shift period, at irregular intervals especially during high risk times {Nights, month ends}. Thus ensuring visibility at your site as well as enforcing of our disciplinary code.

Emergency Procedure

Aspects	Impacts	Management/Mitigations	Monitoring	Time Frame	Responsible
Site Administration	Security	OB book to be kept on site all incidents or actions to be documented	Security Audit	Operational phase	NN Metals
Safety and Security Procedures	Security	A Site operating procedure is implemented these procedures are drawn up in conjunction with emergency procedure.	Security Audit	Operational phase	NN Metals
Access control	Security	Access control is the answer to a wide range of threats to your security, but it is only one aspect of the security provisions you should consider. By integrating access control with other security systems, it is possible to greatly increase the level of protection provided. Access control systems can be intelligently linked to other systems. All visitors to sign in	Security Audit	Operational phase	NN Metals

		before entering the site.			
Incoming Materials Identifications	Security	All incoming materials to be inspected and identified. All potentially hazardous (oil, wet paint, gas, battery acid etc) will not be accepted on site	Security Audit	Operational phase	NN Metals

Directors: P.C. Human, P.J.J. Human

Certificate of Registration (GWIS)



CERTIFICATE OF REGISTRATION

This is to certify that

NN Metals Watloo Pty Ltd

Has been registered as a

Waste Treatment Facility

**With the Gauteng Department of Agriculture and Rural
Development and has been issued with the following
registration number for use when reporting to the
Gauteng Waste Information System.**

GPF-00-786

Date of Registration: 27 July 2012

Date of Expiry: 27 July 2014

**Engineering Solutions
proposed by N.N. Metals**

N. N. METALS (Pty) Ltd

DEALERS IN FERROUS & NON FERROUS SCRAP METALS

(1996/02492/07)

TEL: (012) 804 9676/9390

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KOEDOESPOORT

LA MONTAGNE

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Date 9 October 2012

Attention: Niel Brink

As requested please find our formal response to the Tricom Structures Participation In Environmental Assessment – Proposed Metal Recycling Facility (NN Metals) Waitloo.

Karin Smit from Tricom Structures was invited by Mr. Louwrens Du Preez for a meeting (12 September) to discuss Tricom Structures concerns.

A meeting was held and a subsequent visual site visit and inspection was done.

1. Dust Generation by Shredder.

a) What is the exact nature whitish dust?

- a. The whitish dust is a combination of insulation, chalk and woven interweaved cable insulation used in Flexible Electrical Trailing Cable for Mines.

b) What are the hazards and risk attached to the whitish dust?

- a. According to the manufacturer there are no hazards to this product.
b. NN Metals also contacted some of our client SHEQ departments to inquire, this included Anglo American, Petra Diamonds and Debswana, Jwaneng Mine the product is not listed as hazardous at any of these mines.

c) Is a Material Safety Data Sheet available for this?

- a. No M.S.D.S. is available from any of the suppliers or the abovementioned mines.

d) What is the engineering solution to move outlets of the dust extraction filter component away from our yard?

- a. No dust whatsoever is coming from the dust extraction unit. It is possible that dust is blown from the granulation plant into the yard.
b. The factory Northern side will be partially closed up to the Rasper and the Eastern side will be closed off completely per our discussion and site visit with Mrs Karin Smit.

e) What is the engineering solution to contain/ trap the whitish dust.

- a. No dust is released from the dust extraction filter system.
b. The dust collection room door to be fitted and sealed.

Directors: P.C. Human, P.J.J. Human

- c. The top part of the dust collection room to be sealed with corrugated sheets.
- d. The bottom part of the structure to be sealed with spray foam.
- e. Area to be cleaned daily to avoid windblown dust to enter Tricom Structures property.
- f. The eastern wall to be closed off with corrugated sheets.
- g. The Northern part of the structure to be closed off up to the Rasper.
- h. Area to be cleaned daily.

NN Metals contacted Eldan Recycling the supplier of the granulation plant regarding dust emissions, they confirmed that the granulation plant with the dust extraction system in place confirms to all European emission standards.

2. Noise Pollution

- a. The generator (only to be used as a backup for power failures)
 - i. Located at the Eastern boundary a silencer will be fitted to the current exhaust outlet.
 - ii. The generator will be placed in, enclosed structure and or shipping's container.
- b. The granulation plant
 - i. The eastern wall to be closed off with corrugated sheets.
 - ii. The Northern part of the structure to be closed off up to the Rasper.

Mrs Karen Smit invited NN Metals to visit Tricom Structures site before starting the Granulation Plant this was done 08:00 on the 13 September to inspect if any dust was released from the extraction filters or blown into Tricom Structures yard. On inspection no dust whatsoever was found to be blown into Tricom Structures yard for the duration of the inspection.

NN Metals are confident in its investigations that no hazardous materials are used in our process and will continue to update all products Material Safety Data Sheets.

Regards

Louwrens Du Preez

Directors: P.C. Human, P.J.J. Human

**Zoning Certificate in terms of
the Tshwane Planning
Scheme, 2008**



City Planning & Development Department

Room G07 | Ground Floor | Munitoria Building | Cnr Lilian Ngoyi and Madiba streets |
PO Box 3242 | Pretoria | 0001
Tel: 012 368 7987.
Email: danielj@tshwane.gov.za | www.tshwane.gov.za

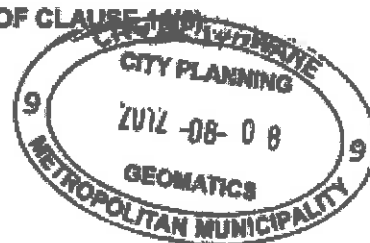
TO WHOM IT MAY CONCERN

Date: 8 August 2012

ZONING CERTIFICATE IN TERMS OF TSHWANE TOWN-PLANNING SCHEME, 2008

PROPERTY DESCRIPTION: REMAINDER OF ERF 110, WALTLOO

1. **USE ZONE 10: INDUSTRIAL 1**
2. **PURPOSES FOR WHICH BUILDINGS MAY BE ERECTED AND USED IN TERMS OF TABLE B (COLUMN 3):**
 - Cafeteria
 - Car Wash
 - Commercial Use
 - Industry
 - Light Industry
 - Parking Garage subject to Schedule 10
 - Parking Site subject to Schedule 10
3. **PURPOSES FOR WHICH BUILDINGS MAY BE ERECTED AND USED ONLY WITH THE CONSENT OF THE MUNICIPALITY IN TERMS OF TABLE B (COLUMN 4):**
 - Noxious Industry subject to Clause 14(6)(d)(ii).
 - Uses not in Columns 3 and 5, that is uses not specified in Paragraphs 2 and 4 of this certificate.
4. **PURPOSES FOR WHICH BUILDINGS MAY NOT BE ERECTED OR USED IN TERMS OF TABLE B (COLUMN 5):**
 - Not applicable.
5. **TEMPORARY USES MAY BE PERMITTED IN TERMS OF CLAUSE 14(1)**
6. **DENSITY: Not applicable.**



1...

- 7. **HEIGHT:** Table D, Height Zone 6, subject to Clause 26.
- 8. **FLOOR AREA RATIO:** Table C, FAR Zone 11, subject to Clause 25.
- 9. **COVERAGE:** Table E, Coverage Zone 11, subject to Clause 27.
- 10. **BUILDING LINES:**
 - Streets : Clause 9.
 - Other : Subject to Clause 12

11. **CONSENT USES:** None

Disclaimer: Please note that the validity of the Consent Use cannot be verified as the rights may have elapsed in terms of the conditions of the Consent Use approval. The validity will have to be proven by the owner of the property.

12. **ATTACHED DOCUMENTS:**

None

NOTE:

The above zoning information must be read in conjunction with the relevant Annexure T, if any, and the rest of the Clauses of the Tshwane Town-planning Scheme, 2008. Where an Annexure T does not specify or stipulate a land use or development control (for eg. Height, F.A.R. etc) the stipulations of the said Scheme clauses and the above Zoning Certificate shall prevail.

Kind regards



MA MISOHLE
f STRATEGIC EXECUTIVE DIRECTOR: CITY PLANNING & DEVELOPMENT

Property Description

Report Details

Search Date: 2012/07/11 10:38 AM
 Reference: MARZA/V1348
 Descriptor: WALTLOO, 110, Remitt. (PTA)
 Type Of Search: Deed Erf

Property Information

Deeds Office: PRETORIA
 Property Type: Erf
 Township Name: WALTLOO
 Erf Number: 110
 Portion Number: 0 (REMAINING EXTENT)
 Previous Description: T12508/1973
 Diagram Deed: 1,2228 H
 Size: 30
 Registration Division: JR
 Clearance Authority: CITY OF TSHWANE METROPOLITAN MUNICIPALITY
 Province: GAUTENG
 Situated at:
 LPI Code: T0002710000011000000
 Street Address: Not Searched

Owner Information

Owner: 1 of 1
 Owner Type: COMPANY
 Owner Name: UNITRADE 06 PTY LTD
 Registration Number: 19900006607
 Title Deed: T00193/2011
 Registration Date: 2011/12/12
 Purchase Price: R 3 000 000,00
 Multiple Owners: No
 Multiple Properties: No
 Share:
 Buy Date: 2011/05/31
 Microfilm Number:

Encumbrance Information

No	Document No	Document Type	Institution	Value	Microfilm No
1	FRDN-03/PTR1,04			Unknown	
2	057503/2011	BOND	FIRSTRAND BANK LTD	R 2 000 000,00	
3	WALTLOO,110			Unknown	1989 2141 0091

History Information

No	Document No	Document Type	Owner	Value	Microfilm No
1	T00193/2011	TRANSFER		R 5 104 537,00	
2	003195/2011	VARIOUS		Unknown	
3	045408/2005	BOND		Unknown	
4	0123240/2005	VARIOUS		Unknown	
5	024025/2004	VARIOUS		R 5 104 537,00	2004 0535 4213
6	024025/2004	VARIOUS		R 5 104 537,00	2004 0535 4213
7	043029/2003	BOND		Unknown	2003 0668 1187
8	T95017/1998	TRANSFER	NETBOARD PROP LTD	R 5 104 537,00	2003 0668 1187
9	T95017/1998	TRANSFER		Unknown	2003 0668 1187
10	T95017/1998	TRANSFER	NETBOARD PROP LTD	R 5 104 537,00	2003 0668 1187
11	T95017/1998	TRANSFER		R 3 064 000,00	2003 0668 1187
12	T95017/1998	TRANSFER	INVESTEC BUSINESS SERVICES LTD	R 5 104 537,00	2003 0668 1187
13	T74487/1992	TRANSFER		Unknown	1998 0992 0082
14	T74487/1992	TRANSFER	SHELDAN PROP PTY LTD	R 3 064 000,00	1998 0992 0082
15	T74487/1992	TRANSFER		Unknown	1998 0992 0082
16	WA1010/1992	LOST COPY	T21446/1994	Unknown	1992 0030 4032
17	T2708/1990	TRANSFER		Unknown	1992 0085 3213
18	T2708/1990	TRANSFER	GENERAL FOOD 2ND PROP ,490000	R 842 257,30	1992 0085 3213
19	T21446/1994	TRANSFER	GENERAL FOOD 3RD PROP ,510000	Unknown	1992 0085 3195
20	T12508/1973	TRANSFER	T E K INV PRETORIA ,490000	Unknown	1990 0113 2026
21	T12508/1973	TRANSFER	DEP INV PRETORIA ,510000	Unknown	1990 0113 2026
22				Unknown	

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**Appendix K:
Company Profile and CV of Lizelle
Gregory (Environmental
Assessment Practitioner)**

Qualifications And Experience In The Field Of Environmental Planning And Management (Lizelle Gregory (Member Bokamoso)):

Qualifications:

- Qualified as **Landscape Architect** at UP 1991;
- Qualified as **Professional Landscape Architect in 1997**;
- A Registered Member at The **South African Council for the Landscape Architect Profession (SACLAP)** with Practise Number: **PrLArch97078**;
- A Registered Member at the **International Association for Impact Assessment Practitioners (IAIA)**;
- Qualified as an **Environmental Auditor in July 2008** and also became a Member of the International Environmental Management Association (IEMAS) in 2008.

Working Experience:

- Worked part time at Eco-Consult – 1988-1990;
- Worked part time at **Plan Associates as Landscape Architect in training** – 1990-1991;
- Worked as Landscape Architect at **Environmental Design Partnership (EDP)** from 1992 - 1994
- Practised under **Lizelle Gregory Landscape Architects** from 1994 until 1999;
- Lectured** at Part-Time at **UP (1999)** – Landscape Architecture and **TUT (1998- 1999)**- Environmental Planning and Plant Material Studies;
- Worked as **part time Landscape Architect and Environmental Consultant at Plan Associates** and **managed their environmental division for more that 10 years** – 1993 – 2008 (assisted the **PWV Consortium** with various road planning matters which amongst others included environmental Scans, EIA's, Scoping reports etc.)
- Renamed business as **Bokamoso in 2000** and is the only member of Bokamoso Landscape Architects and Environmental Consultants CC;
- More than 20 years experience in the compilation of Environmental Reports**, which amongst others included the compilation of various **DFA Regulation 31 Scoping Reports**, EIA's for EIA applications in terms of the applicable environmental legislation, Environmental Management Plans, Inputs for Spatial Development Frameworks, DP's, EMF's etc. Also included EIA Application on and adjacent to mining land and slimes dams (i.e. Brahm Fisherville, Doornkop)

Qualifications And Experience In The Field Of Landscape Architecture (Lizelle Gregory (Member Bokamoso)):

Landscape Architecture:

-Compiled landscape and rehabilitation plans for more than 22 years.

The most significant landscaping projects are as follows:

-Designed the Gardens of the Witbank Technicon (a branch of TUT). Also supervised the implementation of the campus gardens (2004);

-Lizelle Gregory was the Landscape Architect responsible for the paving and landscape design at the UNISA Sunnyside Campus and received a Corobrick Golden Award for the paving design at the campus (1998-2004);

-Bokamoso assisted with the design and implementation of a park for the City of Johannesburg in Tembisa (2010);

-The design and implementation of the landscape gardens (indigenous garden) at the new Coca-Cola Valpre Plant (2012-2013);

-Responsible for the rehabilitation and landscaping of Juksei River area at the Norwood Shopping Mall (Johannesburg) (2012-2013);

-Designed and implemented a garden of more than 3,5ha in Randburg (Mc Arthurpark). Bokamoso also seeded the lawn for the project (more than 2,5 ha of lawn successfully seeded) (1999);

-Bokamoso designed and implemented more than 800 townhouse complex gardens and submitted more than 500 Landscape Development Plans to CTMM for approval (1995 – 2013);

-Assisted with Landscape Designs and the Masterplan at Eco-Park (M&T Developments) (2005-2011);

-Bokamoso designed and implemented an indigenous garden at an office park adjacent to the Bronberg. In this garden it was also necessary to establish a special garden for the Juliana Golden Mole. During a recent site visit it was established that the moles are thriving in this garden. Special sandy soils had to be imported and special indigenous plants had to be established in the natural section of the garden.

-Lizelle Gregory also owns her own landscape contracting business. **For the past 20 years she trained more than 40 PDI jobless people (sourced from a church in Mamelodi)** to become landscape contracting workers. All the workers are (on a continuous basis) placed out to work at nurseries and other associated industries;

-Over the past 20 years the Bokamoso team compiled more than 800 landscape development plans and also implemented most of the gardens. Bokamoso also designed and implemented the irrigation for the gardens (in cases where irrigation was required). Lizelle regarded it as important to also obtain practical experience in the field of landscape implementation.



Bokamoso

Landscape Architects &
Environmental consultants

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Marokwena
0151

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Fax: 0151 500 3556

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- 01 Executive Summary
- 02 Vision, Mission & Values
- 03 Human Resources
- 04 Services
- 05 Landscape Projects
- 06 Corporate Highlights
- 07 Environmental Projects
- 08 Indicative Clients
- 09 Tools



Bokamoso
Pty Ltd

Table of Contents

Bokamoso specialises in the fields of Landscape Architecture and all aspects of Environmental Management and Planning. Bokamoso was founded in 1997 and has shown growth by continually meeting the needs of our clients. Our area of expertise stretches throughout the whole of South Africa. Our projects reflect the competence of our well compiled team. The diversity of our members enables us to tend to a variety of needs. Our integrated approach establishes a basis for outstanding quality. We are well known to clients in the private commercial as well as governmental sector.

At Bokamoso we stand on a firm basis of environmental investigation in order to find unique solutions to the requirements of our clients and add value to their operations.



01 Executive Summary

011 Company Overview

Vision:

At Bokamoso we strive to find the best planning solutions by taking into account the functions of a healthy ecosystem. Man and nature should be in balance with each other.

Mission:

We design according to our ethical responsibility, take responsibility for successful completion of projects and constitute a landscape that contributes to a sustainable environment. We add value to the operations of our clients and build long term relationships that are mutually beneficial.

Values:

- Integrity
- Respect



Bokamoso stands on the basis of fairness. This includes respect within our multicultural team and equal opportunities in terms of gender, nationality and race.

We have a wide variety of projects to tend to, from complicated reports to landscape installation. This wide range of projects enables us to combine a variety of professionals and skilled employees in our team.

Bokamoso further aids in the development of proficiency within the working environment. Each project, whether in need of skilled or unskilled tasks has its own variety of facets to bring to the table.

We are currently in the process of receiving our BEE scorecard. We support transformation in all areas of our company dynamics.



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03 Human Resources

2011 Employment Equity

Lizelle Gregory (100% interest)

Lizelle Gregory obtained a degree in Landscape Architecture from the University of Pretoria in 1992 and passed her board exam in 1995. Her professional practice number is PrLArch 97078.

Ms. Gregory has been a member of both the Institute for Landscape Architecture in South Africa (ILASA) and South African Council for the Landscape Architecture Profession (SACLAP), since 1995.

Although the existing Environmental Legislation doesn't yet stipulate the academic requirements of an Environmental Assessment Practitioner (EAP), it is recommended that the Environmental Consultant be registered at the International Association of Impact Assessments (IAIA). Ms. Gregory has been registered as a member of IAIA in 2007.

Ms. Gregory attended and passed an International Environmental Auditing course in 2008. She is a registered member of the International Environmental Management and Assessment Council (IEMA).

She has lectured at the Tshwane University of Technology (TUT) and the University of Pretoria (UP). The lecturing included fields of Landscape Architecture and Environmental Management.

Ms. Gregory has more than 18 years experience in the compilation of Environmental Evaluation Reports:

Environmental Management Plans (EMP);

Strategic Environmental Assessments;

All stages of Environmental input;

EIA under ECA and the new and amended NEMA regulations and various other Environmental reports and documents.

Ms. Gregory has compiled and submitted more than 600 Impact Assessments within the last 5-6 years. Furthermore, Ms. L. Gregory is also familiar with all the Gauteng Provincial Environmental policies and guidelines. She assisted and supported GAITRANS former PWV Consortium with Environmental issue and report compilation from 2002 until 2007. She also assisted with the compilation of all the reports for the last 10 years.



Resources

03 Human

032 Members

Consulting

Mientjie Coetzee

MSc Medical Sciences (US)

BSc (Hons) Medical Sciences (US)

More than 8 years experience in the compilation of various environmental reports

Ane Agenbacht

Introduction to Sustainable Environmental Management—An overview of Principles, Tools, & Issues (Pretz 2008)

Leadership Training School (Lewende Woord 2010)

BA Environmental Management (UNISA 2011)

PGCE Education (Unisa 2013)

Project Manager

More than 10 years experience in the compilation of various environmental reports

Qiqqa Nkangana

BA Environmental Management (UNISA)

Specialises in compiling various environmental reports.

Nicolene Lotter

BSc (Hons) Environmental Science (NWU)

BSc Tourism (NWU)

1 year 4 months experience in the field of Environmental Sciences.

Specialises in Water Use License Applications

Ben Bhukwana

BSc Landscape Architecture (UP)

More than 4 years experience in the field of Landscape Architecture.

Specialises in Landscape Design, ECO & Environmentalist in training.

Maril Burger

B-Tech Nature Conservation (TUT)

M. Dip. Nature Conservation (TUT)

EM Training (GDARU University of Pretoria)

Specialises in Water Use License Applications

Specialises in Water Use Licenses

03 Human Re-

033 Personnel



Anton Nel

B-Tech Landscapes Technology (TUT)
N Dip Landscapes Technology (TUT)
1 year experience in ECO
Specialises in Basic Assessment Reports

Juanita de Beer

Events Management and Marketing (Damelin)
Specializes in Public relations and public participation processes

Mary-Lee Potgieter

Msc Plant Science (UP)
BSc (Hons) Plant Science (UP)
BSc Ecology (UP)
1 year 5 months working experience in the Environmental field
Specialises in ECO works, Basic Assessments, EA's, and Flora Reports

Alfred Thomas

C/W Foundation & Internet Marketing (IT Academy)
12 years experience in GIS and IT in general
GIS Operator and Multimedia Specialist

Maretha Roux

Effective People Management (UCT)
18 years management experience
Specializes in AutoCAD, Visio, Accounting, and Administration
Compiling of various Environmental Reports/
Assisting Project Management
Photographer



Elsa Viviers

Interior Decorating (Centurion College)
(Accounting/ Receptionist) and Secretary to Lizelle Gregory

Louisa du Toit

N. Dip. Professional Teacher (Heidelberg Teachers Training College)
Librarian and PA to Project Manager

Merriam Mogaiki

Administration Assistant with in-house training in bookkeeping

Landscape Contracting

Elias Maloka

Site manager overseeing landscape installations.
Irrigation design and implementation.
Landscape maintenance
16 years experience in landscape contracting works.

The contracting section comprises of six permanently employed black male workers. In many cases the team consists of up to 12 workers, depending on the quantity of work.



03 Human Resources

035 Personnel

01 Environmental Management Services

- Basic Assessment Reports
- EIA & Scoping Reports
- Environmental Management Plans
- Environmental Scans
- Strategic Environmental Assessments
- EMP for Mines
- Environmental Input and Evaluation of Spatial Development Frameworks
- State of Environmental Reports
- Compilation of Environmental Legislation and Policy Documents
- Environmental Auditing and Monitoring
- Environmental Control Officer (ECO)
- Visual Impact assessments
- Specialist Assistance with Environmental Legislation Issues and Appeals
- Development Process Management
- Water Use License applications to DWIA

Water Use License Application



04 Services

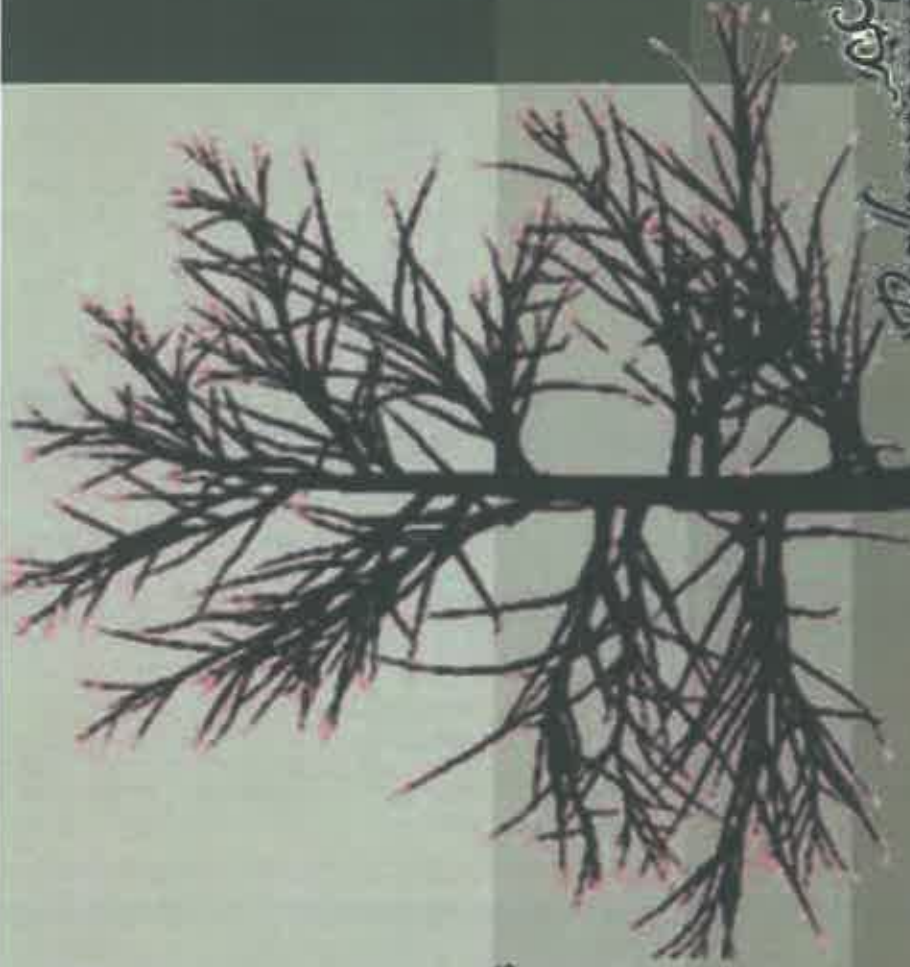
01 Consulting Services

02 Landscape Architecture

- Master Planning
- Sketch Plans
- Planting Plans
- Working Drawings
- Furniture Design
- Detail Design
- Landscape Development Frameworks
- Landscape Development Plans (LDP)
- Contract and Tender Documentation
- Landscape Rehabilitation Works

03 Landscape Contracting

- Implementation of Plans for:
 - Office Parks
 - Commercial/ Retail/ Recreational Development
 - Residential Complexes
 - Private Residential Gardens
 - Implementation of irrigation systems



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04 Services

05 Contracting Services

▲ Team Composition

● Environmental

■ Landscape



Bokamoso

04 Services

43 Orientation

01 Valpre Bottling Plant, Heidelberg



project

site plan

shutterstock

05 Landscape Projects—Current
and Commercial



01 Valpre Bottling Plant, Heidelberg



05 Landscape Projects- Current

051 Commercial

01 Valpre Bottling Plant, Heidelberg



gatehouse

front garden



06 Landscape Projects- Current

051 Commercial

01 Valpre Bottling Plant, Heidelberg



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05 Landscape Projects - Current
Commercial

02 Melodie Waters, Hartebeespoortdam



Indigenous Planting



Streetscape

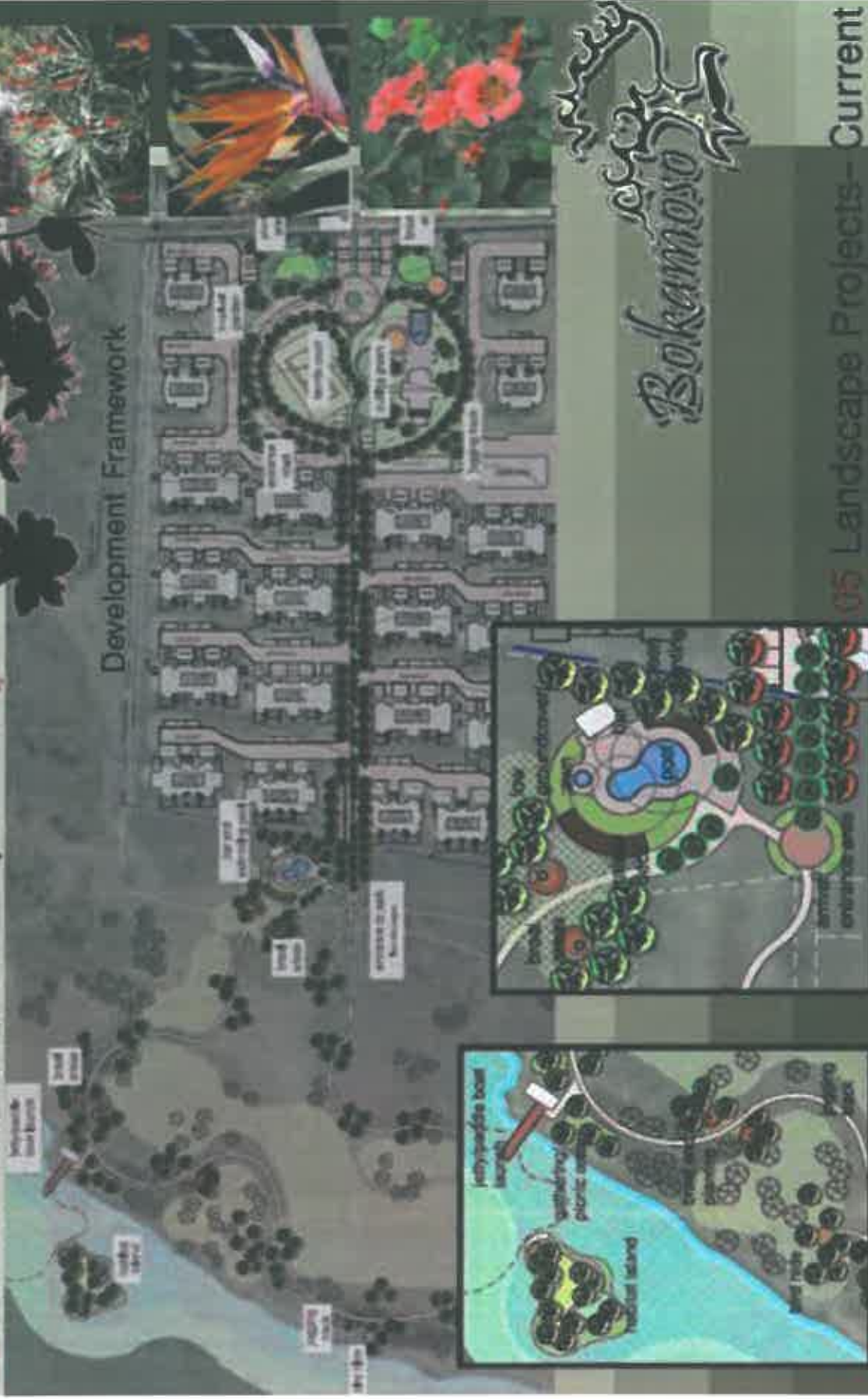


Landscape Projects – Current

Community/Recreational



02 Melodie waters, Hartbeespoortdam



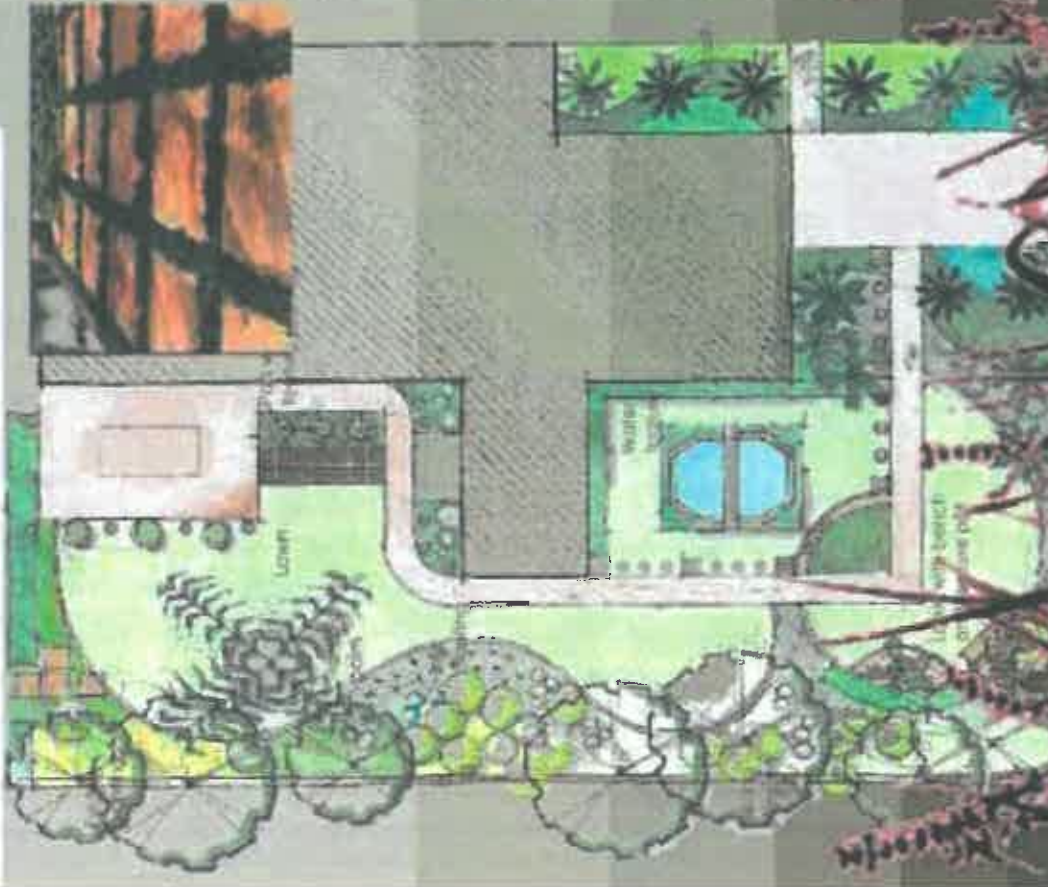
05 Landscape Projects- Current

Commercial and Recreational

Urban Landscape

Rehabilitation

04 Ismail Dawson offices, Pretoria



Bokamoso

06 Landscape Projects - Conceptual

053 Offices



05 Celtic Manor, Pretoria

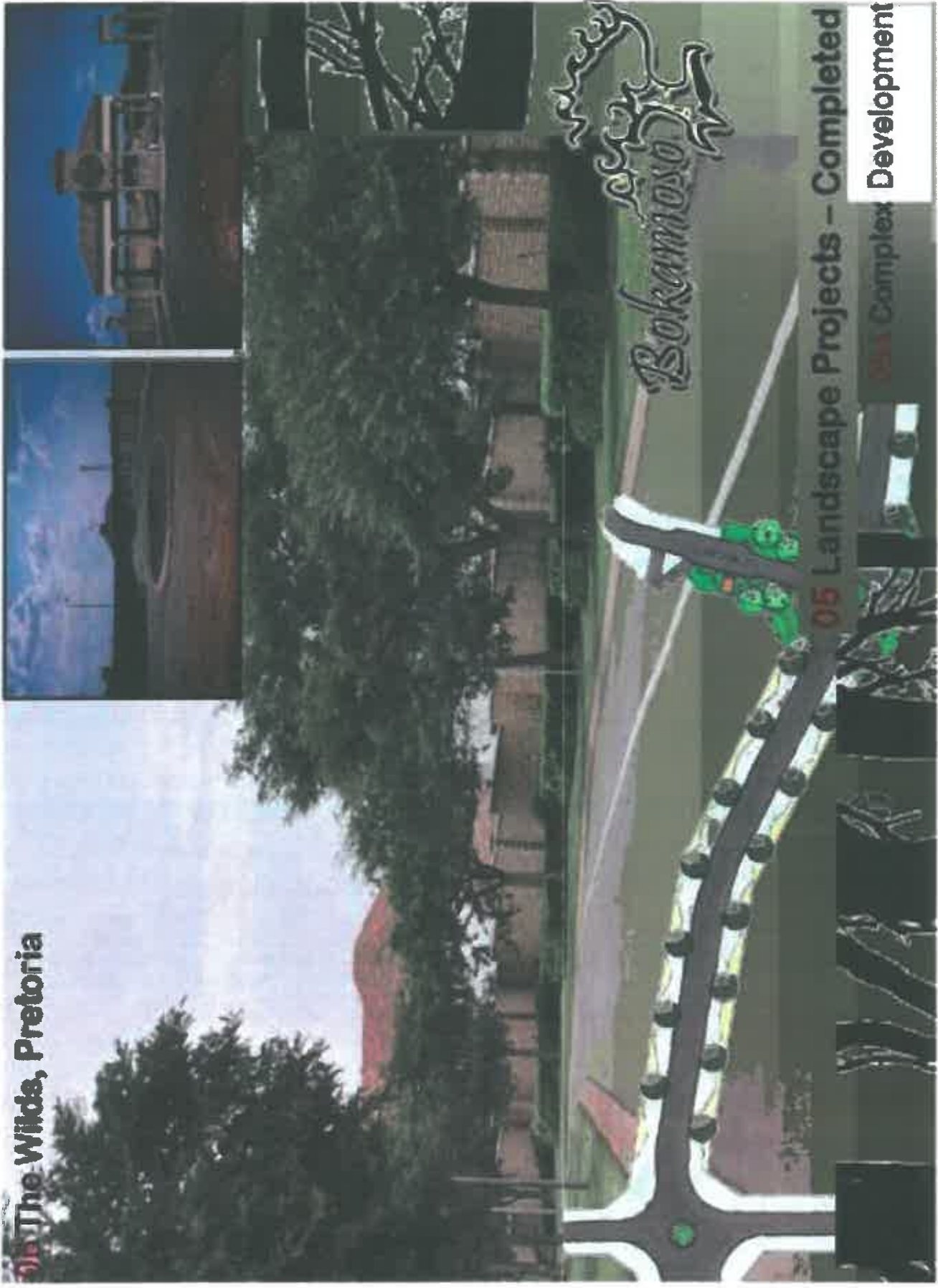


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05 Landscape Projects - Completed

054 Complex Development

01 The Wilds, Pretoria



05 Landscape Projects - Completed

Complex Development

07 The Wilds, Pretoria



05 Landscape Projects - Completed

055 Residential

08 The Wilds, Pretoria



Bokamoso

Landscape Projects – Completed

Residential

09 The Wilds, Pretoria \-



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06 Landscape Projects - Completed

055 Residential

010 The Wilds, Pretoria



Bokamoso

05 1057429024 | Per 6 months | 1st Completed
Residential

011 Governor of Reserve Bank's Residence, Pretoria



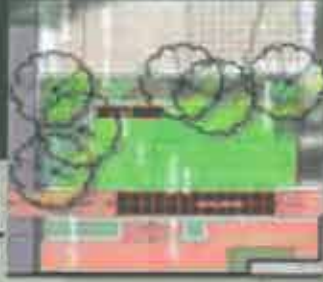
Plant Palette



Option 1



Option



Bokamoso

012 House Ismail, Pretoria



Front Garden



Back Garden

Bokamoso

013 Forest Garden, Pretoria

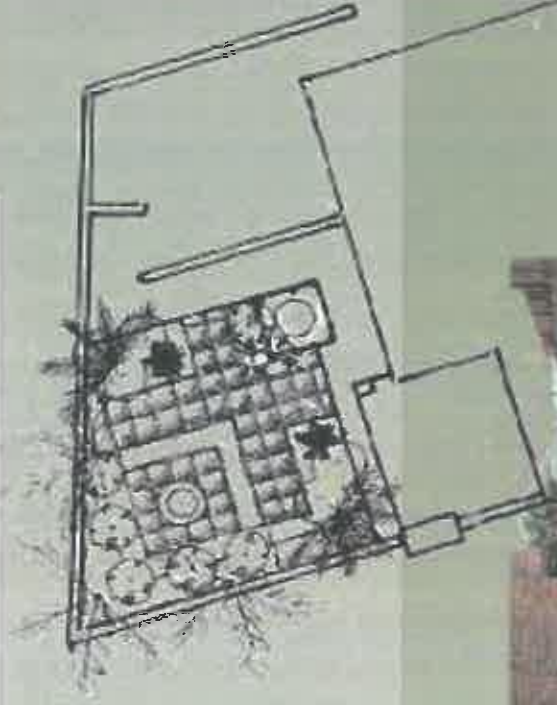


Bokamoso

Landscape Projects – Completed
Residential

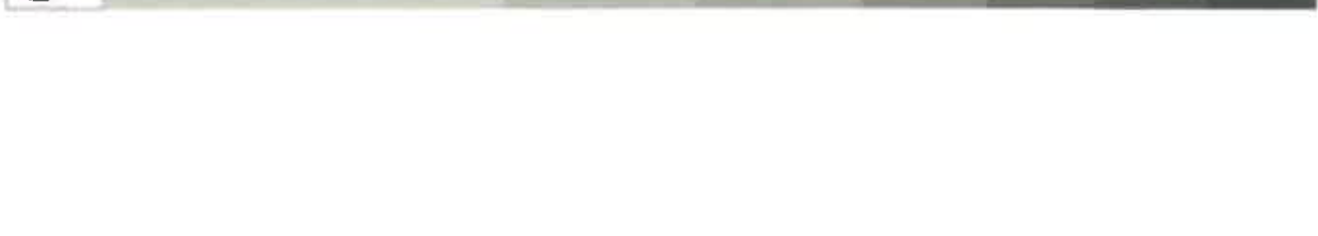


016 Forest Garden, Pretoria



Bokamoso

06 Landscape Projects - Completed
055 Residential



01 Safari Garden Expo

Received a Silver Certificate at the Safari Garden Expo, 2010



Bokamoso

06 Corporate

Highlights

061 Awards

02 UNISA Sunnyside Campus, Pretoria
Best Commercial Paving Plan in Gauteng, 1997



06 Corporate Highlights

1 Awards

Project Name	Status	Project
Environmental Impact Assessment(EIA) and Scoping Report		
Junction 21	ROD	EIA
5 O'clock site access	In Progress	EIA
Bokamoso X 1	In Progress	Scoping & EIA
Doomvallei Phase 6 & 7	In Progress	EIA
Engen Interchange	In Progress	Scoping & EIA
Erasmia X15	In Progress	EIA
Franschhoek	In Progress	EIA
K113	Amendment of ROD	EIA
K220 East	ROD	EIA
K220 West	ROD	EIA
K54 ROD conditions	In Progress	EIA
Knopieslaagte 9/5/Peachtree	ROD	EIA
Knopieslaagte portion 20 & 21	ROD	EIA
Lillieslie/Noordgedacht	In Progress	EIA
Mooiplaats 70 (Sutherland)	In Progress	EIA
Naauwpoort 1 - 12/Valley View	In Progress	EIA
Peach Tree X5	In Progress	EIA
Strydomfontein 60	In Progress	EIA
Thabe Molswere	In Progress	Scoping & EIA
Vlaagplaats	In Progress	EIA
Watersval Valley	In Progress	EIA
Environmental Opinion		
Doomvallei 65/19/2001	In Progress	Opinion
Monivon X 53	In Progress	EIA & Opinion
Moorosi (USN)	In Progress	Opinion
Horwood Meadows/MPUE	In Progress	Opinion
Erasmia X 9	In Progress	Opinion

The adjacent list host the status of our current projects. Only a selected amount of projects are displayed.





Project Name	Status	Project
Basic Assessment(BA)		
Annlin X 138	In Progress	BA
Clubview X 29	ROD	BA
Darrenwood Dam	In Progress	BA
Durley Holding 90 & 91	In Progress	BA
Elim	In Progress	BA
Fochville X 3	In Progress	BA
Harlebeeshoek 251	In Progress	BA
Klerksdorp (Mallusana Mall)	In Progress	BA
Monavoni External Services	ROD	BA
Monavoni X 45	Amendment of ROD	BA
Montana X 146	In Progress	BA
Roohuiskraal X29	In Progress	BA
Thorn tree Mall	In Progress	BA

Environmental control officer (ECO)		
Grace Point Church	In Progress	ECO
R 81	In Progress	ECO
Highveld X 61	In Progress	ECO
Mall of the North	In Progress	ECO
Olievonthoutbosch Road	In Progress	ECO
Orchards 39	In Progress	ECO
Pieterie van Rynsveld Ruisarivier	In Progress	ECO
Protect Shelter	In Progress	ECO

524 G		
Wendervoor	In Progress	524 G
Wendervoor	Cancelled	524 G

67 Current Environmental Projects
 524 G, 524 G & 524 G



Project Name	Status	Project
Objection		
Colesberg WW/TW	In Progress	Objection
Nigel Slaughtermill	Completed	Objection
Chamilly Waters	Completed	Objection
Development facilitation Act-Input (DFA)		
Burgersfort	In Progress	DFA & BA
Doornpoort Filling Station	In Progress	DFA & EIA & Scoping
Eastwood Junction	In Progress	DFA
Ingersd Road (Erl 78, 81 - 83)	In Progress	DFA
Rooib Senelael	In Progress	DFA & EIA & Scoping
Thaba Meeuse 1	In Progress	DFA & EIA & Scoping
Water Use License Act (WULA)		
Brits town Bulk Water Supply	In Progress	WULA
Geleery Road / Green Channel	In Progress	WULA
Cleyville X 46	In Progress	WULA
Dindingwa Lodge	In Progress	WULA
Doornpoort Filling Station	In Progress	WULA+DFA+EIA+SC
Eco Park Dam	In Progress	WULA
Groote Drift Petch	In Progress	WULA
Jozim Shopping Centre	In Progress	WULA+BA
K60	Completed	WULA
Meloto Roads	In Progress	WULA
Kwazulu Sewerage Works	In Progress	WULA
Monyane Extention Services	In Progress	WULA+BA
Muthi Eco Estate	In Progress	WULA
Prairie Granite X3	In Progress	WULA
Wolfsburg	In Progress	WULA

Project Name Status Project

Environmental Management Plan(EMP)	
Heidelberg X 12	EMP
Monavon Shopping Centre	EMP
Forest Hill Development	EMP
Welleverden Farm 105KQ	EMP+EIA
Rastouw Holding 93	EMP+BA
Durley Development	EMP+BA
Rochuskraal North X 28	EMP

Rehabilitation Plan

Norwood Mall/Sandspruit	In Progress	Rehabilitation
Project Shelter Heidelberg	In Progress	Rehabilitation
Sagewood Attenuation Pond	ROD	Rehabilitation
Veimore Hotel	Completed	Rehabilitation
Grace Point Church	Completed	Rehabilitation
Mmametodi Pipeline	Completed	Rehabilitation

Visual Impact Assessment

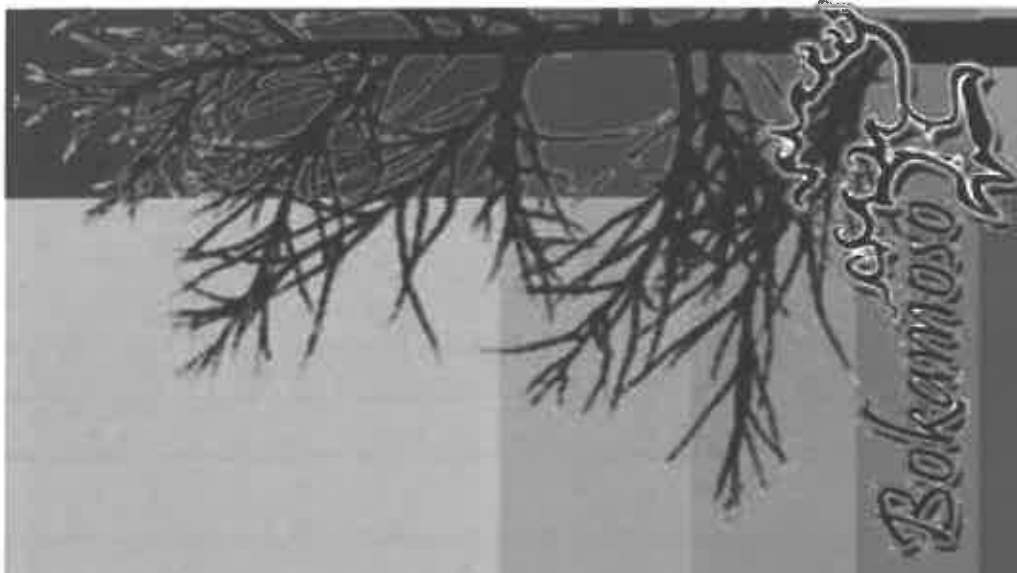
Swartzkop Industrial Development	Completed	Assessment +DFA
Erasmia	Completed	Assessment

Signage Application

Marilyn Advertising	Completed	Signage
The Villa Mall	Completed	Signage+EMP+BA

07 Current Environmental Projects

01 EMP, Rehabilitation, Waste Management & Signage Application



- Billion Property Group
- Cavaleros Developments
- Centro Developers
- Chamberlains
- Chieftain
- Century Property Group
- Coca Cola
- Elmado Property Development
- Flanagan & Gerard
- Gautrans
- Hartland Property Group
- Moolman Group
- MTN
- M&T Development
- Old Mutual
- Property Investment Company
- Petroland Developments
- RSD Construction
- SAND
- Stephan Parsons
- Twin City Developments
- Urban Construction
- USN



- Adobe Illustrator CS3
- Adobe Photoshop CS3
- Adobe InDesign CS3
- AutoCAD
- Google SketchUP
- GIS
- Microsoft Office Word
- Microsoft Office Excel
- Microsoft Office Publisher
- Microsoft Office Power Point

