SECTION 24G APPLICATION

The proposed expansion of a diesel depot on Portion 1 of Plot 42, Estoire, Bloemfontein

Location:	Portion 1 of Plot 42, Estoire, Bloemfontein, Free State
Applicant:	Mack's Petroleum (PTY) LTD
Competent Authority:	The Free State Department of Economic, Small Business Development, Tourism and Environmental Affairs (DESTEA)
MDA Ref No:	40813
DESTEA Ref No:	
NEAS Ref No:	
Report Date:	August 2021

mda Town & Regional Planners, Environmental & Development Consultants

Physical Address: 9 Barnes Street, Westdene, Bloemfontein, 9301
Postal Address: PO Box 100982, Brandhof, 9324
Tel: 051 4471583, Fax: 051 448 9839
E-mail: admin@mdagroup.co.za

destea
department of
economic, small business development,
tourism and environmental affairs
FREE STATE PROVINCE

DEPARTMENT OF ECONOMIC, SMALL BUSINESS DEVELOPMENT, TOURISM AND ENVIRONMENTAL AFFAIRS

Application form for the rectification of unlawful commencement or continuation of a listed activity in terms of S24G of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended:

2014

Kindly note that:

1. This application form must be completed for all applications in terms of S24G of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

2. It is the responsibility of the Applicant / Environmental Assessment Practitioner (EAP) to ascertain whether subsequent versions of the application form have been published or produced by the relevant competent authority.

3. The content of the application for rectification form comprises of:

   Section A: Application Information
   Section B: Activity Information
   Section C: Description of Receiving Environment
   Section D: Preliminary Impact Assessment
   Section E: Alternatives
   Section F: Appendices
   Section G: Declarations

4. An independent EAP must be appointed to complete the application form on behalf of the applicant; the declaration of independence must be completed by the independent EAP and submitted with the application.

5. The required information must be typed within the spaces provided. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. The space provided extend as each space is filled with typing. A legible font type and size must be used when completing the form. The font size should not be smaller than 10pt (e.g. Arial 10).

6. The use of *"not applicable"* in the application form must be done with circumspection.

7. No faxed or e-mailed applications will be accepted. This application form must be submitted by hand or mailed to the relevant competent.

8. Unless protected by law, all information contained in and attached to this application form may become public information on receipt by the competent authority. Upon request, any interested and affected party must be provided with the information contained in and attached to this application form.

9. This application form constitutes the initiation of the S24G application process.

DEPARTMENTAL DETAILS

St. Andrews Building
113 St. Andrews Street
Bloemfontein
9300

Private Bags X 20801
Bloemfontein
9300

Tel: +27 (0)51 400 4817/19
Fax: +27 (0)51 400 4842
e-mail: mkhosana@detea.fs.gov.za

SECTION A: APPLICATION INFORMATION

1. APPLICANT PROFILE INDEX

Cross out the appropriate box "☒".

1.1	The applicant is an individual		NO
1.2	The applicant is a company	YES	
1.3	The applicant is a state-owned enterprise or municipality		NO
1.4	Other (specify)		NO
1.5	There is more than one individual / company responsible for the unlawful commencement of listed activities		NO

Name of Project applicant:	MACK'S PETROLEUM (PTY) LTD		
RSA Identity number:	5 6 0 4 1 7 5 0 0 3 0 8 0		
Contact person:	GEORGE MYERS		
Position in company	MANAGER		
Registered Name of Company/ Closed Corporation	MACK'S PETROLEUM (PTY) LTD		
Trading name (if any):	MACK'S PETROLEUM (PTY) LTD		
Registration number	2015/394838/07		
Postal address:	P.O. BOX 338		
	VRYBURG	Postal code:	8600
Telephone:	(053) 927 2215/6	Cell:	0828811310
E-mail:	AIRPORT@MWEB.CO.ZA	Fax:	( )

Please Note: In instances where there is more than one individual / company responsible for the unlawful commencement of listed activities, please attach a list of with all contact details to the back of this page.

Environmental Assessment Practitioner **(EAP)**:	MDA		
Contact person:	NEIL DEVENISH		
Postal address:	P.O. BOX 100982		
	BRANDHOF BLOEMFONTEIN	Postal code:	9324
Telephone:	(051)4471583	Cell:	0827700583
E-mail:	NEIL@MDAGROUP.CO.ZA	Fax:	(051)4489839
EAP Qualifications	B.A. M.TRP.		
EAP Registrations/Associations	PR.PLN (A/1133/1999) SAPI		

Name of Landowner(s):	MACK'S PETROLEUM (PTY) LTD		
Contact person(s):	GEORGE MYERS		
Postal address:	P.O. BOX 338		
	VRYBURG	Postal code:	8600
Telephone:	0828811310	Cell:	0828811310

E-mail:	AIRPORT@MWEB.CO.ZA	Fax:	( )

Please Note: In instances where there is more than one landowner, please attach a list of landowners with their contact details to the back of this page.

Municipality in whose area of jurisdiction the activity falls:	MANGAUNG METROPOLITAN MUNICIPALITY		
Contact person:	MR MZINGISI NKUNGWANA		
Postal address:	P.O. BOX 3704		
	BLOEMFONTEIN	Postal code:	9300
Telephone	(051) 406 6304	Cell:	
E-mail:	MZINGISI.NKUNGWANA@MANGAUNG.CO.ZA	Fax:	( )

Please Note: In instances where there is more than one Municipality involved, please attach a list of Municipalities with their contact details to the back of this page.

Project title:	THE PROPOSED EXPANSION OF A DIESEL DEPOT ON PORTION 1 OF PLOT 42, ESTOIRE, BLOEMFONTEIN					
Property location:	PORTION 1 OF PLOT 42, ESTOIRE, BLOEMFONTEIN					
Farm/Erf name & number (incl. portion):	PORTION 1 OF PLOT 42, ESTOIRE, BLOEMFONTEIN					
SG21 Digit code:	F00300310000004200001					
Co-ordinates:	Latitude (S):			Longitude (E):		
	29°	06'	41.42"	26°	16'	12.50"

Please Note:
Where a large number of properties are involved (e.g. linear activities), attach a list of property descriptions to the back of this page. 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 must be in degrees, minutes and seconds. The minutes must be given to at least three decimals to ensure adequate accuracy. The EAP is required to contact the relevant competent authority with regards to the projection that must be used.

Street address:	PORTION 1 OF PLOT 42, SAND DU PLESSIS AVENUE, ESTOIRE, BLOEMFONTEIN		
Magisterial District or Town:	BLOEMFONTEIN		

Please Note: In instances where there is more than one town or district involved, please attach a list of towns or districts as well as complete physical address information for the entire area to the back of this page.

Closest City/Town:	ESTOIRE, BLOEMFONTEIN	DISTANCE	0KM
Zoning of Property:	SPECIAL BUSINESS: TYPE 2		

Please Note: In instances where there is more than one zoning, please attach a map clearly indicating the zoning of the different portions.

Was a rezoning application required?	YES	
Was a consent use application required?		NO

Please Note: Where planning approvals have been granted please attach the relevant approvals.

Owners consent:	N/A, AS THE APPLICANT IS THE LANDOWNER

2. APPLICATION HISTORY

(Cross out the appropriate box "☒" and provide a description where required).

Has any national, provincial or local authority considered any development applications on the property previously?	YES	

If so, please give a brief description of the type and/or nature of the application/s: (In instances where there were more than one application, please attach a list of these applications)

NOTE: AN APPLICATION FOR ENVIRONMENTAL AUTHORISATION (FULL EIA PROCESS) WAS SUBMITTED TO DESTEA FOR THE CONSTRUCTION OF A DIESEL DEPOT. INITIALLY, A 79 000L TANK WAS AVAILABLE ON SITE (UNDER THRESHOLD). HOWEVER, AN ADDITIONAL TANK (80 000+L) WAS ERECTED ADJACENT TO THE EXISTING TANK. PLEASE NOTE THAT THE ADDITIONAL TANK IS NOT COUPLED TO ANY PIPES AND ARE THEREFORE NOT OPERATIONAL. DESTEA SUGGESTED THAT THE APPLICATION (EIA PROCESS) SHOULD BE WITHDRAWN AND THAT A SECTION 24G APPLICATION PROCESS SHOULD BE FOLLOWED.

Which authority considered the application(s):

DESTEA

Has any one of the previous application/s on the property been approved or rejected? If so provide a list of the successful and unsuccessful application/s and the reasons for decision/s.	N/A	

DESTEA SUGGESTED THAT THE APPLICATION SHOULD BE WITHDRAWN.

Provide detail on the period of validity of decision(s) and expiry dates of the above applications/ permits etc.

N/A

I hereby apply in terms of Section 24 G of the National Environmental Management Act (Act no 107 of 1998 as amended) for the rectification of the unlawful commencement or continuation of the listed activity(ies) in Section B of the application form:

Applicant (Full names) GEORGE MYERS

Signature:

Place: BLOEMFONTEIN

Date: 20 AUGUST 2021

EAP (Full names) NEIL DEVENISH

Signature:

Place: BLOEMFONTEIN

Date: 2 SEPTEMBER 2021

SECTION B: ACTIVITY INFORMATION

1. ACTIVITIES APPLIED FOR:

Separate rectification applications are required for one development site where more than one listed activity has commenced and where these unlawfully commenced activities constitute offences in terms of different EIA regulations (refer to Table 1 & 2 of the S24G guideline).

Applicants and EAPS are strongly advised to discuss the merits of a combined application *(if deemed applicable)* with the relevant competent authority prior to the completion of this application form and submission thereof.

The relevant competent authority will use its discretion in deciding to allow one rectification application for more than 1 Section 24F(2(a) contravention on one development site.

All potential listed activities associated with the development must be indicated below. (See Annexures B, C, D and E). Only those activities for which the applicant applies will be considered.

The onus is on the applicant to ensure that all the applicable listed activities are included in the application.

Listed activities applied for. Identify the relevant listed activities applied for below:

ECA EIA Contraventions : Between 08 September 1997 end of day 09 May 2002	
Activities unlawfully commenced with on or after 08 September 1997 and before end 09 May 2002: EIA Regulations promulgated in terms of the ECA, Act No 73 of 1989, as amended	
Listed Activity(ies)	Details of Activity(ies)
N/A	N/A

ECA EIA Contraventions : Between 10 May 2002 and before end of day 02 July 2006	
Activities unlawfully commenced with on or after 10 May 2002 and before end 02 July 2006: EIA Regulations promulgated in terms of the ECA, Act No 73 of 1989, as amended	
Listed Activity(ies)	Details of Activity(ies)
N/A	N/A

NEMA EIA Contraventions : Between 03 July 2006 and before end of day 01 August 2010	
Activities unlawfully commenced with in terms of the EIA Regulations promulgated in terms of the NEMA, Act No 107 of 1998, as amended on or after 03 July 2006 and before end of day 01 August 2010	
Government Notice No. R386 Activity No(s):	Details of Activity(ies) requiring Basic Assessment
N/A	N/A
Government Notice No. R387 Activity No(s):	Details of Activity(ies) requiring a Scoping Report and EIA
N/A	N/A

NEMA EIA Contraventions : On or after 02 August 2010	
Activities unlawfully commenced with in terms of the EIA Regulations promulgated in terms of the NEMA, Act No 107 of 1998, as amended on or after 02 August 2010	
Government Notice No. R544 Activity No(s):	Details of Activity(ies) requiring Basic Assessment
N/A	N/A
Government Notice No. R545 Activity No(s):	Details of Activity(ies) requiring a Scoping Report and EIA
N/A	N/A
Government Notice No. R546 Activity No(s):	Details of Activity(ies) requiring S&EIr

N/A	N/A

NEMA EIA Contraventions : On or after 08 December 2014	
Activities unlawfully commenced with in terms of the EIA Regulations promulgated in terms of the NEMA, Act No 107 of 1998, as amended on or after 08 December 2014 as amended on 07 April 2017.	
Government Notice No. R983 Activity No(s):	Details of Activity(ies) requiring Basic Assessment
51	The expansion and related operation of facilities for the storage, or storage and handling, of a dangerous good, where the capacity of such storage facility will be expanded by more than 80 cubic metres.
67	Phased activities for all activities- (i) Listed in this Notice, which commenced on or after the effective date of this Notice or similarly listed in any of the previous NEMA Notices, which commenced on or after the effective date of such previous NEMA Notices; Excluding the following activities listed in this Notice – 17(i)(a-d); 17(ii)(a-d); 17(iii)(a-d); 17(iv)(a-d); 17(v)(a-d); 20; 21; 22; 24(i); 29; 30; 31; 32; 34; 54(i)(a-d); 54(ii)(a-d); 54(iii)(a-d); 54(iv)(a-d); 54(v)(a-d);55; 61; 64; and 65; or (ii) Listed as Activities 5, 7, 8(ii), 11, 13, 16, 27(i), or 27(ii) in Listing Notice 2 of 2014 or similarly listed in any of the previous NEMA Notices, which commenced on or after the effective date of such previous NEMA Notices; Where any phase of the activity was below a threshold but where a combination of the phases, including expansions or extensions, will exceed a specified threshold.
Government Notice No. R984 Activity No(s):	Details of Activity(ies) requiring a Scoping Report and EIA
4	THE DEVELOPMENT AND RELATED OPERATION OF FACILITIES OR INFRASTRUCTURE, FOR THE STORAGE, OR STORAGE AND HANDLING OF A DANGEROUS GOOD, WHERE SUCH STORAGE OCCURS IN CONTAINERS WITH A COMBINED CAPACITY OF MORE THAN 500 CUBIC METRES.
Government Notice No. R985 Activity No(s):	Details of Activity(ies) requiring S&EIr
N/A	N/A

2. ACTIVITY DESCRIPTION

(Cross out the appropriate box "☒" and provide a description where required).

(a) Is/was the project a new development or an upgrade of an existing development?		UPGRADE (EXPANSION OF AN EXISTING DIESEL DEPOT)

(b) Clearly describe the activity and associated infrastructure commenced with, indicating what has been completed, what still has to be completed and applicable commencement dates.

NOTE THAT THE SITE IS CURRENTLY USED AS A DIESEL DEPOT AND HAS A FACILITY FOR THE STORAGE OF APPROXIMATELY 79 000L OF HAZARDOUS MATERIAL.

THE EXISTING INFRASTRUCTURE ON SITE ALSO INCLUDES THE FOLLOWING:

- BUNDED WALLS AT THE HAZARDOUS MATERIAL STORAGE TANK IN ORDER TO LIMIT THE POSSIBLE POLLUTION OF SOIL / GROUNDWATER
- ENTRANCE AND ACCESS ROAD
- INTERNAL ROAD NETWORK
- PARKING BAY
- FENCING
- OFFICES
- ABLUTION FACILITY
- FRENCH DRAIN SYSTEM
- OIL SEPARATOR PIT AT THE SEPTIC TANK
- WATER SUPPLY
- ELECTRICITY SUPPLY
- ADDITIONAL TANK WAS ERECTED. HOWEVER, THIS TANK IS NOT COUPLED TO ANY PIPE NETWORK AND IS NOT OPERATIONAL AT PRESENT. A BUNDED WALL WAS CONSTRUCTED AT THE ADDITIONAL TANK.

ACTIVITIES STILL TO BE COMPLETED AND APPLICABLE COMMENCEMENT DATES:

- CONSTRUCTION OF ADDITIONAL TANKS FOR THE STORAGE OF HAZARDOUS MATERIAL AS WELL AS THEIR ASSOCIATED BUNDED WALLS (THE ADDITIONAL TANKS AND BUND WALLS WILL PROBABLY BE CONSTRUCTED WITHIN THE FOLLOWING FIVE YEARS)
- ADDITIONAL PARKING (WHEN / IF REQUIRED)
- ADDITIONAL INTERNAL ROADS (WHEN / IF REQUIRED)
- SITE EXIT (PROBABLY WITHIN THE FOLLOWING FIVE YEARS)

(c) Provide details of all components of the activity and attach diagrams (e.g. architectural drawings or perspectives, engineering drawings, process flow charts etc.).

Buildings		NO

Provide brief description:

NOTE:
ALTHOUGH BUILDINGS WERE CONSTRUCTED ON SITE, THE BUILDINGS ARE NOT ASSOCIATED WITH THE LISTED ACTIVITY AS SUCH.
SEE APPENDIX B FOR MORE INFORMATION ON THE BUILDINGS CONSTRUCTED AS PART OF THE PROJECT.

Infrastructure (e.g. roads, power and water supply/ storage)	YES	

Provide brief description:

NOTE:
THE FOLLOWING INFRASTRUCTURE IS ALREADY IN USE, AS PART OF THE OPERATIONAL ACTIVITIES (INCLUDING THE STORAGE OF HAZARDOUS MATERIAL TO A TOTAL VOLUME OF LESS THAN 80 000L) THAT ARE CURRENTLY UNDERTAKEN ON SITE:

- ENTRANCE AND ACCESS ROAD
- INTERNAL ROAD NETWORK
- PARKING BAY
- FENCING
- OFFICES
- ABLUTION FACILITY
- FRENCH DRAIN SYSTEM
- WATER SUPPLY
- ELECTRICITY SUPPLY

IN ADDITION, AN ADDITIONAL TANK (VOLUME OF MORE THAN 80 000L) WAS ERECTED. HOWEVER, THIS TANK IS NOT COUPLED TO ANY PIPE NETWORK AND IS NOT OPERATIONAL AT PRESENT.

ACTIVITIES TO BE UNDERTAKEN:

- ADDITIONAL INTERNAL ROADS WILL BE CONSTRUCTED.
- ADDITIONAL TANKS WILL BE ERECTED.

Processing activities (e.g. manufacturing, storage, distribution)		NO

Provide brief description:

N/A
NOTE THAT THE CURRENT PROJECT ENTAILS THE STORAGE OF HAZARDOUS MATERIAL (DIESEL) ON SITE.

THE APPLICANT PROVIDES ROAD TRANSPORTATION OF BULK FUEL PRODUCTS AND OPERATES ITS OWN FLEET OF TANKERS. THUS, THE MAIN PURPOSE OF THE PROJECT IS TO CONSTRUCT FUEL TANKS FOR THE STORAGE OF FUEL. THE STORED FUEL WILL MAINLY BE USED BY THE APPLICANT TO FILL THE TANKS OF ITS OWN FUEL TRANSPORTATION TRUCKS.

CURRENTLY, ONE TANK WITH A TOTAL CAPACITY OF LESS THAN 80 000L IS IN OPERATION. ANOTHER TANK (VOLUME OF MORE THAN 80 000L) WAS PLACED ADJACENT TO THE FIRST TANK. HOWEVER, THIS TANK IS NOT OPERATIONAL.

ACTIVITIES TO BE UNDERTAKEN:

- ADDITIONAL INTERNAL ROADS WILL BE CONSTRUCTED.
- ADDITIONAL TANKS WILL BE ERECTED.

Storage facilities for raw materials and products (e.g. volume and substances to be stored)

Provide brief description	YES	

THE CURRENT PROJECT ENTAILS THE STORAGE OF HAZARDOUS MATERIAL (DIESEL) ON

SITE.

THE APPLICANT PROVIDES ROAD TRANSPORTATION OF BULK FUEL PRODUCTS AND OPERATES ITS OWN FLEET OF TANKERS. THUS, THE MAIN PURPOSE OF THE PROJECT IS TO CONSTRUCT FUEL TANKS FOR THE STORAGE OF FUEL. THE STORED FUEL WILL MAINLY BE USED BY THE APPLICANT TO FILL THE TANKS OF ITS OWN FUEL TRANSPORTATION TRUCKS.
CURRENTLY, ONE TANK WITH A TOTAL CAPACITY OF LESS THAN 80 000L IS IN OPERATION. ANOTHER TANK (VOLUME OF MORE THAN 80 000L) WAS PLACED ADJACENT TO THE FIRST TANK. HOWEVER, THIS TANK IS NOT OPERATIONAL.

ACTIVITIES TO BE UNDERTAKEN:

- ADDITIONAL INTERNAL ROADS WILL BE CONSTRUCTED.
- ADDITIONAL TANKS WILL BE ERECTED.

Storage and treatment facilities for solid waste and effluent generated by the project		NO

Provide brief description

- ACCORDING TO THE INFORMATION AT HAND THE ESTIMATED SEWER RUNOFF IS CALCULATED TO 0.330 ℓ/S (PEAK WET WEATHER FLOW).
- DUE TO FAULTY FLOW OF MUNICIPAL SEWERAGE LINES, A 23M^3 UNDERGROUND SEPTIC TANK WAS INSTALLED IN 2009.
- THE APPLICANT CURRENTLY MAKES USE FROM A SEWERAGE REMOVAL COMPANY (JBX TRADING 1004 CC T/A JBX VACUUM & CLEANING) TO REMOVE SEWERAGE ON A MONTHLY BASIS.
- THE CONTENT OF THE SEPTIC TANK IS DISCHARGED INTO THE BLOEMSPRUIT WWTW. THE SAID WWTW IS OPERATED BY THE MANGAUNG METROPOLITAN MUNICIPALITY.
- MITIGATION MEASURES WILL BE IMPLEMENTED TO PREVENT CONTAMINATION OF LOCAL GROUNDWATER AND SURFACE WATER.
- THE EFFLUENT WILL NOT BE DISCHARGED ON SITE, AFTER IT IS DRAINED FROM THE SEPTIC TANK AND THEREFORE AUTHORISATION FOR SECTION 21(G) OF THE NATIONAL WATER ACT (ACT 36 OF 1998) IS NOT REQUIRED.
- THE APPLICANT AND ENVIROTECHSA HAVE REACHED AN AGREEMENT FOR THE REMOVAL OF HAZARDOUS WASTE.
- SHOULD THE EXISTING SEPTIC TANK BE OF INSUFFICIENT CAPACITY AN ADDITIONAL SEPTIC TANK MIGHT BE REQUIRED TO CONTROL THE SEWER RUNOFF GENERATED FROM THE PROPOSED EXTENSIONS.
- THE SIZE OF THE SEPTIC TANK, THE AMOUNT OF USE, AND THE TYPE OF MATERIAL DISCHARGED IS USED TO DETERMINE HOW OFTEN THE SEPTIC TANK WILL NEED TO BE DRAINED.
- THE APPLICANT WILL ENSURE THAT THE SEPTIC TANK IS APPROVED BY DWS.
- THE TANK IS SITED IN SUCH A WAY THAT IT DOES NOT CAUSE WATER OR OTHER POLLUTION.
- DUE TO THE NATURE OF THE PROJECT, AN OIL SEPARATOR PIT (WITH A CAPACITY

OF 12 000ℓ) WAS CONSTRUCTED IN 2018 TO SEPARATE OIL FROM THE WATER. THE WATER IS DIRECTED TO THE SEPTIC TANK AND THE OIL IS REMOVED AND DISPOSED OF IN AN ACCEPTABLE MANNER. PROPER MAINTENANCE IS CONDUCTED TO ENSURE THE SYSTEM FUNCTIONS EFFICIENTLY

THE ABOVE DOES NOT TRIGGER A LISTED ACTIVITY.

Other activities (e.g. water abstraction activities, crop planting activities)	YES	

Provide brief description

- SUFFICIENT SITE DRAINAGE SHOULD BE ESTABLISHED WHERE NECESSARY.
- THE EMISSIONS ASSOCIATED WITH THE PROPOSED ACTIVITY CAN BE DESCRIBED AS GENERAL VEHICLE EMISSIONS. HOWEVER, THESE EMISSIONS ARE NOT CONTROLLED BY ANY LEGISLATION.
- IN ADDITION, DUST CAN ALSO BE SEEN AS A POTENTIAL ISSUE DURING THE DEVELOPMENT AS WELL AS OPERATIONAL PHASE. THE FORMATION OF DUST WILL BE CONTROLLED BY DUST SUPPRESSION METHODS, WHEN REQUIRED. IN ADDITION, CONSTRUCTION ACTIVITIES WILL BE LIMITED TO DAY TIME HOURS.

3. ACTIVITY NEED AND DESIRABILITY

Describe the need and desirability of the activity:

THE APPLICANT PROVIDES ROAD TRANSPORTATION OF BULK FUEL PRODUCTS AND OPERATES ITS OWN FLEET OF TANKERS. THE APPLICANT IDENTIFIED THE NEED TO CONSTRUCT FUEL TANKS FOR THE STORAGE OF FUEL. THE STORED FUEL WILL MAINLY BE USED BY THE APPLICANT TO FILL THE TANKS OF ITS OWN FUEL TRANSPORTATION TRUCKS.

THE SITE IS EXTREMELY WELL LOCATED FOR THIS TYPE OF DEVELOPMENT GIVEN NUMEROUS FAVOURABLE LOCALITY ASPECTS SUCH AS;

a) ACCESS

EASY ACCESS TO THE SITE CAN BE OBTAINED FROM SAND DU PLESSIS AVENUE.

b) SURROUNDING LAND USES

THE PROPOSED DEVELOPMENT SITE IS SURROUNDED BY HOUSING, AGRICULTURAL AND LIGHT INDUSTRIAL LAND USES. THIS MAKES THE PROPOSED DEVELOPMENT SUITABLE TO THE AREA.

Indicate the benefits that the activity has/had for society in general and also indicate what benefits the activity has/had for the local communities where it is located:

SHOULD THE EXPANSION OF THE SAID DIESEL DEPOT NOT BE UNDERTAKEN, THE APPLICANT WILL HAVE TO BUY FUEL FROM OTHER COMPANIES (AT A HIGHER PRICE) AND THIS WILL HAVE COST IMPLICATIONS TO THE APPLICANT. THIS IN TURN, WILL HAVE COST IMPLICATIONS TO THE LOCAL COMMUNITY AS THE APPLICANT WILL HAVE TO SELL FUEL AT A HIGHER PRICE THAN ENVISAGED.

THUS, THE PROPOSED PROJECT WILL BENEFIT THE LOCAL COMMUNITY AS FUEL WILL

BE AVAILABLE AT A LOWER PRICE.

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the physical spatial size of the activity as well as associated infrastructure (footprints):	The physical size of the Diesel Depot is approximately 9 980 M^2. The construction of a second tank (Listed Activity) was undertaken on an area of 160 m^2. It is suggested that additional tanks will be constructed (1700m^2)

Note:
The storage of hazardous material less than 80 000L is not a Listed Activity.
One diesel storage tank with the capacity of 79 262L was erected in 2018.
Construction activities associated with the operation on the site during this period consisted of:

- Clearance of vegetation
- Construction of buildings, French and Septic Tanks.
- Construction of parking areas
- Construction of roads
- Erection of tank with the capacity of 179 262L.
- DUE TO THE NATURE OF THE PROJECT, AN OIL SEPARATOR PIT (WITH A CAPACITY OF 12 000ℓ) WAS CONSTRUCTED IN 2018 TO SEPARATE OIL FROM THE WATER. THE WATER IS DIRECTED TO THE SEPTIC TANK AND THE OIL IS REMOVED AND DISPOSED OF IN AN ACCEPTABLE MANNER. PROPER MAINTENANCE IS CONDUCTED TO ENSURE THE SYSTEM FUNCTIONS EFFICIENTLY
- These activities were limited to an area of 9 980 m^2.

No EA is required for any of the above mentioned activities.

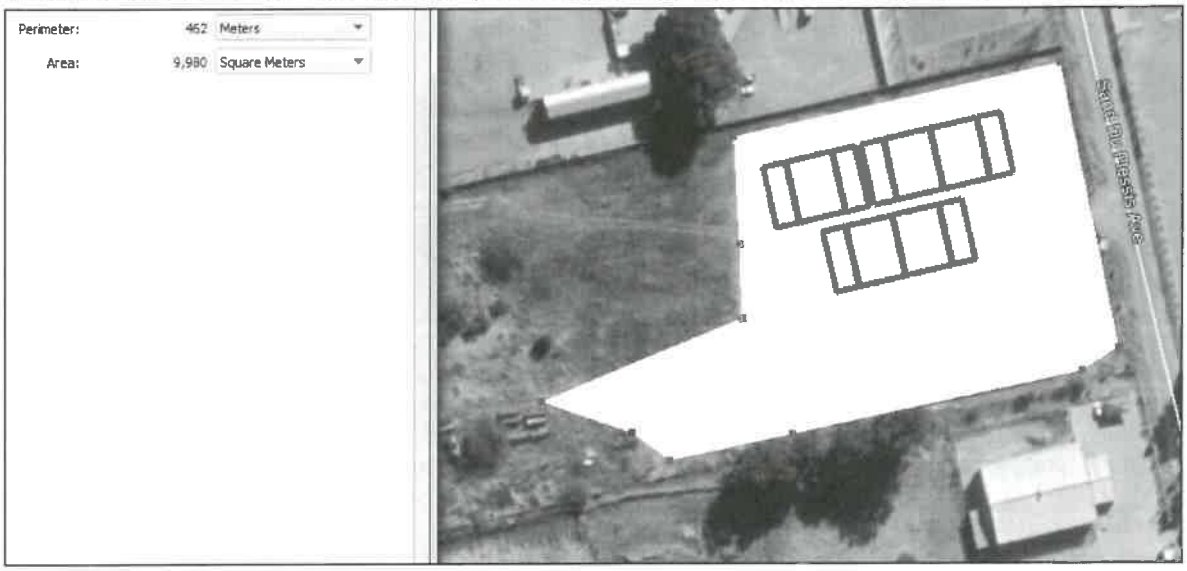
The erection of an additional diesel tank was undertaken in 2020. Please note that this tank is not operational and not coupled to any pipe network.
The said tank was placed adjacent to the existing (operational) tank in an area that was already cleared of vegetation.

In addition, it is proposed to construct additional sets of tanks.
The tanks will occupy an area of 2 160 m^2 in total. It should be noted that the area required for the said tanks are already cleared of vegetation, due to previous activities undertaken on site.

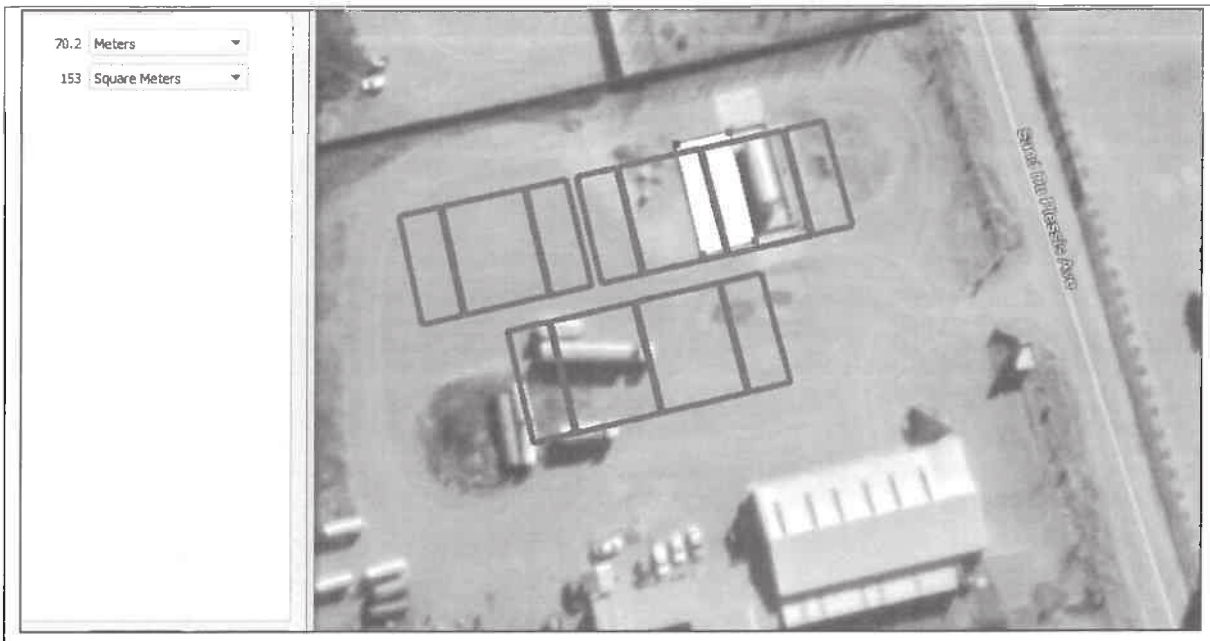
The first hazardous material storage tank with a capacity less than 80 000L does not

trigger a Listed Activity.

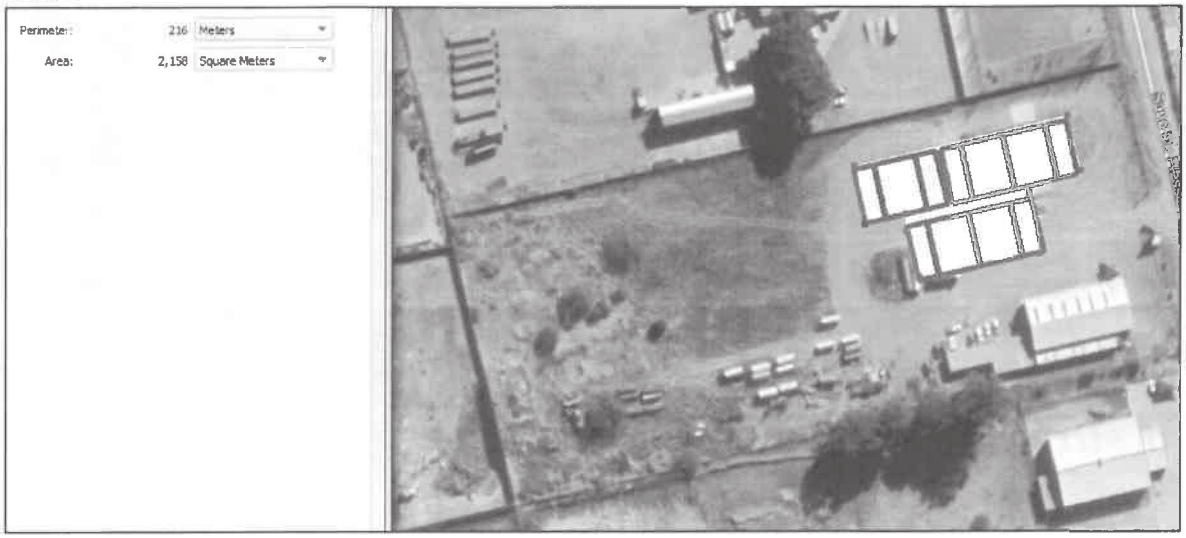
The indicated area was developed as part of the above mentioned project.



Position of the second storage tank that was erected on site is indicated in the map below. Please note that the tank was erected on an area that was already cleared of vegetation. The tank is not coupled to any of the pipe networks and is not operational.



It is proposed that additional tanks will be erected, as indicated on the following map:



Indicate the area that has been transformed / cleared to allow for the activity as well as associated infrastructure	THE PHYSICAL SIZE OF THE DIESEL DEPOT IS APPROXIMATELY 9 980 M^2. THE CONSTRUCTION OF A SECOND TANK (LISTED ACTIVITY, UNAUTHORISED CONSTRUCTION) WAS UNDERTAKEN ON AN AREA OF 160 M^2. THIS AREA IS INCLUDED IN THE ABOVE MENTIONED 9 980 M^2. IT IS SUGGESTED THAT ADDITIONAL TANKS WILL BE

	CONSTRUCTED (1700M^2). THIS AREA IS INCLUDED IN THE ABOVE MENTIONED 9 980 M^2.
Total area (sum of the footprint area and transformed area)	THE UNAUTHORISED ACTIVITIES WERE UNDERTAKEN ON 160M2. THE ABOVE MENTIONED AREA WAS CLEARED OF VEGETATION AS PART OF THE CONSTRUCTION AND OPERATION PHASE OF THE DIESEL DEPOT (LESS THAN 80 000L OF DIESEL ARE STORED ON SITE). AN ADDITIONAL 1 700M2 WILL BE REQUIRED TO HOST ADDITIONAL TANKS. IT SHOULD BE NOTED THAT ALL THE INFRASTRUCTURE (EXISITING AND PROPOSED) WILL BE CONTAINED WITHIN AN AREA OF 9 980 M^2.

5. SITE ACCESS

Was there an existing access road?	YES	
If no, what was the distance over which the new access road was built?	ACCESS TO THE SITE IS CURRENTLY OBTAINED VIA SAND DU PLESSIS AVENUE	

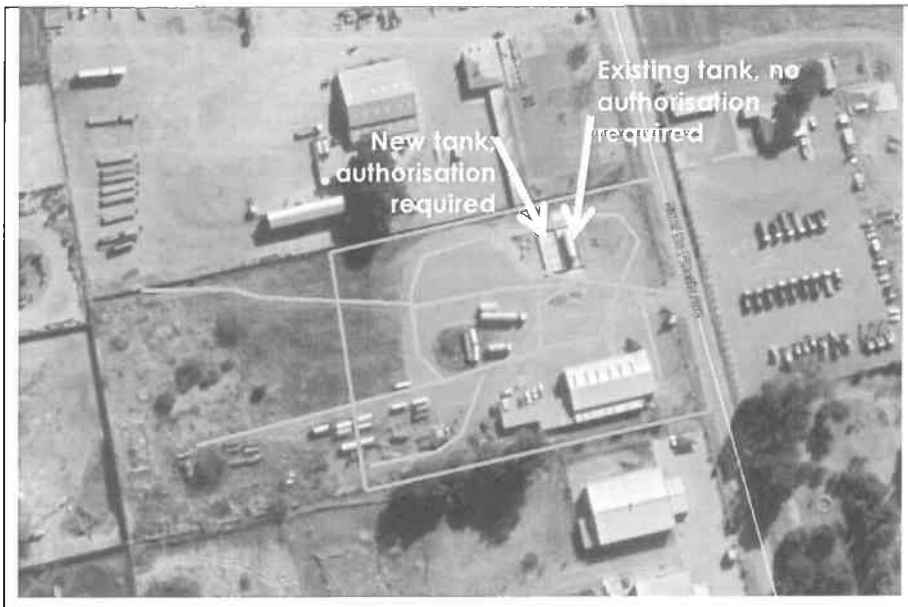
Describe the type of access road constructed: [indicate the position of the access road on the site plan]

AN EXISTING ROAD IS CURRENTLY USED TO GAIN ACCESS TO THE SITE.

THE INTERNAL ROADS OF THE CEMETERY WILL BE PAVED IN CERTAIN AREAS WHERE HIGH TRAFFIC VOLUMES WILL BE PRESENT AND SMALLER DIRT ROADS WILL BE CONSTRUCTED BETWEEN BLOCKS (LESS TRAFFIC ANTICIPATED IN THESE SECTIONS).

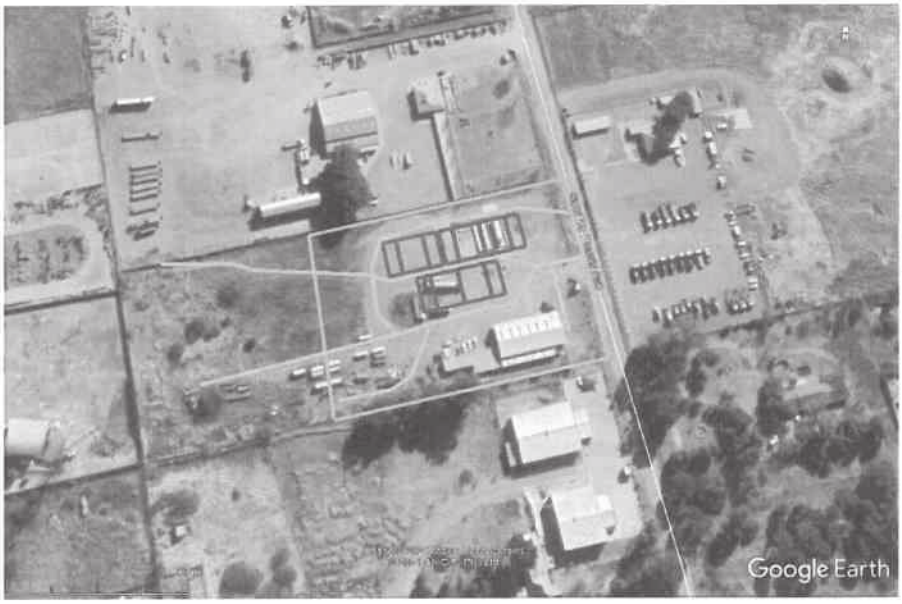
AMPLE PARKING WILL BE ALLOWED FOR.

PLEASE SEE THE FOLLOWING DRAWING FOR MORE IN FORMATION ON THE CURRENT ROUTE USED TO GAIN ACCESS TO THE SITE AS WELL AS THE PROPOSED ALTERNATIVE ROUTE TO BE USED IN FUTURE).



DEVELOPMENT AREA

EXISTING ROAD NETWORK



DEVELOPMENT AREA

EXISTING ROAD NETWORK

EXISTING AND FUTURE FUEL TANKS

THE UPGRADING AND / OR CONSTRUCTION OF THE ACCESS / EXIT ROAD AS WELL AS THE CONSTRUCTION OF ADDITIONAL INTERNAL ROADS DOES NOT REQUIRE ENVIRONMENTAL AUTHORISATION AS NO LISTED ACTIVITIES ARE TRIGGERED, SHOULD BE ABOVE BE ADHERED TO.

6. SITE PHOTOGRAPHS

Colour photographs of the site and its surroundings (taken of the site and from the site), both before (if available) and after the activity commenced, with a description of each photograph must be attached to this application. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide past and recent aerial photographs. it should be supplemented with additional photographs of relevant features on the site. Date of photographs must be included. Photographs must be attached under Appendix D to this form.

7. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

Please list all legislation, policies and/or guidelines that were or are relevant to this activity.

LEGISLATION	ADMINISTERING AUTHORITY	TYPE Permit/ license/ authorization/comment	DATE (if already obtained):
NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998)	DESTEA	AUTHORISATION: EXPANSION OF A DIESEL DEPOT	CURRENT APPLICATION
MINERAL AND PETROLEUM RESOURCES D EVELOPMENT ACT, 2002 (ACT 28 OF 2002)	DMR	AUTHORISATION: SELLING OF FUEL	OBTAINED

POLICY/ GUIDELINES	ADMINISTERING AUTHORITY
MANGAUNG METROPOLITAN MUNICIPAL BYLAWS	MANGAUNG METROPOLITAN MUNICIPALITY

SECTION C: DESCRIPTION OF RECEIVING ENVIRONMENT

Site/Area Description

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

Section C Copy No. (e.g. 1, 2, or 3): [ ]

1. GRADIENT OF THE SITE

Indicate the general gradient of the site(s) (cross out the appropriate box).

Flat	FLATTER THAN 1:10 SITE ELEVATION VARIES BETWEEN 1362 AND 1364M ABOVE SEA LEVEL	1:10 – 1:5	Steeper than 1:5

2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site (cross out ("☒") the appropriate box (es).

Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	Open valley	PLAIN	Undulating plain/low hills	Dune	Sea-front	Other

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on or near any of the following [cross out ("☒") the appropriate boxes]?

Shallow water table (less than 1.5m deep)		NO	
Seasonally wet soils (often close to water bodies)		NO	
Unstable rocky slopes or steep slopes with loose soil		NO	
Dispersive soils (soils that dissolve in water)		NO	
Soils with high clay content		NO	
Any other unstable soil or geological feature		NO	
An area sensitive to erosion		NO	
If any of the answers to the above are "YES" or "UNSURE", specialist input may be requested by the Department. 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.			

4. SURFACE WATER

Indicate the surface water present on and or adjacent to the site and alternative sites (cross out ("☒") the appropriate boxes)?

Perennial River		NO	
Non-Perennial River		NO	
Permanent Wetland		NO	
Seasonal Wetland		NO	
Artificial Wetland		NO	
Estuarine / Lagoonal wetland		NO	

5. VEGETATION AND GROUNDCOVER

5.1 VEGETATION / GROUNDCOVER (PRE-COMMENCEMENT)
Cross out ("☒") the block or describe (where required) the vegetation types / groundcover present on the site before commencement of the activity.

Indigenous Vegetation - good condition		Indigenous Vegetation with scattered aliens		Indigenous Vegetation with heavy alien infestation	
Describe the vegetation type above:		Describe the vegetation type above:		Describe the vegetation type above:	
Provide ecosystem status for above:		Provide ecosystem status for above:		Provide Ecosystem status for above:	
Indigenous Vegetation in an ecological corridor or along a soil boundary / interface		Veld dominated by alien species		Distinctive soil conditions (e.g. Sand over shale, quartz patches, limestone, alluvial deposits, termitaria etc.) – describe	
Bare soil		Building or other structure		Sport field	
OTHER (DESCRIBE BELOW)		Cultivated land		Paved surface	

DUE TO THE ACTIVITIES UNDERTAKEN ON SITE PRIOR TO THE ERECTION OF THE SECOND HAZARDOUS MATERIAL CONTAINER, THE SITE WAS IN A DEGRADED CONDITION AND THE NATURAL VEGETATION COMPOSITION HAS BEEN TRANSFORMED TO A LARGE DEGREE.

THE ENTIRE PROPOSED DEVELOPMENT SITE IS HIGHLY DISTURBED AND TRANSFORMED BY PAST AND PRESENT HUMAN ACTIVITIES AND IS ENTIRELY SURROUNDED BY URBAN SPRAWL. IT WAS IDENTIFIED THAT NO SUITABLE HABITAT, ON AND SURROUNDING THE PROPOSED DEVELOPMENT SITE FOR ANY RED DATA FAUNAL SPECIES AND NO RUPICULOUS (LIVING AMONG, INHABITING, OR GROWING ON ROCKS), ARBOREAL (PERTAINING TO MOVING ABOUT, LIVING IN OR AMONG TREES) OR WETLAND HABITATS ARE PRESENT. THE SITE WAS FOUND TO BE DISTURBED AND THAT THE PROPOSED DEVELOPMENT WOULD NOT HAVE A NEGATIVE EFFECT IN ON ANY RED DATA FAUNAL SPECIES OR ANY OTHER FAUNAL SPECIES FOUND ON SITE. NO NATURAL / INDIGENOUS VEGETATION IS LOCATED ON SITE.

5.2. VEGETATION / GROUNDCOVER (POST-COMMENCEMENT)
Cross out ("☒") the block or describe (where required) the vegetation types / groundcover present on the site after commencement of the activity.

Indigenous Vegetation - good condition		Indigenous Vegetation with scattered aliens		Indigenous Vegetation with heavy alien infestation	
Describe the vegetation type above:		Describe the vegetation type above:		Describe the vegetation type above:	
Provide ecosystem status for above:		Provide ecosystem status for above:		Provide Ecosystem status for above:	
Indigenous Vegetation in an ecological corridor or along a soil boundary / interface		Veld dominated by alien species		Distinctive soil conditions (e.g. Sand over shale, quartz patches, limestone, alluvial deposits, termitaria etc.) – describe	
Bare soil		Building or other structure		Sport field	
OTHER (DESCRIBE BELOW)		Cultivated land		Paved surface	

DUE TO THE EXISTING LAND USE AND CURRENT ACTIVITIES UNDERTAKEN ON SITE, THE SITE IS IN A DEGRADED CONDITION AND THE NATURAL VEGETATION COMPOSITION HAS BEEN TRANSFORMED TO A LARGE DEGREE.

THE ENTIRE PROPOSED DEVELOPMENT SITE IS HIGHLY DISTURBED AND TRANSFORMED BY PAST AND PRESENT HUMAN ACTIVITIES AND IS ENTIRELY SURROUNDED BY URBAN SPRAWL. IT WAS IDENTIFIED THAT NO SUITABLE HABITAT, ON AND SURROUNDING THE PROPOSED DEVELOPMENT SITE FOR ANY RED DATA FAUNAL SPECIES AND NO RUPICULOUS (LIVING AMONG, INHABITING, OR GROWING ON ROCKS), ARBOREAL (PERTAINING TO MOVING ABOUT, LIVING IN OR AMONG TREES) OR WETLAND HABITATS ARE PRESENT. THE SITE WAS FOUND TO BE DISTURBED AND THAT THE PROPOSED DEVELOPMENT WOULD NOT HAVE A NEGATIVE EFFECT IN ON ANY RED DATA FAUNAL SPECIES OR ANY OTHER FAUNAL SPECIES FOUND ON SITE. NO NATURAL / INDIGENOUS VEGETATION IS LOCATED ON SITE.

Please note: The Department may request specialist input/studies depending on the nature of the vegetation type / groundcover and impact(s) of the activity/ies. To assist with the identification of the vegetation type and ecosystem status consult http://bgis.sanbi.org or BGIShelp@sanbi.org. Information is also available on compact disc (cd) from the Biodiversity-GIS Unit, Ph (021) 799 8698. This information may be updated from time to time and it is the applicant/ EAP's responsibility to ensure that the latest version is used.

5.3 VEGETATION / GROUNDCOVER MANAGEMENT

Describe any mitigation/management measures that were adopted and the adequacy of these:

STORMWATER CONTROL MEASURES WERE IMPLEMENTED, WHERE NECESSARY. ADDITIONAL STORMWATER CONTROL MEASURES WILL BE IMPLEMENTED DURING THE FUTHER DEVELOPMENT OF THE SITE, SHOULD THE PROJECT BE APPROVED BY DESTEA.

6. LAND USE CHARACTER OF SURROUNDING AREA (PRE-COMMENCEMENT)

Cross out ("☒") the block that reflects the past land uses and/or prominent features that occur/red within +/- 500m radius of the site and neighbouring properties if these are located beyond 500m of the site. Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and impact(s) of the activity/ies.

UNTRANSFORMED AREA	LOW DENSITY RESIDENTIAL	MEDIUM DENSITY RESIDENTIAL	High density residential	Informal residential
RETAIL	COMMERCIAL & WAREHOUSING	LIGHT INDUSTRIAL	MEDIUM INDUSTRIAL	Heavy industrial
Power station	OFFICE/CONSULTING ROOM	Military or police base/station/compound	Casino/entertainment complex	Tourism & Hospitality facility
Open cast mine	Underground mine	Spoil heap or slimes dam	Quarry, sand or borrow pit	Dam or reservoir
Hospital/medical center	School	Tertiary education facility	Church	Old age home
Sewage treatment plant	Train station or shunting yard	Railway line	Major road (4 lanes or more)	Airport
Harbour	Sport facilities	Golf course	Polo fields	FILLING STATION
Landfill or waste treatment site	Plantation	Agriculture	River, Stream Or Wetland	Nature conservation area
Mountain, koppie or ridge	Museum	Historical Building	Graveyard	Archaeological site
Other land uses (describe):				

NOTE:

1. **LOW DENSITY RESIDENTIAL / MEDIUM DENSITY RESIDENTIAL**
   MOST HOUSING FACILITIES WITHIN THE AREA CAN BE CLASSIFIED AS LOW DENSITY RESIDENTIAL, AS THE PROPOSED DIESEL DEPOT IS SITUATED IN WITHIN THE ESTOIRE SMALL HOLDINGS AREA. HOWEVER, ONE SET OF TOWNHOUSES (MEDIUM DENSITY RESIDENTIAL) ARE LOCATED APPROXIMATELY 250M FROM THE SITE.

2. **COMMERCIAL & WAREHOUSING**
   A FEW COMMERCIAL & WAREHOUSE FACILITIES ARE LOCATED WITHIN 500M FROM THE SITE.

3. **LIGHT INDUSTRIAL / MEDIUM INDUSTRIAL**
   LIGHT TO MEDIUM INDUSTRIAL FACILITIES ARE LOCATED WITHIN 500M OF THE SITE

4. **FILLING STATION**
   THE CURRENT PROJECT ENTAILS THE STORAGE OF HAZARDOUS MATERIAL (DIESEL) ON SITE. HOWEVER, THE FUEL TO BE STORED ON SITE IS NOT FOR COMMERCIAL USE AND THEREFORE IT IS NOT ANTICIPATED THAT THE CURRENT PROJECT WILL HAVE A DETRIMENTAL IMPACT ON THE FILLING STATION LOCATED ADJACENT TO THE N8.

5. **RETAIL**
   A GROCERY STORE IS LOCATED APPROXIMATELY 550M FROM THE CURRENT STUDY SITE.

IT IS NOT EXPECTED THAT THE PROPOSED PROJECT WILL HAVE A NEGATIVE IMPACT ON ANY OF THE ABOVE MENTIONED LAND USES, AS THE PROJECT SITE IS ALREADY OPERATING AS A DIESEL DEPOT (FOR THE SOLE USE OF THE APPLICANT).

7. REGIONAL PLANNING CONTEXT

Is/was the activity permitted in terms of the property's existing land use rights? Please explain

THE LAND-USE OF THE PROPERTY IN REVIEW IS CURRENTLY ZONED AS SPECIAL BUSINESS: TYPE 2. LAND USE FOR PURPOSES OF SPECIAL BUSINESS: TYPE 2 WILL BE LOST ON THE DEVELOPMENT PROPERTY.

THE PROPOSED DEVELOPMENT SITE IS SURROUNDED BY HOUSING, AGRICULTURAL AND LIGHT INDUSTRIAL LAND USES. THIS MAKES THE PROPOSED DEVELOPMENT SUITABLE TO THE AREA.

AN APPLICATION FOR REZONING IN TERMS OF SPLUMA AS WELL AS THE MUNICIPAL

LAND USE MANAGEMENT SCHEME WILL BE SUBMITTED AS PART OF THIS PROJECT.			
Is/was the activity in line with the following?			
o Provincial Spatial Development Framework (PSDF)			N/A
THE FREE STATE PROVINCE DOES NOT HAVE AN APPROVED PSDF. AN APPLICATION FOR REZONING IN TERMS OF SPLUMA AS WELL AS THE MUNICIPAL LAND USE MANAGEMENT SCHEME WILL BE SUBMITTED AS PART OF THIS PROJECT.			
o Urban edge / Edge of Built Environment for the area	YES		
THE PROJECT ENTAILS THE EXPANSION OF ACTIVITIES ALREADY UNDERTAKEN ON SITE.			
o Integrated Development Plan of the Local Municipality	YES		
THE PROJECT ENTAILS THE EXPANSION OF ACTIVITIES ALREADY UNDERTAKEN ON SITE.			
o Spatial Development Framework of the Local Municipality	YES		
THE PROJECT ENTAILS THE EXPANSION OF ACTIVITIES ALREADY UNDERTAKEN ON SITE.			
o Approved Structure Plan of the Municipality	YES		
THE PROJECT ENTAILS THE EXPANSION OF ACTIVITIES ALREADY UNDERTAKEN ON SITE.			
o Any other Plans	YES		
THE PROPOSED PROJECT WILL NOT COMPROMISE THE INTEGRITY OF THE EXISTING ENVIRONMENTAL MANAGEMENT PRIORITIES FOR THE AREA, SHOULD THE CONTRACTORS ADHERE TO THE CONDITIONS STIPULATED IN THIS REPORT, ADDITIONAL SPECIFICATIONS TO BE PROVIDED IN THE EMPR AS WELL AS BEST PRACTICES. • SPECIFIC MEASURES TO BE IMPLEMENTED WILL INCLUDE, BUT NOT LIMITED TO: • STORMWATER MEASURES • EROSION CONTROL • LIMITING THE REMOVAL OF VEGETATION • LIMITING THE FORMATION OF DUST • MONITORING GROUNDWATER AND SURFACE WATER FOR POSSIBLE CONTAMINATION THEREOF DUE TO OPERATIONAL ACTIVITIES AT THE DIESEL DEPOT, SHOULD UNDERGROUND STORAGE TANKS BE USED IN FUTURE. • ETC. REFER TO THE EMPR FOR MORE INFORMATION ON MEASURES TO BE IMPLEMENTED.			

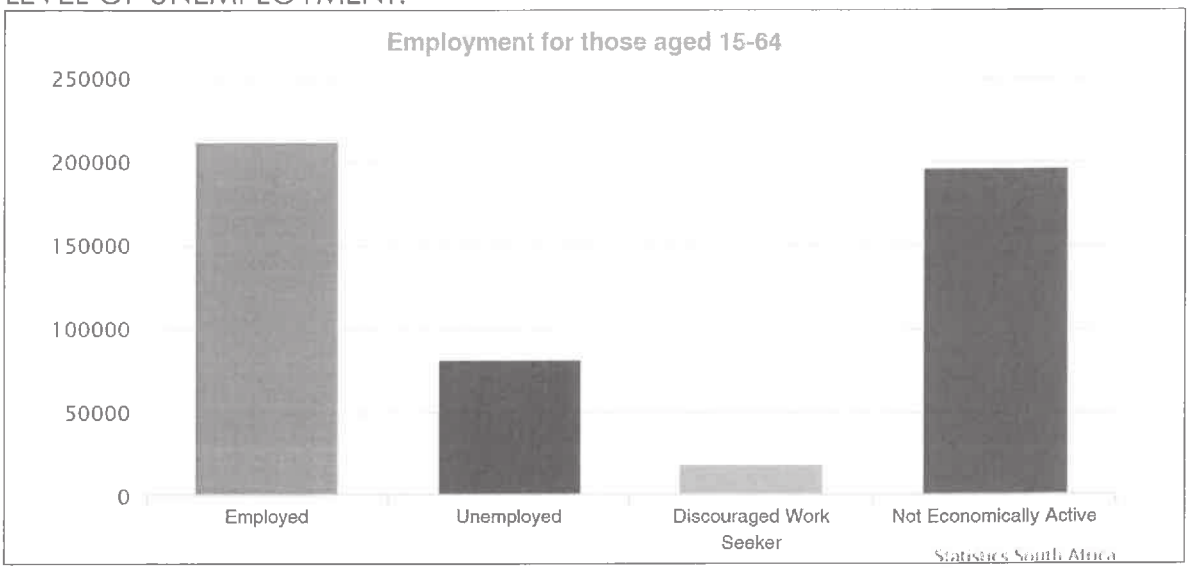
8 SOCIO-ECONOMIC CONTEXT

8.1 SOCIO-ECONOMIC CONTEXT (PRE-COMMENCEMENT)

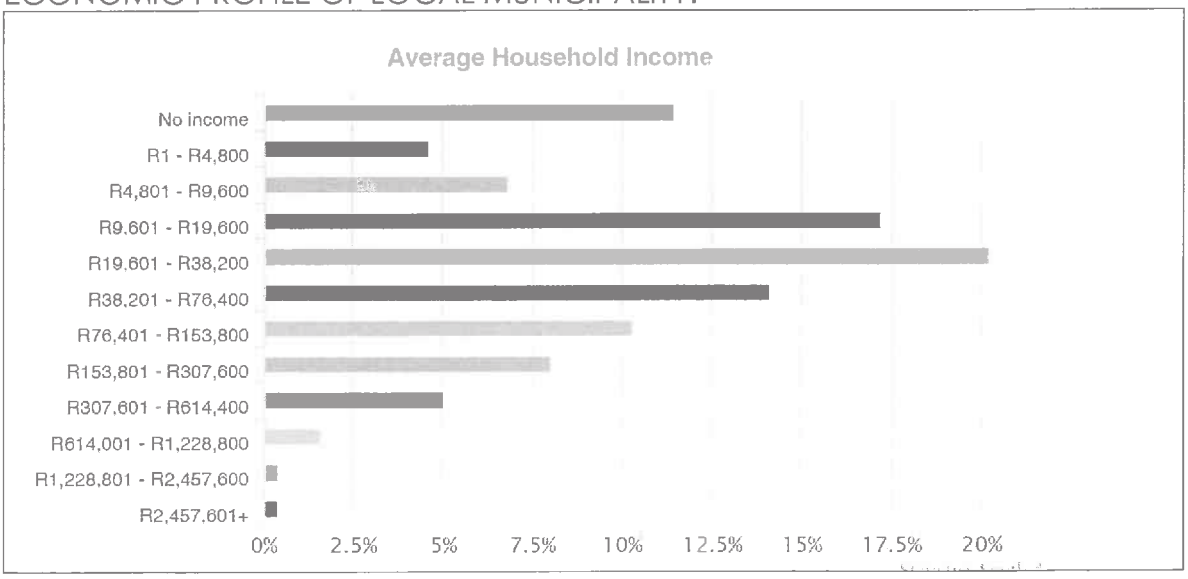
Describe the pre-commencement social and economic characteristics of the community in order to provide baseline information.

NOTE:
THE INFORMATION IN THIS SECTION WAS OBTAINED FROM THE FOLLOWING WEB ADDRESS:
HTTP://WWW.STATSSA.GOV.ZA/?PAGE_ID=1021&ID=MANGAUNG-MUNICIPALITY

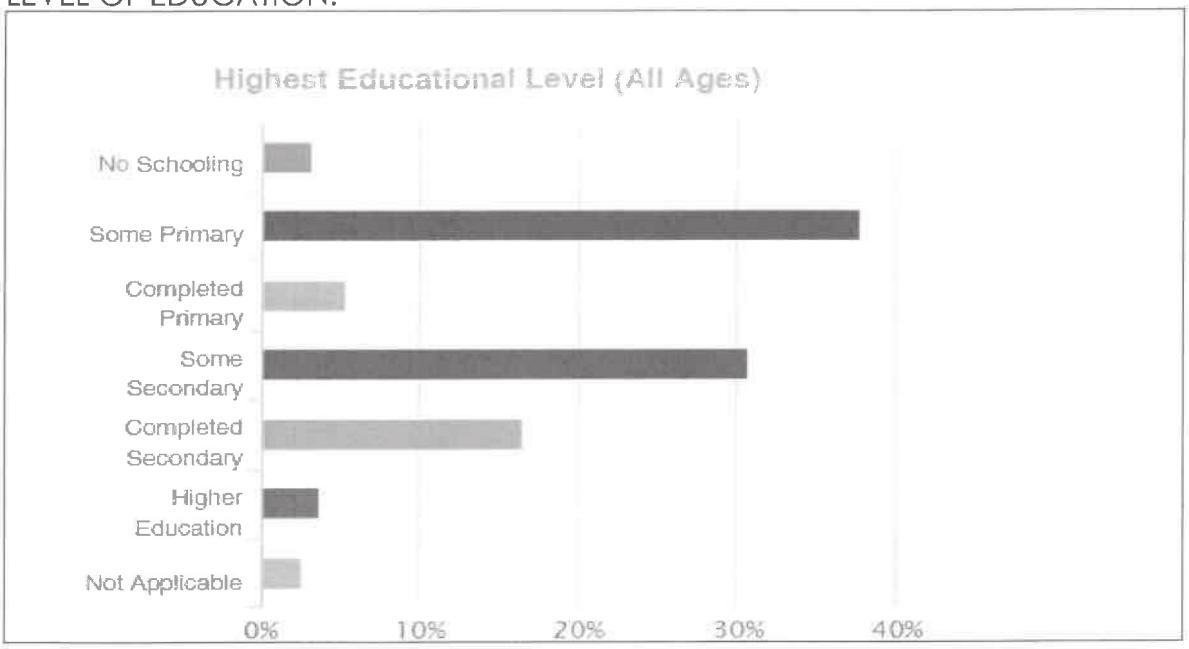
LEVEL OF UNEMPLOYMENT:



ECONOMIC PROFILE OF LOCAL MUNICIPALITY:



LEVEL OF EDUCATION:



8.2 SOCIO-ECONOMIC CONTEXT (POST-COMMENCEMENT)
Describe the post commencement social and economic characteristics of the community in order to determine any change.

THE SOCIO-ECONOMIC CHARACTER OF THE AREA CAN BE SUMMARISED AS:

MANGAUNG METROPOLITAN MUNICIPALITY HAS AN UNEMPLOYMENT RATE OF 27.7% (STATS SA, 2011). BELOW ARE SOME STATISTICS RELATING TO THE LEVEL OF EDUCATION IN THE MMM AREA.

- NO SCHOOLING 3,3%
- SOME PRIMARY 37,7%
- COMPLETED PRIMARY 5,4%
- SOME SECONDARY 30,6%
- COMPLETED SECONDARY 16,5%
- HIGHER EDUCATION 3,7% (DATA DERIVED FROM: STATS SA, 2011).
-

THE LAND-USE IS CURRENTLY ZONED AS SPECIAL BUSINESS: TYPE 2. THE PROPOSED NEW PROJECT WILL PROVIDE ADDITIONAL EMPLOYMENT OPPORTUNITIES AND WILL THEREFORE HAVE A POSITIVE IMPACT ON THE SOCIO-ECONOMIC CHARACTER OF THE NEARBY COMMUNITY.

NOTE THAT THE PROPOSED DEPOT WILL MAINLY BE UTILIZED FOR FILLING OF THE APPLICANT'S OWN FLEET OF TANKERS. THUS, NO NEARBY FILLING STATIONS WILL BE NEGATIVELY AFFECTED DUE TO THE PROPOSED PROJECT.

CULTURAL/HISTORICAL FEATURES

Were there any signs or evidence (unearthed during construction) of culturally or historically significant elements including archaeological or palaeontological sites, on or in close proximity to the site?		NO
If YES, explain:	**SUMMARY OF HERITAGE REPORT** THE SITE IS LOCATED IN SAND DU PLESSIS AVENUE. THE ESTOIRE RESIDENTIAL SMALLHOLDINGS HAVE BEEN ESTABLISHED MORE THAN SIXTY YEARS AGO, BUT MANY OF THE ORIGINAL RESIDENTIAL STRUCTURES HAVE BEEN REPLACED BY COMMERCIAL AND INDUSTRIAL PROPERTIES. THE AFFECTED AREA COVERS AN AREA OF DEGRADED LAND, CONTAINING SEVERAL MODERN COMMERCIAL BUILDING STRUCTURES. NO HISTORICALLY SIGNIFICANT BUILDING STRUCTURE OLDER THAN 60 YEARS OF AGE IS PRESENT AT THE SITE. EXISTING ROADS ALREADY PROVIDE ACCESS TO THE SITE. THE PROPOSED DEVELOPMENT WILL TAKE PLACE ON LAND FORMERLY ALTERED BY MODERN INDUSTRIAL / COMMERCIAL ACTIVITIES. POTENTIAL ARCHAEOLOGICAL IMPACT AT THE PROPOSED SITE IS CONSIDERED TO BE NON-EXISTENT. UNDERLYING GEOLOGY AT THE SITE CONSIST OF POTENTIALLY FOSSIL-BEARING BEAUFORT GROUP (ADELAIDE SUBGROUP) STRATA. SUPERFICIAL SEDIMENTS ARE MADE UP OF RESIDUAL SOILS OF VARYING DEPTH THAT ARE NOT CONSIDERED TO BE PALAEONTOLOGICALLY SIGNIFICANT. THE LIKELIHOOD OF PALAEONTOLOGICAL IMPACT ON BEDROCK SEDIMENTS UNDERNEATH THE DEGRADED OVERBURDEN IS CONSIDERED TO BE EXTREMELY LOW GIVEN LATTER'S OVERALL DEPTH, THE LOW TOPOGRAPHY TERRAIN AND THE FACT THAT NO SUBSURFACE DEVELOPMENT IS PLANNED FOR THIS PROJECT. DURING THE SITE VISIT, NO GRAVES OR ITEMS OF ARCHAEOLOGICAL OR PALAEONTOLOGICAL SIGNIFICANCE WHERE OBSERVED. SHOULD ANY ITEMS OF ARCHAEOLOGICAL OR PALAEONTOLOGICAL SIGNIFICANCE BE UNEARTHED OR FOUND ON THE SITE DURING CONSTRUCTION ALL ACTIVITIES WILL CEASE AND A SPECIALIST WILL BE APPOINTED TO INVESTIGATE THE FINDS. SAHRA WILL ALSO BE NOTIFIED THEREOF. WITH THE ABOVE IN MIND, IT IS RECOMMENDED THAT THE PROPOSED DEVELOPMENT IS EXEMPTED FROM A PHASE 1 HERITAGE IMPACT ASSESSMENT.	

If uncertain, the Department may request that specialist input be provided to establish whether such possibilities occurred on or close to the site.	
Briefly explain the findings of the specialist if one was already appointed:	**SUMMARY OF HERITAGE REPORT** THE SITE IS LOCATED IN SAND DU PLESSIS AVENUE. THE ESTOIRE RESIDENTIAL SMALLHOLDINGS HAVE BEEN ESTABLISHED MORE THAN SIXTY YEARS AGO, BUT MANY OF THE ORIGINAL RESIDENTIAL STRUCTURES HAVE BEEN REPLACED BY COMMERCIAL AND INDUSTRIAL PROPERTIES. THE AFFECTED AREA COVERS AN AREA OF DEGRADED LAND, CONTAINING SEVERAL MODERN COMMERCIAL BUILDING STRUCTURES. NO HISTORICALLY SIGNIFICANT BUILDING STRUCTURE OLDER THAN 60 YEARS OF AGE IS PRESENT AT THE SITE. EXISTING ROADS ALREADY PROVIDE ACCESS TO THE SITE. THE PROPOSED DEVELOPMENT WILL TAKE PLACE ON LAND FORMERLY ALTERED BY MODERN INDUSTRIAL / COMMERCIAL ACTIVITIES. POTENTIAL ARCHAEOLOGICAL IMPACT AT THE PROPOSED SITE IS CONSIDERED TO BE NON-EXISTENT. UNDERLYING GEOLOGY AT THE SITE CONSIST OF POTENTIALLY FOSSIL-BEARING BEAUFORT GROUP (ADELAIDE SUBGROUP) STRATA. SUPERFICIAL SEDIMENTS ARE MADE UP OF RESIDUAL SOILS OF VARYING DEPTH THAT ARE NOT CONSIDERED TO BE PALAEONTOLOGICALLY SIGNIFICANT. THE LIKELIHOOD OF PALAEONTOLOGICAL IMPACT ON BEDROCK SEDIMENTS UNDERNEATH THE DEGRADED OVERBURDEN IS CONSIDERED TO BE EXTREMELY LOW GIVEN LATTER'S OVERALL DEPTH, THE LOW TOPOGRAPHY TERRAIN AND THE FACT THAT NO SUBSURFACE DEVELOPMENT IS PLANNED FOR THIS PROJECT. DURING THE SITE VISIT, NO GRAVES OR ITEMS OF ARCHAEOLOGICAL OR PALAEONTOLOGICAL SIGNIFICANCE WHERE OBSERVED. SHOULD ANY ITEMS OF ARCHAEOLOGICAL OR PALAEONTOLOGICAL SIGNIFICANCE BE UNEARTHED OR FOUND ON THE SITE DURING CONSTRUCTION ALL ACTIVITIES WILL CEASE AND A SPECIALIST WILL BE APPOINTED TO INVESTIGATE THE FINDS. SAHRA WILL ALSO BE NOTIFIED THEREOF. WITH THE ABOVE IN MIND, IT IS RECOMMENDED THAT THE PROPOSED DEVELOPMENT IS EXEMPTED FROM A PHASE 1 HERITAGE IMPACT ASSESSMENT.
Were any buildings or structures older than 60 years affected in any way?	NO
Was it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	NO
If yes, please submit or, make sure that the applicant or a specialist submit the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application.	

SECTION D: PRELIMINARY IMPACT ASSESSMENT

Please note, the impacts identified below refer to general impacts commonly associated with development activities. The list below is not exhaustive and may need to be supplemented. Where required, please append the information on any additional impacts to this application.

1. WASTE, EFFLUENT AND EMISSION MANAGEMENT

(a) Solid waste management

Did/does the activity produce any general waste (e.g. domestic-, commercial-, certain industrial		NO

waste, including building rubble also known as solid waste) during the construction phase and/or the operational phase?		

If yes, briefly describe what type of waste was produced (i.e. green waste, building rubble, etc.) in which phase.

PLEASE NOTE NO LARGE QUANTITIES OF WASTE (BUILDING RUBBLE) WAS PRODUCED DURING THE CONSTRUCTION OF THE BUNDED WALL / ERECTION OF THE TANK.

IT IS NOT FORESEEN THAT LARGE QUANTITIES OF CONSTRUCTION WASTE WILL BE PRODUCES (AND DISPOSED OF) DURING THE CONSTRUCTION PHASE, DUE TO THE FACT THAT CONSTRUCTION ACTIVITIES WILL BE LIMITED TO THE CONSTRUCTION OF:

- BUNDED WALLS
- ERECTION OF TANKS
- ROADS
- PARKING AREAS
- SITE EXIT
- STORM WATER CONTROL MEASURES
- OIL SEPARATOR PIT AT THE SEPTIC TANK

SHOULD ANY SOLID WASTE BE GENERATED BY THE PROPOSED PROJECT, THE WASTE WILL BE CLASSIFIED AND DISPOSED OF AT THE NEAREST AUTHORIZED LANDFILL SITE.

What quantity was/is produced during the construction period?	TO DATE: 200 KG	ON COMPLETION (WITH ALL THE ADDITIONAL TANKS): 1 TONNES
What was/is the estimated quantity that will be produced per month during the operational phase?	200 LITRES	0.2 M^3

Did/does the activity produce any hazardous waste (e.g. chemical, medical waste, infectious, nuclear etc.) during the construction and/or the operational phase?		NO

If yes, briefly describe what type of waste was produced (i.e. infectious waste, medical waste, etc.) in which phase.

- DUE TO THE NATURE OF THE PROPOSED DEVELOPMENT AN OIL SEPARATOR PIT IS IN OPERATION TO SEPARATE OIL FROM THE WATER. THE WATER IS DIRECTED TO THE SEPTIC TANK AND THE OIL IS REMOVED AND DISPOSED OF IN AN ACCEPTABLE MANNER. PROPER MAINTENANCE IS CONDUCTED TO ENSURE THE SYSTEM FUNCTIONS EFFICIENTLY

What quantity was/is produced during the construction period?	TO DATE: 200 KG	ON COMPLETION (WITH ALL THE ADDITIONAL TANKS): 1 TONNES
What was/is the estimated quantity that will be produced per month during the operational phase?	200 LITRES	0.2 M^3

Where and how was/is waste treated / disposed of (describe each waste stream)?

NOTE:
GENERAL WASTE IS COLLECTED IN WASTE BINS SITUATED ON VARIOUS POSITIONS ON SITE. THESE BINS ARE EMPTIED REGULARLY / WHEN NECESSARY AND DISPOSED OF AT AN AUTHORISED LANDFILL SITE IN BLOEMFONTEIN.

- ACCORDING TO THE INFORMATION AT HAND THE ESTIMATED SEWER RUNOFF IS CALCULATED TO 0.330 ℓ/S (PEAK WET WEATHER FLOW).

• DUE TO FAULTY FLOW OF MUNICIPAL SEWERAGE LINES, A 23M^3 UNDERGROUND SEPTIC TANK WAS INSTALLED IN 2009. • THE APPLICANT CURRENTLY MAKES USE FROM A SEWERAGE REMOVAL COMPANY (JBX TRADING 1004 CC T/A JBX VACUUM & CLEANING) TO REMOVE SEWERAGE ON A MONTHLY BASIS. • THE CONTENT OF THE SEPTIC TANK IS DISCHARGED INTO THE BLOEMSPRUIT WWTW. THE SAID WWTW IS OPERATED BY THE MANGAUNG METROPOLITAN MUNICIPALITY. • MITIGATION MEASURES WILL BE IMPLEMENTED TO PREVENT CONTAMINATION OF LOCAL GROUNDWATER AND SURFACE WATER. • THE EFFLUENT WILL NOT BE DISCHARGED ON SITE, AFTER IT IS DRAINED FROM THE SEPTIC TANK AND THEREFORE AUTHORISATION FOR SECTION 21(G) OF THE NATIONAL WATER ACT (ACT 36 OF 1998) IS NOT REQUIRED. • THE APPLICANT AND ENVIROTECHSA HAVE REACHED AN AGREEMENT FOR THE REMOVAL OF HAZARDOUS WASTE. • SHOULD THE EXISTING SEPTIC TANK BE OF INSUFFICIENT CAPACITY AN ADDITIONAL SEPTIC TANK MIGHT BE REQUIRED TO CONTROL THE SEWER RUNOFF GENERATED FROM THE PROPOSED EXTENSIONS. • THE SIZE OF THE SEPTIC TANK, THE AMOUNT OF USE, AND THE TYPE OF MATERIAL DISCHARGED IS USED TO DETERMINE HOW OFTEN THE SEPTIC TANK WILL NEED TO BE DRAINED. • THE APPLICANT WILL ENSURE THAT THE SEPTIC TANK IS APPROVED BY DWS. • THE TANK IS SITED IN SUCH A WAY THAT IT DOES NOT CAUSE WATER OR OTHER POLLUTION.		
Has the municipality or relevant authority confirmed that sufficient capacity exist for treating / disposing of the solid waste to be generated by this activity(ies)? If yes, provide written confirmation from municipality or relevant authority	PORTION 1 OF PLOT42 IS ZONED AS RESIDENTIAL 2 AND THEREFORE MANGAUNG METROPOLITAN MUNICIPALITY SHOULD MAKE PROVISION FOR THE DISPOSAL	

	OF THE ABOVE MENTIONED WASTE.	
Does/did the activity produce solid waste that was/will be treated and/or disposed of at another facility other than into a municipal waste stream?		NO
If yes, did/has this facility confirmed that sufficient capacity exist for treating / disposing of the solid waste to be generated by this activity(ies)? Provide written confirmation from the facility and provide the following particulars of the facility:	N/A	
Did/does the facility have an operating license? (If yes, please attach a copy of the license.)	N/A	

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

(b) Effluent

Did/does the activity produce sewage and or any other effluent?	YES	

- ACCORDING TO THE INFORMATION AT HAND THE ESTIMATED SEWER RUNOFF IS CALCULATED TO 0.330 ℓ/S (PEAK WET WEATHER FLOW).
- DUE TO FAULTY FLOW OF MUNICIPAL SEWERAGE LINES, A 23M^3 UNDERGROUND SEPTIC TANK WAS INSTALLED IN 2009.
- THE APPLICANT CURRENTLY MAKES USE FROM A SEWERAGE REMOVAL COMPANY (JBX TRADING 1004 CC T/A JBX VACUUM & CLEANING) TO REMOVE SEWERAGE ON A MONTHLY BASIS.
- THE CONTENT OF THE SEPTIC TANK IS DISCHARGED INTO THE BLOEMSPRUIT WWTW. THE SAID WWTW IS OPERATED BY THE MANGAUNG METROPOLITAN MUNICIPALITY.
- MITIGATION MEASURES WILL BE IMPLEMENTED TO PREVENT CONTAMINATION OF LOCAL GROUNDWATER AND SURFACE WATER.
- THE EFFLUENT WILL NOT BE DISCHARGED ON SITE, AFTER IT IS DRAINED FROM THE SEPTIC TANK AND THEREFORE AUTHORISATION FOR SECTION 21(G) OF THE NATIONAL WATER ACT (ACT 36 OF 1998) IS NOT REQUIRED.
- THE APPLICANT AND ENVIROTECHSA HAVE REACHED AN AGREEMENT FOR THE REMOVAL OF HAZARDOUS WASTE.
- SHOULD THE EXISTING SEPTIC TANK BE OF INSUFFICIENT CAPACITY AN ADDITIONAL SEPTIC TANK MIGHT BE REQUIRED TO CONTROL THE SEWER RUNOFF GENERATED FROM THE PROPOSED EXTENSIONS.
- THE SIZE OF THE SEPTIC TANK, THE AMOUNT OF USE, AND THE TYPE OF MATERIAL DISCHARGED IS USED TO DETERMINE HOW OFTEN THE SEPTIC TANK WILL NEED TO

BE DRAINED.

- THE APPLICANT WILL ENSURE THAT THE SEPTIC TANK IS APPROVED BY DWS.
- THE TANK IS SITED IN SUCH A WAY THAT IT DOES NOT CAUSE WATER OR OTHER POLLUTION.
- DUE TO THE NATURE OF THE PROPOSED DEVELOPMENT AN OIL SEPARATOR PIT SHOULD BE CONSTRUCTED TO SEPARATE OIL FROM THE WATER. THE WATER MUST BE DIRECTED TO THE SEPTIC TANK AND THE OIL SHOULD BE REMOVED AND DISPOSED OF IN AN ACCEPTABLE MANNER. PROPER MAINTENANCE MUST BE CONDUCTED TO ENSURE THE SYSTEM FUNCTIONS EFFICIENTLY.

What was/is the estimated quantity produced per month?	190	m^3 (0.33 x 60 x 60x 8 x 20)
Was/is the effluent treated and/or disposed of in a municipal system?	YES	

If Yes, did/has the Municipality or relevant authority confirmed that sufficient unallocated capacity exist for treating / disposing of the sewage or any other effluent generated by this activity(ies)? Provide written confirmation from the Municipality or relevant authority.

THE PROPOSED ACTIVITY ITSELF WILL NOT PRODUCE ANY EFFLUENT THAT WILL BE TREATED AND / OR DISPOSED OF. HOWEVER, SEWAGE WILL BE HANDLED AS FOLLOWS:

- ACCORDING TO THE INFORMATION AT HAND THE ESTIMATED SEWER RUNOFF IS CALCULATED TO 0.330 ℓ/S (PEAK WET WEATHER FLOW).
- DUE TO FAULTY FLOW OF MUNICIPAL SEWERAGE LINES, A 23M^3 UNDERGROUND SEPTIC TANK WAS INSTALLED IN 2009.
- THE APPLICANT CURRENTLY MAKES USE FROM A SEWERAGE REMOVAL COMPANY (JBX TRADING 1004 CC T/A JBX VACUUM & CLEANING) TO REMOVE SEWERAGE ON A MONTHLY BASIS.
- THE CONTENT OF THE SEPTIC TANK IS DISCHARGED INTO THE BLOEMSPRUIT WWTW. THE SAID WWTW IS OPERATED BY THE MANGAUNG METROPOLITAN MUNICIPALITY.
- IN ADDITION, DUE TO THE NATURE OF THE PROPOSED DEVELOPMENT AN OIL SEPARATOR PIT SHOULD BE CONSTRUCTED TO SEPARATE OIL FROM THE WATER. THE WATER MUST BE DIRECTED TO THE SEPTIC TANK AND THE OIL SHOULD BE REMOVED AND DISPOSED OF IN AN ACCEPTABLE MANNER. PROPER MAINTENANCE MUST BE CONDUCTED TO ENSURE THE SYSTEM FUNCTIONS EFFICIENTLY.

Was/is any effluent produced be treated and/or disposed of on site?		NO

If yes, briefly describe the nature of the effluent and how it was/will be disposed of:

- ACCORDING TO THE INFORMATION AT HAND THE ESTIMATED SEWER RUNOFF IS CALCULATED TO 0.330 ℓ/S (PEAK WET WEATHER FLOW).
- DUE TO FAULTY FLOW OF MUNICIPAL SEWERAGE LINES, A 23M^3 UNDERGROUND SEPTIC TANK WAS INSTALLED IN 2009.
- THE APPLICANT CURRENTLY MAKES USE FROM A SEWERAGE REMOVAL COMPANY (JBX TRADING 1004 CC T/A JBX VACUUM & CLEANING) TO REMOVE SEWERAGE ON A MONTHLY BASIS.

• THE CONTENT OF THE SEPTIC TANK IS DISCHARGED INTO THE BLOEMSPRUIT WWTW. THE SAID WWTW IS OPERATED BY THE MANGAUNG METROPOLITAN MUNICIPALITY. • IN ADDITION, DUE TO THE NATURE OF THE PROPOSED DEVELOPMENT AN OIL SEPARATOR PIT SHOULD BE CONSTRUCTED TO SEPARATE OIL FROM THE WATER. THE WATER MUST BE DIRECTED TO THE SEPTIC TANK AND THE OIL SHOULD BE REMOVED AND DISPOSED OF IN AN ACCEPTABLE MANNER. PROPER MAINTENANCE MUST BE CONDUCTED TO ENSURE THE SYSTEM FUNCTIONS EFFICIENTLY.		
Did/does the activity produce effluent that was/will be treated and/or disposed of at another facility?		NO NOTE: THE LISTED ACTIVITY (DEVELOPMENT OF INFRASTRUCTURE FOR THE STORAGE OF HAZARDOUS MATERIAL) DOES NOT PRODUCE EFFLUENT. HOWEVER, EFFLUENT ON SITE IS CURRENTLY HANDLED AS FOLLOWS: • DUE TO FAULTY FLOW OF MUNICIPAL SEWERAGE LINES, A 23M^3 UNDERGROUND SEPTIC TANK WAS INSTALLED IN 2009. • THE APPLICANT CURRENTLY MAKES USE FROM A SEWERAGE REMOVAL COMPANY (JBX TRADING 1004 CC T/A JBX VACUUM & CLEANING) TO REMOVE SEWERAGE ON A MONTHLY BASIS. • THE CONTENT OF THE SEPTIC TANK IS DISCHARGED INTO THE BLOEMSPRUIT WWTW. IN ADDITION, DUE TO THE NATURE OF THE PROPOSED DEVELOPMENT AN OIL SEPARATOR PIT SHOULD BE CONSTRUCTED TO SEPARATE OIL FROM THE WATER. THE WATER MUST BE DIRECTED TO THE SEPTIC TANK AND THE OIL SHOULD BE REMOVED AND DISPOSED OF IN AN ACCEPTABLE MANNER. PROPER MAINTENANCE MUST BE CONDUCTED TO ENSURE THE SYSTEM FUNCTIONS EFFICIENTLY.
If yes, did/has this facility confirmed that sufficient capacity exist(ed) for treating / disposing of the liquid effluent generated by this activity(ies)? Provide written confirmation from the facility and provide the following particulars of the facility:	YES	
Does the facility have an operating license? (If yes, please attach a copy of the license.)	YES	
Facility name:	BLOEMSPRUIT WWTW	

Contact Person:	GENERAL MANAGER: WATER AND SANITATION: LUZUKO NTABEZO		
Postal address:	P.O. BOX 3704, BLOEMFONTEIN		
		Postal code:	9300
Telephone:	051 4058212	Cell:	
E-mail:	LUZUKO.NTLABEZO@MANGAUNG.CO.ZA	Fax:	0524058707

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

(c) Emissions into the atmosphere

Did/does the activity produce emissions that will be disposed of into the atmosphere?		NO THE EMISSIONS ASSOCIATED WITH THE ACTIVITIES UNDERTAKEN ON SITE CAN BE DESCRIBED AS GENERAL VEHICLE EMISSIONS. IN ADDITION, DUST CAN ALSO BE SEEN AS A POTENTIAL ISSUE DURING THE DEVELOPMENT AS WELL AS OPERATIONAL PHASE. HOWEVER, THESE EMISSIONS ARE NOT CONTROLLED BY ANY LEGISLATION. THE FORMATION OF DUST WILL BE CONTROLLED BY DUST SUPPRESSION METHODS, WHEN REQUIRED. IN ADDITION, CONSTRUCTION ACTIVITIES WILL BE LIMITED TO DAY TIME HOURS.
If yes, did/does it require approval in terms of relevant legislation? If yes, attach a copy to this application		N/A

Describe the emissions in terms of type and concentration and how it was/will be treated/mitigated:

THE EMISSIONS ASSOCIATED WITH THE ACTIVITY CAN BE DESCRIBED AS GENERAL VEHICLE EMISSIONS. IN ADDITION, DUST CAN ALSO BE SEEN AS A POTENTIAL ISSUE DURING THE DEVELOPMENT AS WELL AS OPERATIONAL PHASE. HOWEVER, THESE EMISSIONS ARE NOT CONTROLLED BY ANY LEGISLATION. THE FORMATION OF DUST WAS CONTROLLED BY DUST SUPPRESSION METHODS DURING THE CONSTRUCTION OF INTERNAL ROADS AND FENCING, WHEN REQUIRED. IN ADDITION, CONSTRUCTION ACTIVITIES WERE LIMITED TO DAY TIME HOURS.

SHOULD ENVIRONMENTAL AUTHORIZATION BE OBTAINED, THE FOLLOWING SHOULD BE TAKEN INTO CONSIDERATION:

- THE EMISSIONS ASSOCIATED WITH THE PROPOSED PROJECT CAN BE DESCRIBED AS GENERAL VEHICLE EMISSIONS.
- IN ADDITION, DUST CAN ALSO BE SEEN AS A POTENTIAL ISSUE DURING THE DEVELOPMENT AS WELL AS OPERATIONAL PHASE.
- HOWEVER, THESE EMISSIONS ARE NOT CONTROLLED BY ANY LEGISLATION.
- VEHICLES AND CONSTRUCTION EQUIPMENT SHOULD BE SERVICED ON A REGULAR BASIS IN ORDER TO REDUCE EMISSIONS DURING OPERATION.
- THE FORMATION OF DUST WILL BE CONTROLLED BY DUST SUPPRESSION METHODS, WHEN REQUIRED.
- IN ADDITION, CONSTRUCTION ACTIVITIES WILL BE LIMITED TO DAY TIME HOURS.

(d) Describe any mitigation/management measures that were adopted and the adequacy of these:

THE FORMATION OF DUST WAS CONTROLLED BY DUST SUPPRESSION METHODS DURING THE CONSTRUCTION OF THE BUNDED WALL, WHEN REQUIRED. IN ADDITION, CONSTRUCTION ACTIVITIES WERE LIMITED TO DAY TIME HOURS.

NO COMPLAINTS WERE RECEIVED FROM ADJACENT PROPERTY OWNERS, AND THEREFORE IT IS BELIEVED THAT THE MITIGATION / MANAGEMENT MEASURES WERE ADEQUATELY ADOPTED.

PROPER MITIGATION MEASURES WILL BE IMPLEMENTED SHOULD THE PROJECT BE APPROVED, IN ORDER TO LIMIT:

- DUST FORMATION
- EMISSIONS (GENERAL)
- NOISE

2. WATER USE

(a) Please indicate the source(s) of water for the activity by crossing out ("☒") the appropriate box(es)

MUNICIPAL	Water Board	Groundwater	River, Stream, Dam or Lake	Other	The activity did/does not use water

If water was/is extracted from a groundwater source, river, stream, dam, lake or any other natural feature, please indicate the volume that was/is extracted per month:

NOTE:
POTABLE WATER WAS MADE AVAILABLE TO EMPLOYEES DURING THE CONSTRUCTION OF THE BUNDED WALL & ERECTION OF THE ADDITIONAL TANK. POTABLE WATER WILL ALSO BE AVAILABLE, SHOULD THE FURTHER EXPANSION OF THE DIESEL DEPOT BE UNDERTAKEN (SHOULD ENVIRONMENTAL AUTHORISATION BE OBTAINED).

UNKNOWN m^3

Please provide proof of assurance of water supply eg. letter of confirmation from Municipality/water user associations, yield of borehole etc.

THE ANNUAL AVERAGE DAILY DEMAND WAS CALCULATED AT 21.65KL PER DAY.

THE MAIN PIPELINE CURRENTLY SUPPLYING WATER TO THE ERF IS A 350MM DIAMETER PIPE, WHICH SHOULD BE ABLE TO SUPPLY SUFFICIENT WATER TO THE PROJECT.

SEE APPENDIX P FOR MORE INFORMATION

Did/does the activity require a water use permit / license from DWAF? If yes, attach a copy to this application		NO

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

NO NATURAL WATER COURSES WILL BE IMPACTED ON AS PART OF THE PROJECT.

WATER TO BE UTILISED ON SITE WILL BE OBTAINED FROM A MUNICIPAL SOURCE.

EFFLUENT WILL NOT BE DISCHARGED ON SITE, AFTER IT IS DRAINED FROM THE SEPTIC

TANK AND THEREFORE AUTHORISATION FOR SECTION 21(G) OF THE NATIONAL WATER ACT (ACT 36 OF 1998) IS NOT REQUIRED.

(b) Describe any mitigation/management measures that were adopted and the adequacy of these:

ACTIVITIES UNDERTAKEN TO DATE:

- SUFFICIENT VOLUME OF POTABLE WATER IS AVAILABLE TO EMPLOYEES.

3. POWER SUPPLY

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

THIS AREA FALLS WITHIN THE ELECTRICITY SUPPLY AREA OF CENTLEC. THE DEVELOPER APPLIED FOR THE REZONING OF THIS STAND FOR SPECIAL USE AS A DIESEL DEPOT. THE ESTIMATED CONNECTION SIZE REQUIRED IS A 150KVA THREE PHASE LOW VOLTAGE CONNECTION.
THIS PLOT DOES NOT HAVE AN ELECTRICAL SERVICE CONNECTION. CENTLEC CONFIRMED THAT SUFFICIENT CAPACITY IS AVAILABLE ON THE EXISTING NETWORK WHICH FEED FROM ESTOIRE DISTRIBUTION CENTRE. THE DEVELOPER SHALL BEAR THE FULL COST OF ANY RELOCATION OF ANY ELECTRICAL INFRASTRUCTURE OR ELECTRICAL SERVICES.

Has the Municipality or relevant service provider confirmed that sufficient electricity capacity (i.e. generation, supply and transmission) exist for activity(ies)? If yes, provide written confirmation from Municipality or relevant service provider. THE EXISTING NETWORK IS CURRENTLY SUPPLIED BY ESTOIRE DC. THE PROPOSED SPECIAL USE (DIESEL DEPOT) DOES NOT HAVE A SERVICE CONNECTION. CENTLEC CONFIRMED THAT SUFFICIENT CAPACITY IS AVAILABLE ON THE EXISTING NETWORK WHICH FEED FROM ESTOIRE DISTRIBUTION CENTRE. SEE APPENDIX 1 FOR MORE INFORMATION ON THE POWER SUPPLY TO THE SITE.	YES	

If power supply was/is not available, where was/is it sourced from?
N/A

(b) Describe any mitigation/management measures that were adopted and the adequacy of these:

N/A

4. ENERGY EFFICIENCY

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

LIGHTING WILL BE ENERGY EFFICIENT WITH LED LAMPS.

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

LIGHTING WILL BE ENERGY EFFICIENT WITH LED LAMPS.

5. NOISE IMPACTS

(a) Did/does the activity result in any noise impacts?	YES	
If yes, please describe and indicate the measures implemented to mitigate and manage these impacts?		
ACTIVITIES UNDERTAKEN TO DATE:		

- NOISE ASSOCIATED WITH THE ACTIVITIES UNDERTAKEN TO DATE WAS FROM THE USE OF VEHICLES / TRUCKS.
- HEAVY VEHICLES USED DURING THE CONSTRUCTION PHASE WERE EQUIPPED WITH SILENCERS.
- IN ADDITION, CONSTRUCTION ACTIVITIES WERE LIMITED TO DAY TIME HOURS.

ACTIVITIES TO BE UNDERTAKEN:

- NOISE ASSOCIATED WITH THE DEVELOPMENT ACTIVITIES WILL BE FROM GENERAL VEHICULAR ACTIVITIES AS WELL AS BUILDING ACTIVITIES.
- HEAVY VEHICLES USED DURING THE CONSTRUCTION PHASE WILL BE EQUIPPED WITH SILENCERS.
- IN ADDITION, CONSTRUCTION ACTIVITIES WILL BE LIMITED TO DAY TIME HOURS.
- DURING THE OPERATIONAL PHASE, NOISE MAY BE ASSOCIATED WITH GENERAL ACTIVITIES AS WELL AS VEHICULAR ACTIVITIES (HEAVY VEHICLES ACCESSING THE SITE).
- THE REQUIREMENTS AS SET OUT IN THE OSH ACT WILL BE IMPLEMENTED TO ENSURE THAT THE PROPOSED ACTIVITIES WILL NOT HAVE AN UNFAVORABLE IMPACT ON NEIGHBOURING RESIDENTS / BUSINESSES.

Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential noise impact(s) of the activity/ies.

6. VISUAL IMPACTS

(a) Did/does the activity result in any visual impacts?	YES	
If yes, please describe and indicate the measures implemented to mitigate and manage these impacts?		

THE FOLLOWING IMPACTS ON THE AESTHETICS OF THE PROPOSED SITE HAVE BEEN IDENTIFIED AND MAY OCCUR AS A RESULT OF THE CONSTRUCTION AND OPERATION PHASE OF THE DEVELOPMENT;

- THE LAND-USE IS CURRENTLY ZONED AS SPECIAL BUSINESS: TYPE 2.
- THE EXISTING LAND USES IN THE AREA RANGES FROM RESIDENTIAL, AGRICULTURAL AND LIGHT INDUSTRIAL.
- THE EXPANSION OF THE FUEL DEPOT WILL NOT HAVE A LARGE IMPACT ON THE AESTHETICS OF THE SURROUNDING AREAS, DUE TO THE CURRENT ACTIVITIES BEING UNDERTAKEN IN THE NEARBY AREA.
- DURING THE CONSTRUCTION PHASE OF THE DEVELOPMENT THERE WILL BE A NEGATIVE IMPACT ON THE AESTHETICS OF THE SURROUNDING LAND OWNERS.
- DURING THE CONSTRUCTION PHASE THERE MAY ALSO BE A NEGATIVE VISUAL IMPACT ON SURROUND LAND AND ROAD USERS.
- THE ENVIRONMENTAL SIGNIFICANCE OF IMPACTS ON THE AESTHETICS RELATED TO THE PROPOSED DEVELOPMENT CAN QUALITATIVELY BE DESCRIBED AS LOW-MEDIUM. THE POSSIBLE IMPACT IS OF A VERY LOW ORDER WITHOUT MITIGATION AND THEREFORE LIKELY TO HAVE VERY LITTLE REAL EFFECT. MITIGATION MEASURES SHOULD BE INVESTIGATED AND MANAGEMENT MEASURES SHOULD BE IMPLEMENTED IN ORDER TO REDUCE RISK WHERE POSSIBLE. A MONITORING SYSTEM CAN ALSO BE IMPLEMENTED TO FURTHER REDUCE RISK.

(b) Did/does the activity result in potential lighting impacts at night?		NO
If yes, please describe and indicate the measures implemented to mitigate and manage these impacts?		

THE LIGHTNING SYSTEM CURRENTLY ON SITE CAN BE SUMMARIZED AS DOWNWARD SPRAY / FLOOD LIGHTS, AS IT MINIMISE THE POSSIBLE LIGHTNING IMPACT. ADDITIONAL LIGHTS (IF ANY) WILL ALSO BE FIXED DOWNWARDS, IN ORDER TO LIMIT THE IMPACT THEREOF TO THE ADJACENT PROPERTY.

(c) Were/are there any alternatives available to address this impact?		NO

If yes, please describe these alternatives?
LIGHTS WILL BE FIXED DOWNWARDS, IN ORDER TO LIMIT THE IMPACT THEREOF TO THE ADJACENT PROPERTY.

Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential visual impact(s) of the activity/ies.

7. SOCIO-ECONOMIC IMPLICATIONS OF THE ACTIVITY

(a) What was/is the expected capital value of the activity on completion?	CURRENTLY R4 500 000 ADDITIONAL R2 000 000 PER ADDITIONAL TANK
(b) What was/is the expected yearly income or contribution to the economy that will be generated by or as a result of the activity?	R 25 000 000, SHOULD ALL PROPOSED TANKS BE IN OPERATION
(c) Did/does the activity contribute to service infrastructure?	NO. THE APPLICANT WILL BE ABLE TO PROVIDE DIESEL TO ITS OWN FLEET OF TANKS.
(d) How many permanent new employment opportunities were created?	4 (AT THE EXISTING, OPERATIONAL TANK – NOTE THAT THE SECOND TANK IS NOT OPERATIONAL),
(e) What was/is the expected current value of the employment opportunities to date?	R1 440 000
(f) What percentage of this accrued to previously disadvantaged individuals?	75%

How was (is) this (to be) ensured and monitored (please explain):
THE ABOVE WAS RECEIVED FROM THE APPLICANT

8. PRELIMINARY IMPACT ASSESSMENT

Briefly describe the impacts (as appropriate), significance rating of impacts and significance rating of impacts after mitigation. This must include an assessment of the significance of all impacts. Please note: This is a preliminary impact statement. The Department may request specialist input/studies depending on the type and nature of the impact(s) of the activity/ies.

PRELIMINARY IMPACT ASSESSMENT PHASE: COMPLIANCE AND MONITORING				
ACTIVITY	**IMPACT SUMMARY**	**SIGNIFICANCE WITHOUT MITIGATION**	**MITIGATION MEASURE**	**SIGNIFICANCE WITH MITIGATION**
RECORD KEEPING OF COMPLIANCE AND MONITORING REPORTS	**DIRECT IMPACTS:** • POLLUTION OF SOIL • LOSS OF VEGETATION • LOSS OF SOIL • GENERATION OF WASTE **INDIRECT IMPACTS:** • EROSION • GROUNDWATER POLLUTION • ALTERATION OF SOIL CHARACTERISTICS DUE TO POSSIBLE SPILLAGES / DISTURBANCES • ESTABLISHMENT OF ALIEN VEGETATION **CUMULATIVE IMPACTS:** • CONTAMINATION OF SOIL AND GROUNDWATER AS A RESULT OF	MEDIUM-HIGH NEGATIVE	1. THE APPLICANT WILL ENSURE THAT THE CONTRACTORS ADHERE TO THE RECOMMENDATIONS OF THE EMPR AND CONDITIONS OF THE ENVIRONMENTAL AUTHORISATION DURING CONSTRUCTION. 2. AN ENVIRONMENTAL CONTROL OFFICER (ECO) WILL BE APPOINTED TO MONITOR THE CONSTRUCTION PHASE. NOTE THAT THE ECO MAY BE APPOINTED SEPARATELY OR CAN BE PART OF THE CONTRACTOR'S TEAM. 3. REGULAR MONITORING AND / OR SPOT INSPECTIONS AT LEAST EVERY FORTNIGHT DURING THE CONSTRUCTION PHASE IS RECOMMENDED. 4. INSPECTIONS SHOULD BE DOCUMENTED AND ANY SHORTCOMINGS ADDRESSED IMMEDIATELY. 5. A REPORT WILL BE PROVIDED BY THE INDEPENDENT ECO TO THE CONTRACTOR UPON COMPLETION THEREOF. THE FINDINGS THEREOF SHOULD BE MADE AVAILABLE TO THE COMPETENT AUTHORITY (FOR EXAMPLE DESTEA, DWS), SHOULD IT BE REQUESTED. 6. ANY EMERGENCY OR UNFORESEEN IMPACT WILL BE REPORTED TO THE	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT PHASE: COMPLIANCE AND MONITORING				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
	CHEMICAL / HAZARDOUS SUBSTANCES / POLLUTION / SEWAGE LEAKS.		RELEVANT ENVIRONMENTAL DEPARTMENT WITHIN 24 HOURS AFTER IDENTIFICATION FOR TELEPHONIC APPROVAL AND WILL BE CONFIRMED IN WRITING. 7. DURING THE OPERATIONAL PHASE THE FUEL TANKS, WASH BAY AND ASSOCIATED INFRASTRUCTURE MUST BE ROUTINELY AUDITED AND MAINTENANCE SCHEDULE ADJUSTED ACCORDINGLY IN ORDER TO PREVENT LEAKAGE / POLLUTION. 8. MATERIAL SAFETY DATA SHEETS (MSDS) SHOULD BE AVAILABLE ON SITE. WHERE POSSIBLE AND AVAILABLE, MSDS SHOULD INCLUDE INFORMATION ON ECOLOGICAL IMPACTS AND MEASURES TO MINIMIZE NEGATIVE ENVIRONMENTAL IMPACTS DURING ACCIDENTAL RELEASES OR ESCAPES. 9. PROCEDURES IN THE MSDS SHOULD BE IMPLEMENTED IN CASE OF AN EMERGENCY 10. THE FOLLOWING DOCUMENTS SHOULD BE AVAILABLE ON SITE, AND MADE AVAILABLE TO THE COMPETENT AUTHORITY ON REQUEST (IF APPLICABLE): - COMPLAINTS REGISTER - ENVIRONMENTAL INCIDENT REGISTER	

PRELIMINARY IMPACT ASSESSMENT PHASE: COMPLIANCE AND MONITORING				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
			- DISPOSAL CERTIFICATES OF WASTE GENERATED DURING THE CONSTRUCTION / OPERATIONAL PHASE - DISPOSAL CERTIFICATES OF WASTE GENERATED AS A RESULT OF THE CONSTRUCTION ACTIVITIES - ENVIRONMENTAL MONITORING (AUDIT) REPORTS - WRITTEN CORRECTIVE ACTION INSTRUCTIONS - ENVIRONMENTAL AUTHORISATION - DWS PERMIT / LICENSE (IF REQUIRED) - BLASTING PERMIT (IF REQUIRED) - EMPR	

PRELIMINARY IMPACT ASSESSMENT PLANNING AND DESIGN PHASE				
ACTIVITY	**IMPACT SUMMARY**	**SIGNIFICANCE WITHOUT MITIGATION**	**MITIGATION MEASURE**	**SIGNIFICANCE WITH MITIGATION**
PLANNING AND DESIGN NOTE: SHOULD THE FOLLOWING ASPECTS NOT BE TAKEN INTO CONSIDERATION DURING THE PLANNING AND DESIGN PHASE, THE ENVIRONMENTAL IMPACTS ASSOCIATED WITH THE CONSTRUCTION AND OPERATION PHASE WILL BE OF HIGH SIGNIFICANCE AS THE ENVIRONMENT WILL BE NEGATIVELY AFFECTED.	**DIRECT IMPACTS:** • POTENTIAL LOSS OF TOPSOIL **INDIRECT IMPACTS:** • ALTERATION OF SOIL CHARACTERISTICS DUE TO POSSIBLE SPILLAGES / DISTURBANCES. **CUMULATIVE IMPACTS:** • CONTAMINATION OF SOIL AS A RESULT OF CHEMICAL / HAZARDOUS SUBSTANCES / POLLUTION / SEWAGE LEAKS.	MEDIUM - HIGH NEGATIVE	1. NO ENVIRONMENTAL MITIGATION MEASURES ARE REQUIRED DURING THE PLANNING PHASE ON THE PROPOSED SITE, AS NO MITIGATION MEASURES ARE TO BE IMPLEMENTED ON SITE DURING THE PLANNING PHASE. 2. THE DESIGN AND LAYOUT OF THE PROPOSED PROJECT WILL TAKE THE POSSIBILITY OF FLOODING, EROSION AND POLLUTION INTO CONSIDERATION 3. THE APPLICANT, ENGINEERS, ENVIRONMENTAL CONSULTANTS AND SPECIALISTS SHOULD TAKE THE FOLLOWING STEPS DURING THE PLANNING PHASE: - PERMITS WILL BE OBTAINED FOR THE REMOVAL / TRANSPLANTATION OF PROTECTED SPECIES (IF ANY) THAT ARE LOCATED WITHIN THE CONSTRUCTION AREA WHERE NO ALTERNATIVES ARE POSSIBLE. - A MONITORING SYSTEM SHOULD BE IMPLEMENTED TO DETERMINE THE OCCURRENCE (IF ANY) OF ANY FUEL / OIL SPILLAGES DURING THE CONSTRUCTION PHASE. - THE NECESSARY ENVIRONMENTAL AUTHORISATION WILL BE OBTAINED BEFORE ANY ACTIVITIES LISTED IN THE REGULATIONS ARE UNDERTAKEN.	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT PLANNING AND DESIGN PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
			- IN ADDITION, THE NECESSARY DWS REGISTRATIONS WILL BE OBTAINED, BEFORE ANY CONSTRUCTION ACTIVITIES NEAR WATERCOURSES ARE UNDERTAKEN. - THE NECESSARY PRECAUTIONS WITH REGARD TO ROAD SAFETY WILL BE IMPLEMENTED FOR CONSTRUCTION WORK TO BE UNDERTAKEN WITHIN ROAD CROSSINGS (IF ANY). - PROPER SANITATION, POTABLE WATER AND WASTE FACILITIES WILL BE IN PLACE BEFORE CONSTRUCTION ACTIVITIES ARE UNDERTAKEN. - A BLASTING PERMIT WILL BE OBTAINED BEFORE BLASTING ACTIVITIES IS UNDERTAKEN (IF ANY).	

PRELIMINARY IMPACT ASSESSMENT				
CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
GENERAL MEASURES TO CONSIDER	**DIRECT IMPACTS:** • POLLUTION OF SOIL • LOSS OF VEGETATION • LOSS OF SOIL • GENERATION OF WASTE **INDIRECT IMPACTS:** • EROSION • GROUNDWATER POLLUTION • ALTERATION OF SOIL CHARACTERISTICS DUE TO POSSIBLE SPILLAGES / DISTURBANCES • ESTABLISHMENT OF ALIEN VEGETATION **CUMULATIVE IMPACTS:** • CONTAMINATION OF SOIL AND GROUNDWATER AS A RESULT OF CHEMICAL / HAZARDOUS SUBSTANCES / POLLUTION / SEWAGE LEAKS.	MEDIUM – HIGH NEGATIVE	1. ANY CONSTRUCTION IS DISRUPTIVE AND THE ENVIRONMENT MUST BE GIVEN CONSIDERATION WITH EVERY ACTIVITY UNDERTAKEN 2. ALL RELEVANT STANDARDS RELATING TO LEGISLATION SHOULD BE ADHERED TO (INCLUDING WASTE EMISSIONS, WASTE DISPOSAL, NOISE REGULATIONS, ETC.) 3. ACCORDING TO SECTION 28 OF THE NEMA ACT 107, EVERY PERSON WHO CAUSE, HAS CAUSED OR MAY CAUSE SIGNIFICANT POLLUTION OR DEGRADATION OF THE ENVIRONMENT MUST TAKE REASONABLE MEASURES TO PREVENT SUCH POLLUTION OR DEGRADATION FROM OCCURRING, CONTINUING OR RECURRING AND IF IT CAN'T BE AVOIDED OR STOPPED, TO MINIMIZE AND RECTIFY SUCH POLLUTION OR DEGRADATION OF THE ENVIRONMENT. 4. THE POLLUTION CONTROL PROVISION IN SECTION 19(1) OF THE NATIONAL WATER ACT (ACT 36 OF 1998) SHOULD BE ADHERED TO AT ALL TIMES. 5. ECO SHOULD BE PROVIDED WITH A LAYOUT OF THE SITE, INDICATING THE POSITION OF THE FOLLOWING PRIOR	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT				
CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
			TO THE SITE ESTABLISHMENT, FOR ACCEPTANCE: - ABLUTION FACILITIES - STORAGE AREAS - READY-MIX AREAS - STOCKPILE AREAS - WASTE DISPOSAL FACILITIES - HAZARDOUS SUBSTANCES STORAGE AREA - ETC. 6. DESIGNATE THE BOUNDARIES OF THE ACTIVE CONSTRUCTION START-UP SITE, BY ERECTING FENCING / DANGER TAPE (WHERE APPLICABLE) 7. FENCE OFF OPERATIONAL FOOTPRINT AREA (IF POSSIBLE) TO ENSURE ALL OPERATIONAL ACTIVITIES ARE CONTAINED WITHIN THE DESIGNATED AREA. 8. ALL CONSTRUCTION AND OPERATIONAL ACTIVITIES MUST BE CONTAINED WITHIN THE DEMARCATED SERVITUDE DETERMINED IN CONSULTATION WITH THE ECO. 9. CARE WILL BE TAKEN TO PREVENT UNNECESSARY DAMAGE TO VEGETATION NEAR TO CONSTRUCTION ACTIVITIES. 10. THE NECESSARY PRECAUTIONS WITH REGARD TO ROAD SAFETY WILL BE	

PRELIMINARY IMPACT ASSESSMENT				
CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
			IMPLEMENTED FOR CONSTRUCTION WORK WITHIN ROAD CROSSINGS (IF ANY). 11. PROPER SANITATION, WATER AND WASTE FACILITIES WILL BE IN PLACE FOR CONSTRUCTION WORKERS THROUGHOUT THE CONSTRUCTION PHASE. 12. CHEMICAL TOILETS (IF ANY) WILL BE CLEANED AND SERVICED REGULARLY AND PROOF THEREOF WILL BE AVAILABLE ON SITE. 13. POTABLE WATER WILL BE MADE AVAILABLE DAILY TO WORKERS ON SITE. 14. FIRE-FIGHTING EQUIPMENT WILL BE AVAILABLE ON SITE, WHERE APPLICABLE. 15. IF ARTEFACTS OR GRAVES ARE UNCOVERED DURING CONSTRUCTION ACTIVITIES, WORK IN THE IMMEDIATE VICINITY WILL BE STOPPED UNTIL THE PROJECT ARCHAEOLOGIST AND SAHRA HAS BEEN CONSULTED. 16. ADJACENT LANDOWNERS WILL BE NOTIFIED OF PROPOSED BLASTING, 24 HOURS PRIOR TO BLASTING ACTIVITIES.	
SITE ACCESS	**DIRECT IMPACTS:** • POLLUTION OF SOIL	MEDIUM-HIGH NEGATIVE	1. NECESSARY DRAWINGS FOR THE UPGRADING OF INTERSECTIONS (IF	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT				
CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
	• LOSS OF VEGETATION • LOSS OF SOIL • GENERATION OF WASTE • LIMITED VIEWING DISTANCE DURING THE CONSTRUCTION PHASE **INDIRECT IMPACTS:** • EROSION • GROUNDWATER POLLUTION • ALTERATION OF SOIL CHARACTERISTICS DUE TO POSSIBLE SPILLAGES / DISTURBANCES • ESTABLISHMENT OF ALIEN VEGETATION • ACCIDENTS **CUMULATIVE IMPACTS:** • CONTAMINATION OF SOIL AND GROUNDWATER AS A RESULT OF CHEMICAL / HAZARDOUS SUBSTANCES /		ANY) ARE TO BE SUBMITTED TO THE RELEVANT AUTHORITY (SANRAL / PROVINCIAL DEPARTMENT OF ROADS / MUNICIPALITY'S DEPARTMENT OF ROADS) FOR APPROVAL, AND THE UPGRADES ARE TO BE IMPLEMENTED 2. THE CURRENT ACCESS ROAD SHOULD BE IMPROVED, WHEN REQUIRED 3. PROPER STORM WATER MEASURES ARE TO BE IMPLEMENTED TO AVOID RUN-OFF OF WATER AND WASHING OF SAND / SOIL ONTO THE ROAD 4. EROSION MEASURES WILL BE IMPLEMENTED 5. REMOVAL OF VEGETATION WILL BE KEPT TO THE REQUIRED AREA 6. NO ANIMALS WILL BE HUNTED / CAPTURED ON SITE (ONLY TO BE UNDERTAKEN BY A RELEVANT SPECIALIST)	

PRELIMINARY IMPACT ASSESSMENT CONSTRUCTION PHASE				
ACTIVITY	**IMPACT SUMMARY**	**SIGNIFICANCE WITHOUT MITIGATION**	**MITIGATION MEASURE**	**SIGNIFICANCE WITH MITIGATION**
	POLLUTION / SEWAGE LEAKS. • LOSS OF HUMAN LIFE			
EMPLOYEE CONDUCT ON SITE	**DIRECT IMPACTS:** • DISPOSAL OF WASTE ON SITE • LOSS OF VEGETATION • LOSS OF ANIMAL LIFE • LOSS OF SOIL • INJURIES ON SITE **INDIRECT IMPACTS:** • SOIL AND GROUNDWATER POLLUTION ON SITE • LOSS OF VEGETATION AND ANIMAL LIFE ON SITE • INJURIES **CUMULATIVE IMPACTS:** • SOIL AND GROUNDWATER POLLUTION ON ADJACENT PROPERTIES • LOSS OF VEGETATION AND ANIMAL LIFE ON ADJACENT	MEDIUM – HIGH NEGATIVE	1. NO ANIMALS MAY BE HARMED / CAPTURED / TRAPPED AND / OR HUNTED. THIS MUST BE STRICTLY ENFORCED. 2. ANIMALS FOUND AT THE CONSTRUCTION SITE WILL BE REMOVED AND RELOCATED TO AN APPROPRIATE AREA, BY A SUITABLE, QUALIFIED PERSON 3. NO OPEN FIRES ALLOWED. PROVISION WILL BE MADE TO LIMIT THE OCCURRENCE OF ACCIDENTAL FIRES. 4. NO FIREWOOD WILL BE COLLECTED ON SITE OR IN SURROUNDING AREAS, WITHOUT WRITTEN APPROVAL FROM THE LANDOWNER. 5. NO SMOKING OR OPEN FIRES WILL BE ALLOWED NEAR STORAGE FACILITIES 6. NO WASTE MAY BE DUMPED ON SITE 7. EMPLOYEES SHOULD MAKE USE OF THE ABLUTION FACILITIES PROVIDED	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT CONSTRUCTION PHASE				
ACTIVITY	**IMPACT SUMMARY**	**SIGNIFICANCE WITHOUT MITIGATION**	**MITIGATION MEASURE**	**SIGNIFICANCE WITH MITIGATION**
	PROPERTIES • LOSS OF HUMAN LIFE			
SOIL, EROSION AND VEGETATION MANAGEMENT	**DIRECT IMPACTS:** • DISPOSAL OF WASTE ON SITE • LOSS OF VEGETATION • LOSS OF ANIMAL LIFE • LOSS OF SOIL **INDIRECT IMPACTS:** • SOIL AND GROUNDWATER POLLUTION ON SITE • LOSS OF VEGETATION AND ANIMAL LIFE ON SITE • EROSION **CUMULATIVE IMPACTS:** • SOIL AND GROUNDWATER POLLUTION ON ADJACENT PROPERTIES • LOSS OF VEGETATION AND ANIMAL LIFE ON ADJACENT PROPERTIES	MEDIUM NEGATIVE	1. CONSTRUCTION ACTIVITIES WILL BE LIMITED TO DESIGNATED CONSTRUCTION AREAS TO PREVENT PERIPHERAL IMPACTS ON SURROUNDING NATURAL HABITATS. CONSTRUCTION VEHICLES WILL ALSO KEEP TO CONSTRUCTED ROADS WHERE POSSIBLE, SO THAT NATURAL VEGETATION IS NOT DESTROYED UNNECESSARILY. 2. ACCESS ROADS OR TEMPORARY CROSSINGS MUST BE NON-EROSIVE, STRUCTURALLY STABLE AND NOT INDUCE FLOODING / SAFETY HAZARD. 3. IF ANY ACCESS ROAD OR TEMPORARY CROSSING IS IMPAIRED, IT WILL BE REPAIRED IMMEDIATELY TO PREVENT ANY FUTURE / FURTHER DAMAGE. 4. ALL NO-GO AREAS MUST BE DEMARCATED UNDER GUIDANCE OF THE ENVIRONMENTAL CONTROL OFFICER (ECO). ALL HUMAN MOVEMENT AND ACTIVITIES WILL BE CONTAINED WITHIN DESIGNATED CONSTRUCTION AREAS IN ORDER TO PREVENT PERIPHERAL IMPACTS ON SURROUNDING NATURAL	LOW-MEDIUM NEGATIVE

PRELIMINARY IMPACT ASSESSMENT				
CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
			HABITAT. 5. EROSION MANAGEMENT IS IMPORTANT. REHABILITATION MEASURES MUST BE MONITORED TO ENSURE THAT NO EROSION HAS OCCURRED AND THE DISTURBED AREAS HAVE BEEN ADEQUATELY RE-VEGETATED. 6. CONCURRENT REHABILITATION OF DISTURBED AREAS WILL BE UNDERTAKEN TO HELP THE RECOVERY OF THE VEGETATION. 7. STOCKPILED SOIL WILL BE STOCKPILED IN AN AREA WHERE IT WILL NOT BE DISTURBED BY VEHICLES. 8. STOCKPILED SOIL WILL BE PROTECTED FROM WASHING AWAY DURING RAINSTORMS. FOR EXAMPLE: - ONE LAYER OF BRICKS OR STONES CAN BE PLACED AROUND THE STOCKPILED TOPSOIL. - BRICKS MAY BE PLACED AROUND THE STOCKPILES, TO LIMIT THE LOSS THEREOF DUE TO RAINY EVENTS. - STOCKPILES SHOULD NOT BE HIGHER THAN 1.5 M. - THE GRADIENT OF STOCKPILES SHOULD NOT BE GREATER THAN 1:1.5.	

PRELIMINARY IMPACT ASSESSMENT				
CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
			9. STOCKPILES SHOULD BE LOCATED AWAY FROM DRAINAGE LINES, WATERCOURSES AND AREAS OF TEMPORARY FLOOD 10. ALL SOIL EXCAVATED IS TO BE SEPARATED INTO TOP- AND SUBSOIL. SUBSOIL MUST BE USED FOR BACKFILLING AND TOPSOIL FOR LANDSCAPING AND REHABILITATION OF DISTURBED AREAS 11. STOCKPILED MATERIAL WILL BE PLACED ON THE CLEARED AREAS ONCE CONSTRUCTION IS COMPLETED. RE-SPREADING OF TOPSOIL IS TO BE DONE TO ITS ORIGINAL DEPTH. 12. FERTILISERS SHOULD BE USED WHERE TOPSOIL AND SUBSOIL WAS MIXED OR WHERE THE TOPSOIL IS NOT UP TO ORIGINAL STANDARD 13. INDIGENOUS TREE SPECIES IN THE VICINITY OF THE OPERATIONAL SITE (IF ANY) SHOULD BE MARKED WITH DANGER TAPE. DISTURBANCE TO SUCH SPECIES SHOULD BE AVOIDED, WHERE POSSIBLE. 14. A PERMIT FOR THE REMOVAL OF PROTECTED PLANT SPECIES WILL BE OBTAINED BEFORE THE REMOVAL OF THESE SPECIES (IF ANY). 15. AN ALIEN CONTROL AND	

PRELIMINARY IMPACT ASSESSMENT CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
			MONITORING PROGRAMME WILL BE DEVELOPED STARTING DURING THE CONSTRUCTION PHASE AND WILL BE CARRIED OVER INTO THE OPERATIONAL PHASE. 16. ANY PROCLAIMED WEED OR ALIEN SPECIES THAT GERMINATES ON SITE WILL BE CLEARED BY HAND / APPROVED CHEMICALS BEFORE FLOWERING THEREOF. 17. IMPORTED FILL MATERIAL WILL BE MONITORED DURING AND AFTER CONSTRUCTION FOR THE PRESENCE OF ANY ALIEN SPECIES. ANY SUCH SPECIES WILL BE REMOVED IMMEDIATELY. 18. FIRE FIGHTING EQUIPMENT WILL BE AVAILABLE ON SITE. 19. SPECIES, ESPECIALLY GRASSES, TREES AND SHRUBS OCCURRING IN THE REGION WILL BE USED TO REHABILITATE DISTURBED AREAS. 20. COMPACTED SOILS (SUCH AS DIRT TRACKS NOT TO BE UTILISED DURING THE OPERATIONAL PHASE) MUST BE RIPPED TO ENSURE THE ESTABLISHMENT OF NATURAL OCCURRING VEGETATION. 21. SHOULD NATURAL RE-GROWTH NOT BE SUFFICIENT, THE AREA SHOULD BE HYDRO-SEEDED.	

PRELIMINARY IMPACT ASSESSMENT				
CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
			22. CONCURRENT REHABILITATION SHOULD BE UNDERTAKEN, WHERE POSSIBLE. 23. VEGETATION CLEARANCE WILL BE LIMITED TO THE REQUIRED AREA. 24. SPEED LIMIT WILL BE ENFORCED ON THE CONSTRUCTION VEHICLES AND THESE VEHICLES WILL ONLY MAKE USE OF DESIGNATED ROADS / PATHWAYS. 25. DUST CONTROL MEASURES WILL BE IMPLEMENTED IF NUISANCE DUST GENERATION OCCURS DURING THE CONSTRUCTION PERIOD. 26. ALL ARCHAEOLOGICAL FINDINGS (IF ANY) SHOULD BE RECORDED AND REPORTED TO SAHRA. NO CONSTRUCTION ACTIVITIES IN THE AREA MAY PROCEED WITHOUT THE AUTHORISATION FROM SAHRA. 27. STORM WATER MEASURES WILL BE IMPLEMENTED IN ORDER TO MANAGE STORM WATER AND THIS WILL ALSO PREVENT EROSION. 28. THE SITE WILL HAVE TO BE PROPERLY SLOPED IN ORDER TO ALLOW THE STORM WATER TO DRAIN SUFFICIENTLY. 29. VISUAL INSPECTIONS FOR THE OCCURRENCE OF EROSION SHOULD BE UNDERTAKEN ON A WEEKLY	

PRELIMINARY IMPACT ASSESSMENT CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
			BASIS. 30. NO ANIMALS MAY BE CAPTURED / HARMED / KILLED ON SITE. THE REMOVAL OF ANIMALS MAY ONLY BE UNDERTAKEN BY A SUITABLE PERSON. 31. ANY OCCURRENCES OF HARMED ANIMALS SHOULD BE REPORTED TO THE ECO AND RECORDED AS SUCH.	
MINIMISE CONTAMINATION AND STERILISATION OF SOIL	**DIRECT IMPACTS:** • DISPOSAL OF WASTE ON SITE • LOSS OF VEGETATION • LOSS OF ANIMAL LIFE • LOSS OF SOIL **INDIRECT IMPACTS:** • SOIL AND GROUNDWATER POLLUTION ON SITE • LOSS OF VEGETATION AND ANIMAL LIFE ON SITE • EROSION **CUMULATIVE IMPACTS:** • SOIL AND GROUNDWATER POLLUTION ON	MEDIUM NEGATIVE	1. USE OF POTENTIALLY POLLUTING AND HAZARDOUS SUBSTANCES SHOULD BE STRICTLY CONTROLLED 2. IF SOIL IS SIGNIFICANTLY CONTAMINATED BY HAZARDOUS SUBSTANCES, THEN THIS SOIL IS CONSIDERED AS HAZARDOUS AND SHOULD BE DISPOSED OF ACCORDING TO BEST PRACTICES 3. REPAIR / MAINTENANCE WILL BE CONDUCTED ON SITE, AND IMPACTS LIKE OIL SPILLS SHOULD BE APPROPRIATELY MITIGATED. SPILL RESPONSE PROCEDURES MUST BE CLEARLY DEFINED AND WELL KNOWN BY ALL STAFF. 4. ALL THREATENED OR PROTECTED PLANT SPECIES AS SPECIFIED BY THE NEM: BIODIVERSITY ACT (2004) WILL BE IDENTIFIED ON SITE. PERMITS ARE REQUIRED FOR THE REMOVAL / TRANSPLANTATION OF THESE	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT CONSTRUCTION PHASE				
ACTIVITY	**IMPACT SUMMARY**	**SIGNIFICANCE WITHOUT MITIGATION**	**MITIGATION MEASURE**	**SIGNIFICANCE WITH MITIGATION**
	ADJACENT PROPERTIES • LOSS OF VEGETATION AND ANIMAL LIFE ON ADJACENT PROPERTIES • ESTABLISHMENT OF ALIEN VEGETATION		PLANTS.	
TRENCHING, PLACING OF PIPELINE AND COVERING OF PIPELINE	**DIRECT IMPACTS:** • GENERATION OF WASTE • EROSION • LOSS OF VEGETATION AND SOIL **INDIRECT IMPACTS:** • DISPOSAL OF WASTE ON SITE. • EROSION • LOSS OF VEGETATION AND SOIL ON SITE. **CUMULATIVE IMPACTS:** • ESTABLISHMENT OF ALIEN VEGETATION • POLLUTION ON ADJACENT PROPERTIES • LOSS OF VEGETATION	MEDIUM NEGATIVE	1. SITE WILL BE KEPT NEAT AND TIDY. 2. APPROPRIATE AREA WILL BE IDENTIFIED AS A STOCKPILING AREA. 3. SPEED LIMIT WILL BE ENFORCED ON THE CONSTRUCTION VEHICLES AND THESE VEHICLES WILL ONLY MAKE USE OF DESIGNATED ROADS / PATHWAYS. 4. DUST CONTROL MEASURES WILL BE IMPLEMENTED IF NUISANCE DUST GENERATION OCCURS DURING THE CONSTRUCTION PERIOD. 5. STOCKPILED MATERIAL WILL BE STORED IN SUCH A WAY TO LIMIT THE LOSS THEREOF. FOR EXAMPLE: - BRICKS MAY BE PLACED AROUND THE STOCKPILES, TO LIMIT THE LOSS THEREOF DUE TO RAINY EVENTS. - STOCKPILES SHOULD NOT BE HIGHER THAN 1.5 M. - THE GRADIENT OF STOCKPILES SHOULD NOT BE GREATER THAN 1:1.5.	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT				
CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
	AND SOIL ON ADJACENT PROPERTIES.		6. NOISE CONTROL MEASURES WILL BE IMPLEMENTED. 7. ALL EMPLOYEES WILL BE PROVIDED WITH THE CORRECT PPE. 8. ESTABLISHMENT OF ALIEN / INVADER VEGETATION WILL BE MONITORED AND THESE SPECIES WILL BE REMOVED BY HAND OR BY AN APPROVED CHEMICAL BEFORE GESTATION THEREOF. 9. ALL ARCHAEOLOGICAL FINDINGS (IF ANY) SHOULD BE RECORDED AND REPORTED TO SAHRA. NO CONSTRUCTION ACTIVITIES IN THE AREA MAY PROCEED WITHOUT AUTHORISATION FROM SAHRA. 10. STORM WATER MEASURES WILL BE IMPLEMENTED IN ORDER TO MANAGE STORM WATER AND THIS WILL ALSO PREVENT EROSION. 11. VISUAL INSPECTIONS FOR THE OCCURRENCE OF EROSION SHOULD BE UNDERTAKEN ON A WEEKLY BASIS. 12. NO ANIMALS MAY BE CAPTURED / HARMED / KILLED ON SITE. THE REMOVAL OF ANIMALS MAY ONLY BE UNDERTAKEN BY A SUITABLE PERSON. 13. ANY OCCURRENCES OF HARMED ANIMALS SHOULD BE REPORTED TO	

PRELIMINARY IMPACT ASSESSMENT CONSTRUCTION PHASE				
ACTIVITY	**IMPACT SUMMARY**	**SIGNIFICANCE WITHOUT MITIGATION**	**MITIGATION MEASURE**	**SIGNIFICANCE WITH MITIGATION**
			THE ECO AND RECORDED AS SUCH.	
ABLUTION FACILITIES	**DIRECT IMPACTS:** • SEWER ON SITE **INDIRECT IMPACTS:** • POLLUTION OF SOIL AND GROUNDWATER RESOURCES ON SITE **CUMULATIVE IMPACTS:** • ILLNESSES OF EMPLOYEES • POLLUTION OF SOIL AND GROUNDWATER RESOURCES ON ADJACENT PROPERTIES	MEDIUM – HIGH NEGATIVE	1. NO OPEN AREAS OR THE SURROUNDING VEGETATION MAY BE USED AS 'TOILET FACILITIES'. 2. TOILETS SHOULD BE AVAILABLE FOR ALL EMPLOYEES. WHERE WATERBORNE SEWERAGE IS NOT AVAILABLE, THE ECO MUST DESIGNATE AN AREA WITHIN THE BOUNDARIES OF THE SITE FOR THE ERECTION OF PORTABLE CHEMICAL TOILETS. 3. TOILET FACILITIES SHALL OCCUR AT A MINIMUM RATION OF 1 TOILET PER 15 EMPLOYEES. 4. TOILETS SHALL BE MAINTAINED IN A HYGIENIC STATE AND SERVICED WHEN REQUIRED. 5. TEMPORARY TOILETS (IF ANY) SHOULD BE SERVICED REGULARLY AND THE CONTENTS BE REMOVED TO A LICENSED DISPOSAL FACILITY.	LOW NEGATIVE
SAFEGUARD WATER RESOURCES (NOTE: NO SURFACE WATER RESOURCES ARE AVAILABLE ON SITE. WATER RESOURCES	**DIRECT IMPACTS:** • GENERATION OF WASTE ON SITE • LOSS OF SOIL AND VEGETATION ON SITE **INDIRECT IMPACTS:** • POLLUTION OF SOIL AND GROUNDWATER	MEDIUM – HIGH NEGATIVE	1. NO ACTIVITIES WILL BE UNDERTAKEN WITHIN 32 M OF A WATERCOURSE / WITHIN THE 1:100 YEAR FLOODLINE / 500M OF A WETLAND, WITHOUT THE NECESSARY AUTHORISATIONS (FOR EXAMPLE FROM DESTEA AND DWS). 2. CAUTION WILL BE TAKEN TO ENSURE THAT CONSTRUCTION MATERIALS ARE NOT DUMPED OR STORED WITHIN	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
REFERRED TO IN THIS SECTION REFERS TO GROUNDWTAER RESOURCES)	RESOURCES ON SITE • EROSION ON SITE **CUMULATIVE IMPACTS:** • POLLUTION OF SOIL AND GROUNDWATER RESOURCES ON ADJACENT PROPERTIES • EROSION ON ADJACENT PROPERTIES.		STORM WATER MANAGEMENT SYSTEMS. 3. CONSTRUCTION ACTIVITIES IN THE STORM WATER INFRASTRUCTURE WILL BE LIMITED THROUGH PROPER DEMARCATION AND APPROPRIATE ENVIRONMENTAL AWARENESS TRAINING. 4. THE CONTRACTOR IS RESPONSIBLE TO INFORM ALL STAFF OF THE NEED TO BE VIGILANT AGAINST ANY PRACTICE THAT WILL HAVE A HARMFUL EFFECT ON WATERWAYS. 5. INFILLING, EXCAVATION, DRAINAGE AND HARDENING OF SURFACES WILL NOT OCCUR UNNECESSARILY IN STORM WATER INFRASTRUCTURE. 6. EMERGENCY PLANS WILL BE IN PLACE IN CASE OF FUEL SPILLAGES (TO LIMIT THE OCCURRENCE OF SOIL AS WELL AS GROUNDWATER POLLUTION). 7. A MONITORING SYSTEM SHOULD BE IMPLEMENTED TO DETERMINE THE OCCURRENCE (IF ANY) OF ANY FUEL / OIL SPILLAGES DURING THE CONSTRUCTION OR OPERATIONAL PHASE. 8. OCCURRENCE OF EROSION WILL BE MONITORED. REPARATIONS WILL BE UNDERTAKEN AS SOON AS POSSIBLE. 9. THE NECESSARY MITIGATION	

PRELIMINARY IMPACT ASSESSMENT				
CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
			MEASURES SHOULD BE IMPLEMENTED IMMEDIATELY, SHOULD ANY LEAKAGES / SPILLS BE DETECTED. 10. WEATHER FORECASTS FROM THE SOUTH AFRICAN WEATHER BUREAU OF UP TO THREE DAYS IN ADVANCE WILL BE MONITORED ON A DAILY BASIS TO AVOID EXPOSING SOIL OR CONSTRUCTION WORKS OR MATERIALS DURING A STORM EVENT AND APPROPRIATE ACTION WILL BE TAKEN IN ADVANCE TO PROTECT CONSTRUCTION WORKS SHOULD A STORM EVENT BE FORECASTED. 11. ALL NO-GO AREAS WILL BE DEMARCATED UNDER GUIDANCE OF THE ENVIRONMENTAL CONTROL OFFICER (ECO). 12. THE DESIGN OF DRAINAGE SYSTEMS WILL ENSURE THAT THERE IS NO CONTAMINATION OR EUTROPHICATION. DRAINAGE SYSTEMS WILL BE MAINTAINED REGULARLY IN ORDER TO MINIMIZE THE RUNOFF OF HARMFUL CHEMICAL SUBSTANCES INTO THE WATERWAY(S). 13. IT WILL BE ENSURED THAT THE CONSTRUCTION ACTIVITIES HAVE MINIMAL EFFECTS ON THE FLOW OF WATER THROUGH THE STORM WATER INFRASTRUCTURE.	

PRELIMINARY IMPACT ASSESSMENT CONSTRUCTION PHASE				
ACTIVITY	**IMPACT SUMMARY**	**SIGNIFICANCE WITHOUT MITIGATION**	**MITIGATION MEASURE**	**SIGNIFICANCE WITH MITIGATION**
			14. NO EROSION OR SILTATION MAY OCCUR DUE TO ANY CONSTRUCTION OR OPERATIONAL ACTIVITIES. 15. CONSTRUCTION AND OPERATIONAL ACTIVITIES SHOULD TAKE THE WETLAND BOUNDARIES AND ASSOCIATED BUFFER ZONES INTO CONSIDERATION (IF ANY).	
WORKINGS WITHIN / NEAR TO WATERCOURSES (NOTE: NO SURFACE WATER RESOURCES ARE AVAILABLE ON SITE. WATER RESOURCES REFERRED TO IN THIS SECTION REFERS TO GROUNDWTAER RESOURCES)	**DIRECT IMPACTS:** • GENERATION OF WASTE ON SITE • LOSS OF SOIL AND VEGETATION ON SITE **INDIRECT IMPACTS:** • POLLUTION OF SOIL AND GROUNDWATER RESOURCES ON SITE • EROSION ON SITE **CUMULATIVE IMPACTS:** • POLLUTION OF SOIL AND GROUNDWATER RESOURCES ON ADJACENT PROPERTIES • EROSION ON ADJACENT PROPERTIES.	MEDIUM – HIGH NEGATIVE	1. STORM WATER MEASURES WILL BE IMPLEMENTED IN ORDER TO MANAGE STORM WATER AND THIS WILL ALSO PREVENT EROSION. 2. CONSTRUCTION ACTIVITIES IN WATERWAYS SHOULD BE UNDERTAKEN IN SUCH A MANNER THAT NO CONTAINMENT OF WATER IS REQUIRED, WHERE POSSIBLE. 2/3 OF THE WATERWAYS MAY BE DIVERTED AT A TIME, WHERE REQUIRED. 3. THE NECESSARY AUTHORISATIONS SHOULD BE OBTAINED FROM DWS, SHOULD THE CONTAINMENT OF WATER BE REQUIRED. 4. VISUAL INSPECTIONS FOR THE OCCURRENCE OF EROSION SHOULD BE UNDERTAKEN ON A WEEKLY BASIS.	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT				
CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
HANDLING OF WASTE / WASTE MANAGEMENT (NOTE THAT WASTE REFERS TO ALL CONSTRUCTION DEBRIS AND DOMESTIC WASTE GENERATED DUE TO CONSTRUCTION ACTIVITIES.)	**DIRECT IMPACTS:** • GENERATION OF WASTE ON SITE **INDIRECT IMPACTS:** • POLLUTION OF SOIL AND GROUNDWATER RESOURCES ON SITE • AIR POLLUTION • ATTRACT MICE AND OTHER RODENTS TO THE SITE **CUMULATIVE IMPACTS:** • POLLUTION OF SOIL AND GROUNDWATER RESOURCES ON ADJACENT PROPERTIES • EROSION ON ADJACENT PROPERTIES. • **ATTRACT SNAKES AND OTHER CARNIVORES TO THE SITE**	MEDIUM – HIGH NEGATIVE	1. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF CONSTRUCTION WASTE. 2. SUITABLE CONTAINERS (WEATHER AND VERMIN PROOF) WILL BE PLACED ON SITE TO COLLECT ALL SOLID WASTE. THESE WILL BE EMPTIED REGULARLY. 3. NO LITTERING IS PERMITTED. DURING THE CONSTRUCTION AND OPERATIONAL PHASE THE SITE WILL BE MAINTAINED IN A NEAT AND TIDY CONDITION. 4. ALL SOLID WASTE PRODUCED WILL BE DISPOSED OF AT AN AUTHORIZED LANDFILL SITE. RECYCLABLE WASTE MAY ALSO BE SOLD TO RECYCLING CONTRACTORS. 5. NO DUMPING, BURNING OR BURYING OF WASTE WILL BE UNDERTAKEN ON SITE. 6. ALL HAZARDOUS WASTE WILL BE DISPOSED OF AT AN AUTHORIZED HAZARDOUS LANDFILL SITE. 7. RECYCLABLE HAZARDOUS WASTE WILL BE RE-USED OR SOLD TO RECYCLING CONTRACTORS, WHERE POSSIBLE 8. A WASTE MANAGEMENT PLAN WILL BE COMPILED AND DESIGNED TO ENSURE THAT ADEQUATE WASTE MANAGEMENT ACTIVITIES ARE	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT CONSTRUCTION PHASE				
ACTIVITY	**IMPACT SUMMARY**	**SIGNIFICANCE WITHOUT MITIGATION**	**MITIGATION MEASURE**	**SIGNIFICANCE WITH MITIGATION**
			UNDERTAKEN. 9. AREAS USED FOR WASTE STORAGE AND LOADING OF MATERIALS SHOULD BE LINED AND BUND WALLS HAVE TO BE ERECTED TO CONTAIN ANY SPILLS THAT MIGHT OCCUR. 10. WAYBILLS PROVIDING EVIDENCE OF CORRECT DISPOSAL PROCEDURE MUST BE PROVIDED FOR THE ECO'S INSPECTION. 11. WASTE CLASSIFICATION SHOULD BE UNDERTAKEN. 12. VISUAL INSPECTIONS FOR THE OCCURRENCE OF POLLUTION SHOULD BE UNDERTAKEN DAILY. 13. SPILLS SHOULD BE CLEANED UP IMMEDIATELY ACCORDING TO BEST PRACTICES 14. DWS SHOULD BE NOTIFIED OF ANY SPILLAGE / POLLUTION OF WATER SOURCES (GROUNDWATER AND / OR SURFACE WATER) WITHIN 24 HOURS OF OCCURRENCE 15. RECORD SHOULD BE KEPT ON SITE TO INDICATE DATE OF VISUAL INSPECTION, ANY SPILLAGES OBSERVED, AND MANNER IN WHICH SPILL WAS TREATED.	
HEALTH, SAFETY AND SECURITY	**DIRECT IMPACTS:** • GENERATION OF WASTE ON SITE	MEDIUM – HIGH NEGATIVE	1. SITE SHOULD BE FENCED / MARKED WITH DANGER TAPE, WHERE POSSIBLE. 2. THE CONTRACTORS WILL COMPLY	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT				
CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
	• INJURIES OF EMPLOYEES ON SITE • THEFT ON SITE • LIMITED VIEWING DISTANCE DURING THE CONSTRUCTION PHASE **INDIRECT IMPACTS:** • POLLUTION OF SOIL AND GROUNDWATER RESOURCES ON SITE • AIR POLLUTION • ATTRACT MICE AND OTHER RODENTS TO THE SITE **CUMULATIVE IMPACTS:** • POLLUTION OF SOIL AND GROUNDWATER RESOURCES ON ADJACENT PROPERTIES • EROSION ON ADJACENT PROPERTIES.		WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT, NATIONAL BUILDING REGULATIONS AND ANY OTHER NATIONAL, REGIONAL OR LOCAL REGULATIONS WITH REGARD TO SAFETY ON SITE. 3. CONSTRUCTION CONTRACTS WILL INCLUDE SAFETY AND SECURITY MEASURES FOR STAFF. 4. PRECAUTIONS TO ENSURE THAT CONSTRUCTION STAFF AND SITES ARE VISIBLE AND PROPER PPE WILL BE PROVIDED TO ALL EMPLOYEES. 5. SUITABLE WARNING AND INFORMATION SIGNAGE SHOULD BE AVAILABLE AT THE STORAGE FACILITIES. IN ADDITION, TELEPHONE NUMBERS OF EMERGENCY SERVICES (INCLUDING LOCAL FIREFIGHTING SERVICES) MUST BE POSTED CONSPICUOUSLY ON SITE. 6. EMPLOYEES SHOULD BE MADE AWARE OF THE HEALTH RISKS ASSOCIATED WITH ANY HAZARDOUS SUBSTANCES / DANGEROUS GOODS USED OR STORED ON SITE. THIS INCLUDES SOIL THAT WAS CONTAMINATED WITH OIL OR DIESEL, ETC. 7. EMPLOYEES SHOULD RECEIVE RELEVANT SAFETY TRAINING IN HANDLING OF HAZARDOUS	

PRELIMINARY IMPACT ASSESSMENT				
CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
			SUBSTANCES / DANGEROUS GOODS ASSOCIATED WITH THE PROPOSED PROJECT. 8. PROPER PPE SHOULD BE PROVIDED TO THE EMPLOYEES AND USED CORRECTLY BY EMPLOYEES. 9. CONSTRUCTION WORK WITHIN ROAD RESERVES WILL ACCOMMODATE ROAD USERS AS FAR AS POSSIBLE. THIS INCLUDES THE FOLLOWING: - ROADS WILL BE CROSSED IN HALF WIDTHS AT A TIME TO MINIMISE THE IMPACT ON VEHICULAR TRAFFIC, WHERE POSSIBLE. - CONSTRUCTION ALONG AND ACROSS EXISTING ROADS WILL BE EXECUTED IN SUCH A MANNER THAT BOTH PEDESTRIAN AND VEHICULAR TRAFFIC IS ACCOMMODATED AT ALL TIMES. - THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN ADEQUATE ACCESS TO ALL PUBLIC AND PRIVATE PROPERTY AT ALL TIMES. - CONTRACTOR WILL SUPPLY, ERECT AND MAINTAIN ROAD SIGNS FOR ALL WORK AREAS CONFORMING TO THE PRESCRIBED LAYOUT AND REQUIREMENT OF THE SOUTH AFRICAN ROAD TRAFFIC SIGNS MANUAL AND OTHER RELEVANT	

PRELIMINARY IMPACT ASSESSMENT CONSTRUCTION PHASE				
ACTIVITY	**IMPACT SUMMARY**	**SIGNIFICANCE WITHOUT MITIGATION**	**MITIGATION MEASURE**	**SIGNIFICANCE WITH MITIGATION**
			NOTICES. 10. FIRE EXTINGUISHERS WILL BE AVAILABLE ON SITE AND IN THE CONSTRUCTION CAMP (IF ANY). 11. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN ADEQUATE ACCESS TO ALL PUBLIC AND PRIVATE PROPERTY AT ALL TIMES. 12. SPEED LIMITS OF 20KM/H WILL BE ENFORCED. 13. ALL RELEVANT IAPS WILL BE NOTIFIED 24 HOURS PRIOR TO ANY KNOWN POTENTIAL RISKS ASSOCIATED WITH THE SITE AND THE ACTIVITIES TO BE UNDERTAKEN ON SITE. (FOR EXAMPLE, PRIOR TO ANY BLASTING TO BE UNDERTAKEN.) 14. THE NECESSARY PRECAUTIONS WITH REGARD TO ROAD SAFETY WILL BE IMPLEMENTED FOR CONSTRUCTION WORK WITHIN ROAD CROSSINGS. 15. ALL INJURIES SHOULD BE RECORDED. 16. SECURITY MEASURES SHOULD BE IMPLEMENTED TO LIMIT THE OCCURRENCE OF THEFT ON SITE.	
HERITAGE	**DIRECT IMPACTS:** • DAMAGE / LOSS OF ARTEFACTS • DISCOVERY OF ARTEFACTS (POSITIVE IMPACT)	MEDIUM NEGATIVE	1. IN THE CASE OF THE DISCOVERY OF ANY HERITAGE, ARCHAEOLOGICAL OR PALAEONTOLOGICAL SIGNIFICANCE, THE WORK IN THE AREA WILL BE STOPPED AND REPORTED TO THE ECO,	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT				
CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
	INDIRECT IMPACTS: • DAMAGE / LOSS OF ARTEFACTS • GAIN KNOWLEDGE ON ARTEFACTS DISCOVERED (POSITIVE IMPACT) **CUMULATIVE IMPACTS:** • NO INFORMATION IS OBTAINED FROM THE ARTEFACTS • ADDITIONAL KNOWLEDGE IS GAINED ON THE DISCOVERED ARTEFACTS (POSITIVE IMPACT)		ARCHAEOLOGIST AND SAHRA. ANY CONSTRUCTION ACTIVITIES IN THE NEARBY VICINITY MAY ONLY COMMENCE AFTER APPROVAL IS OBTAINED FROM SAHRA AS WELL AS THE ECO. 2. SHOULD ANY FOSSILS BE UNCOVERED WITHIN INTACT SEDIMENTARY ROCKS DURING THE DEVELOPMENT OR IF EXCAVATIONS EXCEED MORE THAN 1 M INTO SEDIMENTARY ROCK, A SUITABLY QUALIFIED PALAEONTOLOGIST MUST EVALUATE THE FINDS OR MONITOR THE EXPOSED AREAS AS SOON AS POSSIBLE. 3. KNOWN HERITAGE RESOURCES (IF ANY) MUST BE AVOIDED AS FAR AS POSSIBLE. 4. EMPLOYEES SHOULD BE ENCOURAGED AND INFORMED OF THE NEED TO BE ON THE LOOK-OUT FOR POTENTIAL FOSSILS / BURIED ARCHAEOLOGICAL MATERIAL. 5. IN THE CASE OF THE DISCOVERY OF ANY STONE TOOLS OR OTHER ARCHAEOLOGICAL OR PALAENTOLOGICAL MATERIAL, THE WORK IN THE IMMEDIATE VICINITY SHOULD TEMPORARILY CEASE AND REPORTED TO THE ARCHAEOLOGIST AND SAHRA. SHOULD ANY HUMAN	

PRELIMINARY IMPACT ASSESSMENT				
CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
			REMAINS BE EXPOSED, THE ARCHAEOLOGIST AS WELL AS THE LOCAL SAPS SHOULD ALSO BE NOTIFIED. 6. IF ANY EVIDENCE OF ARCHAEOLOGICAL SITES OR REMAINS (E.G. REMNANTS OF STONE-MADE STRUCTURES, INDIGENOUS CERAMICS, BONES, STONE ARTEFACTS, OSTRICH EGGSHELL FRAGMENTS, CHARCOAL AND ASH CONCENTRATIONS), FOSSILS OR OTHER CATEGORIES OF HERITAGE RESOURCES ARE FOUND DURING THE PROPOSED DEVELOPMENT, SAHRA APM UNIT (TEL: 021 462 5402) MUST BE ALERTED. IF UNMARKED HUMAN BURIALS ARE UNCOVERED, THE SAHRA BURIAL GROUNDS AND GRAVES (BGG) UNIT (TEL: 012 320 8490), MUST BE ALERTED IMMEDIATELY. A PROFESSIONAL ARCHAEOLOGIST OR PALEONTOLOGIST, DEPENDING ON THE NATURE OF THE FINDS, MUST BE CONTRACTED AS SOON AS POSSIBLE TO INSPECT THE FINDINGS. IF THE NEWLY DISCOVERED HERITAGE RESOURCES PROVE TO BE OF ARCHAEOLOGICAL OR PALAEONTOLOGICAL SIGNIFICANCE, A PHASE 2 RESCUE OPERATION MAY BE REQUIRED SUBJECT TO PERMITS	

PRELIMINARY IMPACT ASSESSMENT CONSTRUCTION PHASE				
ACTIVITY	**IMPACT SUMMARY**	**SIGNIFICANCE WITHOUT MITIGATION**	**MITIGATION MEASURE**	**SIGNIFICANCE WITH MITIGATION**
			ISSUED BY SAHRA. 7. APPROPRIATE MEASURES SHOULD BE UNDERTAKEN BY THE ECO UNTIL THE ARCHAEOLOGIST / SAPS VISITS THE SITE. THIS SHOULD INCLUDE THE FOLLOWING: - SITE SHOULD BE FENCED WITH 'DANGER TAPE' - POSITION OF FINDING SHOULD BE RECORDED - DEPTH OF FINDING SHOULD BE RECORDED - DIGITAL IMAGE OF THE FINDING SHOULD BE TAKEN - NO INFORMATION ON THE FINDINGS MAY BE MADE PUBLIC WITHOUT THE CONSENT OF THE ARCHAEOLOGIST / SAPS. 8. CONSTRUCTION ACTIVITIES IN THE AREA MAY ONLY CONTINUE AFTER APPROVAL FROM THE ARCHAEOLOGIST AND SAHRA.	
NOISE AND DUST CONTROL	**DIRECT IMPACTS:** • GENERATION OF NOISE AND DUST ON SITE **INDIRECT IMPACTS:** • NOISY ON ERF • DUST ON ERF	MEDIUM NEGATIVE	1. CONSTRUCTION ACTIVITIES WILL BE LIMITED TO NORMAL DAYTIME HOURS, WHERE POSSIBLE IN ORDER NOT TO DISTURB ADJACENT LANDOWNERS UNNECESSARILY. 2. THE NOISE LEVELS WILL BE KEPT TO AN ACCEPTABLE LEVEL AND COMPLY WITH THE STANDARDS AS PER LEGISLATION.	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT				
CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
	CUMULATIVE IMPACTS: • NOISY ON ADJACENT PROPERTY • DUST ON ADJACENT PROPERTY		3. PROPER MITIGATION MEASURES WILL BE IMPLEMENTED TO LIMIT NOISE (E.G. THE INSTALLATION OF SILENCERS, WHERE REQUIRED). 4. PROPER MITIGATION MEASURES WILL BE IMPLEMENTED TO LIMIT THE FORMATION OF DUST (E.G. WETTING OF CONSTRUCTION AREA, WHEN REQUIRED). 5. THE SPEED OF THE CONSTRUCTION VEHICLES WILL BE LIMITED TO AVOID DANGEROUS CONDITIONS, THE FORMATION OF DUST AND THE EXCESSIVE DETERIORATION OF ROADS BEING USED.	
HANDLING AND STORAGE OF MATERIALS NOTE: THE MAIN OPERATION OF THE FACILITIES WILL BE THE OFFLOADING OF DANGEROUS GOODS FROM TANKERS INTO STORAGE TANKS AND THE TRANSPORTATION OF	**DIRECT IMPACTS:** • GENERATION OF WASTE ON SITE • DANGEROUS SITES / MATERIAL ON SITE **INDIRECT IMPACTS:** • POLLUTION OF SOIL AND GROUNDWATER RESOURCES ON SITE • AIR POLLUTION • ATTRACT MICE AND OTHER RODENTS TO THE SITE • ILLNESSES / INJURIES / DEATH ON SITE	MEDIUM – HIGH NEGATIVE	1. ALL CHEMICALS USED DURING THE DEVELOPMENT, INCLUDING FUEL, WILL BE STORED IN A PROPER STOREROOM OR PROTECTED AREA TO PREVENT POLLUTION. 2. VEHICLES WILL BE SERVICED AT DESIGNATED AREAS. NO OIL, DIESEL OR OTHER CHEMICALS MAY BE SPILLED OR DISCHARGED ANYWHERE. 3. WHERE APPLICABLE, THE CONTRACTORS WILL ENSURE THAT ALL RELEVANT NATIONAL, REGIONAL AND LOCAL LEGISLATION REGARDING STORAGE, TRANSPORT, USE AND DISPOSAL OF PETROLEUM, CHEMICAL, HARMFUL OR HAZARDOUS	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
MATERIALS VIA PIPES OR MANUALLY.	**CUMULATIVE IMPACTS:** • POLLUTION OF SOIL AND GROUNDWATER RESOURCES ON ADJACENT PROPERTIES • EROSION ON ADJACENT PROPERTIES. • ATTRACT SNAKES AND OTHER CARNIVORES TO THE SITE • ILLNESSES / INJURIES ON ADJACENT PROPERTIES		SUBSTANCES AND MATERIALS ARE ADHERED TO, WHERE NECESSARY. 4. CEMENT AND CONCRETE MIXING, IF APPLICABLE, WILL ONLY TAKE PLACE WITHIN THE CONSTRUCTION SITE. NO CONCRETE WILL BE MIXED DIRECTLY ON THE GROUND. 5. ALL ENVIRONMENTAL PROBLEMS OCCURRING ON THE SITE SUCH AS CHEMICAL SPILLAGE, WASTEFUL WATER DISPOSAL, ETC. WILL BE REPORTED TO THE ECO. THE ECO SHOULD IMPLEMENT BEST PRACTICES TO RECTIFY THE IMPACTS THEREOF ON THE ENVIRONMENT. 6. SPILL RESPONSE EQUIPMENT AS WELL AS FIRE EXTINGUISHERS MUST BE AVAILABLE DURING THE HANDLING AND LOADING OF HAZARDOUS WASTE (IF ANY). 7. LARGE QUANTITIES OF HAZARDOUS SUBSTANCES (SUCH AS FUEL TO BE STORED WITHIN THE PROPOSED ABOVE GROUND FUEL TANKS) ARE TO BE STORED IN BUNDED AREAS. 8. BUND WALLS WILL HAVE A CAPACITY OF AT LEAST 110% OF THE TOTAL CAPACITY OF THE STORED VOLUME. 9. NO OIL, DIESEL OR OTHER CHEMICALS MAY BE SPILLED OR DISCHARGED ANYWHERE AND CONTACT WITH	

PRELIMINARY IMPACT ASSESSMENT				
CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
			BARE SOIL SHOULD BE AVOIDED AT ALL COST. 10. OIL LEAKAGES FROM VEHICLES, EQUIPMENT, ETC. CAN CONTRIBUTE TO SOIL AND GROUNDWATER CONTAMINATION. TO PREVENT THE CONTAMINATION, MACHINERY, VEHICLES AND MATERIALS MUST ONLY BE STORED AT DEMARCATED AREAS. VEHICLES AND EQUIPMENT MUST ONLY BE PARKED IN DESIGNATED AREAS. NO SERVICING OF VEHICLES MAY BE ALLOWED ON SITE. 11. A MONITORING SYSTEM SHOULD BE IMPLEMENTED TO DETERMINE THE OCCURRENCE (IF ANY) OF ANY FUEL / OIL SPILLAGES / UNTREATED SEWER. 12. STORAGE TANKS AND ASSOCIATED INFRASTRUCTURE SUCH AS BUND WALLS, PIPES AND CONNECTIONS WILL BE MAINTAINED AND REPAIRED THROUGHOUT THE OPERATIONAL PHASE. 13. POTENTIAL SPILLAGES OR CONTAMINATED MATERIALS MUST BE MANAGED ACCORDING TO BEST PRACTICES AND THE CONTAMINATED MATERIAL MUST BE DISPOSAL OF AT A LANDFILL SITE REGISTERED TO ACCEPT HAZARDOUS WASTE. 14. THE NECESSARY MITIGATION	

PRELIMINARY IMPACT ASSESSMENT				
CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
			MEASURES SHOULD BE IMPLEMENTED IMMEDIATELY, SHOULD ANY LEAKAGES / SPILLS BE DETECTED. 15. MATERIAL STOCKPILES, SUCH AS BRICKS AND PIPES, MUST BE STABLE AND WELL SECURED TO AVOID COLLAPSE AND POSSIBLE INJURY 16. MATERIAL AND SAFETY DATA SHEETS (MSDSS) SHOULD BE READILY AVAILABLE ON SITE FOR ALL HAZARDOUS MATERIALS. MSDSS SHOULD ADDITIONALLY INCLUDE INFORMATION ON ECOLOGICAL IMPACTS AND MEASURES TO MINIMISE NEGATIVE ENVIRONMENTAL IMPACTS DURING ACCIDENTAL RELEASES OR ESCAPES. 17. STORAGE AREAS SHOULD BE KEPT CLEAN AND FREE FROM ANY ACCUMULATION OF COMBUSTIBLE MATTER (SUCH AS PAPER) AND ANY POSSIBLE SOURCE OF IGNITION SHOULD BE REMOVED. 18. IT IS RECOMMENDED THAT THE AREA USED TO FILL THE TRUCKS SHOULD BE COVERED WITH A NON-PERMEABLE STRUCTURE IN ORDER TO PREVENT THE OCCURRENCE OF SPILLAGES / SOIL CONTAMINATION.	
HAZARDOUS WASTE MANAGEMENT	**DIRECT IMPACTS:** • GENERATION OF	MEDIUM – HIGH NEGATIVE	1. HAZARDOUS WASTES MUST BE SEPARATED FROM GENERAL WASTES,	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
	WASTE ON SITE • DANGEROUS SITES / MATERIAL ON SITE **INDIRECT IMPACTS:** • POLLUTION OF SOIL AND GROUNDWATER RESOURCES ON SITE • AIR POLLUTION • ILLNESSES / INJURIES / DEATH ON SITE **CUMULATIVE IMPACTS:** • POLLUTION OF SOIL AND GROUNDWATER RESOURCES ON ADJACENT PROPERTIES • AIR POLLUTION • ILLNESSES / INJURIES ON ADJACENT PROPERTIES		STORED WITHIN SECONDARY CONTAINMENT IN APPROPRIATE CONTAINERS. 2. PROPER STORAGE FACILITIES FOR THE STORAGE OF HAZARDOUS / DANGEROUS GOODS MUST BE PROVIDED TO PREVENT THE MIGRATION OF SPILLAGE INTO THE SOIL AND OR GROUNDWATER. 3. CERTIFICATES / WAYBILLS OF HAZARDOUS WASTE DISPOSALS ARE TO BE AVAILABLE ON REQUEST AS WELL AS AUDITING PURPOSES. THIS INCLUDES THE REMOVAL OF SOIL CONTAMINATED WITH HYDROCARBONS. 4. STORAGE OF HAZARDOUS SUBSTANCES AND REFUELLING AREAS ARE TO BE BUNDED WITH AN IMPERMEABLE LINER TO PROTECT GROUNDWATER QUALITY AND MUST COMPLY WITH THE RELEVANT SANS CODES. 5. AREAS USED FOR THE STORAGE OF HAZARDOUS MATERIALS ARE TO BE CLEARLY INDICATED AS SUCH.	
HAZARDOUS AND FLAMMABLE MATERIALS: DELIVERY	**DIRECT IMPACTS:** • GENERATION OF WASTE ON SITE • DANGEROUS SITES / MATERIAL ON SITE	MEDIUM – HIGH NEGATIVE	1. ALL DELIVERIES (ESPECIALLY OF HAZARDOUS NATURE) MUST BE SUPERVISED. 2. SUBCONTRACTORS AND DELIVERY COMPANIES SHOULD BE INFORMED	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT CONSTRUCTION PHASE				
ACTIVITY	**IMPACT SUMMARY**	**SIGNIFICANCE WITHOUT MITIGATION**	**MITIGATION MEASURE**	**SIGNIFICANCE WITH MITIGATION**
	• VELD FIRES **INDIRECT IMPACTS:** • POLLUTION OF SOIL AND GROUNDWATER RESOURCES ON SITE • AIR POLLUTION • ILLNESSES / INJURIES / DEATH ON SITE • LOSS OF VEGETATION AND ANIMAL LIFE DUE TO VELD FIRES ON SITE **CUMULATIVE IMPACTS:** • POLLUTION OF SOIL AND GROUNDWATER RESOURCES ON ADJACENT PROPERTIES • AIR POLLUTION • ILLNESSES / INJURIES ON ADJACENT PROPERTIES • LOSS OF VEGETATION AND ANIMAL LIFE DUE TO VELD FIRES ON SITE AND ADJACENT PROPERTIES		OF THE DELIVERY PROCEDURES AND MADE AWARE OF RESTRICTIONS AS TO WHERE MATERIALS MAY BE STORED. 3. LOADS MUST BE SECURED TO PREVENT SPILLAGE DURING TRANSPORTATION THEREOF. 4. HAZARDOUS SUBSTANCES ARE TO BE TRANSPORTED IN SEALED DRUMS OR BAGS	
HAZARDOUS AND	**DIRECT IMPACTS:**	MEDIUM – HIGH	1. LIMIT CEMENT AND CONCRETE	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
FLAMMABLE MATERIALS: CEMENT AND / OR CONCRETE MIXING	• SOIL POLLUTION ON SITE • LOSS OF VEGETATION ON SITE **INDIRECT IMPACTS:** • SOIL AND GROUNDWATER POLLUTION • LOSS OF VEGETATION • ESTABLISHMENT OF ALIEN VEGETATION SPECIES **CUMULATIVE IMPACTS:** • SOIL AND GROUNDWATER POLLUTION • LOSS OF VEGETATION • ESTABLISHMENT OF ALIEN VEGETATION SPECIES	NEGATIVE	MIXING TO SINGLE SITES, WHERE POSSIBLE. 2. NO MIXING ALLOWED DIRECTLY ONTO THE GROUND. 3. ALL VISIBLE REMAINS OF EXCESS MATERIAL WILL BE TREATED AS HAZARDOUS WASTE. 4. SOLID CONCRETE WASTE MAY BE TREATED AS INERT CONSTRUCTION RUBBLE. HOWEVER, WET CEMENT AND LIQUID SLURRY AND CEMENT POWDER MUST BE TREATED AS HAZARDOUS WASTE	
HAZARDOUS AND FLAMMABLE MATERIALS: GAS STORAGE	**DIRECT IMPACTS:** • VELD FIRE • INHALATION OF GAS BY EMPLOYEES / VISITORS / ANIMALS ON SITE	MEDIUM – HIGH NEGATIVE	1. ALL COMBUSTIBLE MATERIALS ARE TO BE STORE AT LEAST 3 M FROM ANY GAS STORAGE AREAS. IN CASE OF ANY FLAMMABLE OR ANY OTHER GAS STORAGE AREAS, OPEN FLAMES, WELDING AND CUTTING OPERATIONS, SMOKING, ETC. SHALL BE PROHIBITED	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
	INDIRECT IMPACTS: • LOSS OF VEGETATION DUE TO VELD FIRE • ILLNESS / DEATH DUE TO INHALATION **CUMULATIVE IMPACTS:** • LOSS OF VEGETATION DUE TO VELD FIRES ON ADJACENT PROPERTIES • ILLNESS / DEATH DUE TO INHALATION		IN OR NEAR THE STORAGE AREA. 2. NO GAS WILL BE DELIVERED UNTIL THE SITE IS REGISTERED WITH LOCAL FIRE SAFETY. 3. CYLINDERS SHOULD ALWAYS BE STORED IN A WELL-VENTILATED AREA AWAY FROM SPARK, FLAMES OR ANY SOURCE OF HEAT OR IGNITION. 4. CYLINDERS SHOULD ALWAYS BE HANDLED, STORED, USED AND TRANSPORTED IN AN UPRIGHT POSITION. IT SHOULD NOT BE DROPPED, DRAGGED OR ROLLED ON THEIR SIDES OR ALLOWED TO SKID. CYLINDERS THAT ARE TOO LARGE TO BE CARRIED SHALL BE TILTED AND ROLLED ON THE RIMS OF THEIR FOOT RINGS OR BASES. 5. VALVES SHOULD BE KEPT PROPERLY CLOSED.	
HAZARDOUS AND FLAMMABLE MATERIALS: CHEMICALS, GREASE AND OIL STORAGE	**DIRECT IMPACTS:** • VELD FIRE • INHALATION OF GAS BY EMPLOYEES / VISITORS / ANIMALS ON SITE • SOIL POLLUTION ON SITE **INDIRECT IMPACTS:** • LOSS OF VEGETATION	MEDIUM – HIGH NEGATIVE	1. STORAGE AREAS MUST BE BUNDED AND HARD SURFACED IN ORDER TO PROTECT GROUNDWATER QUALITY. 2. COMPLIANCE WITH SANS CODES AND HAZARDOUS SUBSTANCES BYLAWS SHOULD BE ADHERED TO. 3. ALL LIDS MUST BE PROPERLY SEALED / CLOSED TO PREVENT VOLATILE ORGANIC COMPOUNDS (VOCS) AND OTHER POTENTIALLY HARMFUL GASEOUS COMPOUNDS FROM	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT CONSTRUCTION PHASE				
ACTIVITY	**IMPACT SUMMARY**	**SIGNIFICANCE WITHOUT MITIGATION**	**MITIGATION MEASURE**	**SIGNIFICANCE WITH MITIGATION**
	DUE TO VELD FIRE • ILLNESS / DEATH DUE TO INHALATION • SOIL AND GROUNDWATER POLLUTION ON THE APPLICABLE ERF **CUMULATIVE IMPACTS:** • LOSS OF VEGETATION DUE TO VELD FIRES ON ADJACENT PROPERTIES • ILLNESS / DEATH DUE TO INHALATION • SOIL AND GROUNDWATER POLLUTION ON ADJACENT PROPERTIES		ESCAPING.	
HAZARDOUS AND FLAMMABLE MATERIALS: HYDROCARBON SPILLAGES	**DIRECT IMPACTS:** • VELD FIRE • SOIL POLLUTION ON SITE **INDIRECT IMPACTS:** • LOSS OF VEGETATION DUE TO VELD FIRE • SOIL AND	MEDIUM – HIGH NEGATIVE	1. SPILL KITS ARE TO BE MADE PERMANENTLY AVAILABLE AT AREAS WHICH HAVE THE POTENTIAL TO BE SUBJECTED TO SPILLAGE OF HAZARDOUS SUBSTANCES AND DANGEROUS GOODS. 2. REMEDIATION OF SPILLAGES MUST BE CONDUCTED IMMEDIATELY AND CLOSED OUT WITHIN 24 HOURS. 3. NO WASTE WATER OR WASTE WILL BE	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT				
CONSTRUCTION PHASE				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
	GROUNDWATER POLLUTION ON THE APPLICABLE ERF **CUMULATIVE IMPACTS:** • LOSS OF VEGETATION DUE TO VELD FIRES ON ADJACENT PROPERTIES • SOIL AND GROUNDWATER POLLUTION ON ADJACENT PROPERTIES		DISPOSED OF INTO THE SURROUNDING ENVIRONMENT AT ANY TIME. WATER COLLECTED IN BUNDED AREAS MUST BE COLLECTED IN CONTAINERS AND DISPOSED OF AS HAZARDOUS WASTE. 4. MACHINERY WILL BE KEPT MAINTAINED IN LINE WITH MANUFACTURES SPECIFICATIONS TO MINIMISE THE RISK OF HYDROCARBON SPILLAGES. 5. AN INCIDENT REPORTING SYSTEM WILL BE IMPLEMENTED IN ORDER TO ENSURE INCIDENTS, WHERE SPILLAGES HAS OCCURRED, ARE CLOSED OUT AND APPROPRIATE MEASURES ARE TAKEN TO PREVENT FURTHER INCIDENTS. 6. INCIDENTS MUST BE REPORTED TO DWS WITHIN 24 HOURS. 7. CONTAMINATED SOIL MUST BE DISPOSED OF IN A HAZARDOUS MATERIALS SKIP AND REMOVED TO A LICENSED HAZARDOUS LANDFILL FACILITY BY A LICENSED CONTRACTOR.	

PRELIMINARY IMPACT ASSESSMENT OPERATIONAL PHASE THIS PHASE CONSISTS OF THE USE OF THE FUEL DEPOT AND ASSOCIATED INFRASTRUCTURE. MAINTENANCE AND REPAIR WILL BE UNDERTAKEN ON THE INFRASTRUCTURE WHEN NECESSARY.				
ACTIVITY	**IMPACT SUMMARY**	**SIGNIFICANCE WITHOUT MITIGATION**	**MITIGATION MEASURE**	**SIGNIFICANCE WITH MITIGATION**
OPERATIONAL ACTIVITIES	**DIRECT IMPACTS:** • DISPOSAL OF WASTE ON SITE • LOSS OF VEGETATION ON SITE • LOSS OF SOIL ON SITE • SOIL POLLUTION **INDIRECT IMPACTS:** • WASTE ON ADJACENT PROPERTIES • LOSS OF VEGETATION ON ERF • POLLUTION OF SOIL AND GROUNDWATER RESOURCES **CUMULATIVE IMPACTS:** • WASTE ON ADJACENT PROPERTIES • LOSS OF VEGETATION ON ADJACENT PROPERTIES • POLLUTION OF SOIL AND GROUNDWATER RESOURCES	MEDIUM NEGATIVE	1. MEASURES WILL BE IMPLEMENTED TO MINIMISE THE LOSS OF WATER AT ANY SECTION (INCLUDING ACTIVITIES ASSOCIATED WITH THE WASH-BAYS) 2. AN ACTION PLAN WILL BE AVAILABLE AND IMPLEMENTED IMMEDIATELY, IN CASE POLLUTION OF SOIL / GROUNDWATER OCCURS TO ENSURE THAT IT IS RECTIFIED AS SOON AS POSSIBLE. THIS INCLUDES THE OCCURRENCE OF LEAKAGES / SPILLS. 3. MAINTENANCE AND REPAIR WILL BE UNDERTAKEN ON THE INFRASTRUCTURE WHEN NECESSARY. 4. ESTABLISHMENT OF ALIEN VEGETATION WILL BE MONITORED AND ALIEN SPECIES WILL BE REMOVED BY HAND OR BY AN APPROVED CHEMICAL BEFORE GESTATION THEREOF. 5. REGULAR VISUAL INSPECTIONS OF THE CONSTRUCTION AREA, AS WELL AS THE FUEL TANKS WILL BE DONE TO IDENTIFY LEAKAGES. THESE WILL BE ATTENDED TO IMMEDIATELY IN ORDER TO LIMIT THE OCCURRENCE OF SOIL / GROUNDWATER POLLUTION. 6. A MONITORING SYSTEM SHOULD BE IMPLEMENTED TO DETERMINE THE	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT				
OPERATIONAL PHASE				
THIS PHASE CONSISTS OF THE USE OF THE FUEL DEPOT AND ASSOCIATED INFRASTRUCTURE. MAINTENANCE AND REPAIR WILL BE UNDERTAKEN ON THE INFRASTRUCTURE WHEN NECESSARY.				
ACTIVITY	**IMPACT SUMMARY**	**SIGNIFICANCE WITHOUT MITIGATION**	**MITIGATION MEASURE**	**SIGNIFICANCE WITH MITIGATION**
			OCCURRENCE OF ANY FUEL / OIL SPILLAGES FROM THE FUEL TANKS / WASH-BAY DURING THE OPERATIONAL PHASE IN ORDER TO ENSURE THAT NO SOIL / GROUNDWATER POLLUTION OCCUR. 7. PROPER MITIGATION MEASURES SHOULD BE IMPLEMENTED TO LIMIT THE OCCURRENCE OF FIRE OUTBREAKS / SPREADING FOR VELD FIRES TO ADJACENT PROPERTIES.	

PRELIMINARY IMPACT ASSESSMENT DECOMMISSIONING PHASE IT IS NOT ANTICIPATED THAT THE PROPOSED PROJECT WILL CEASE IN THE NEARBY FUTURE. HOWEVER, IF DECOMMISSIONING IS DECIDED UPON, A REHABILITATION PLAN WILL BE DEVELOPED AND SUBMITTED FOR APPROVAL. THE END-USE OF THE AREA WILL BE KEPT IN MIND DURING THE COMPILATION OF THE REHABILITATION PLAN. ACTIVITIES ASSOCIATED WITH THE DECOMMISSIONING PHASE WILL BE LIMITED TO THE REHABILITATION OF AREAS DISTURBED DURING THE CONSTRUCTION PHASE. ALL DISTURBED AREAS WILL BE REHABILITATED ACCORDING TO BEST PRACTICES. A REHABILITATION PLAN WILL BE DEVELOPED, IF IT IS DECIDED TO DECOMMISSION THE PROJECT BEFORE THE CESSATION OF THE OPERATION ASPECTS OF THE PROPOSED PROJECT. THE REHABILITATION PLAN WILL INCLUDE MANAGEMENT AND MITIGATION MEASURES TO BE IMPLEMENTED DURING THE DECOMMISSIONING OF THE PROJECT.				
ACTIVITY	**IMPACT SUMMARY**	**SIGNIFICANCE WITHOUT MITIGATION**	**MITIGATION MEASURE**	**SIGNIFICANCE WITH MITIGATION**
REHABILITATION	**DIRECT IMPACTS:** • LOSS OF VEGETATION • LOSS OF SOIL • SPILLAGES **INDIRECT IMPACTS:** • POLLUTION OF SOIL DUE TO SPILLAGES • EROSION • ESTABLISHMENT OF ALIEN VEGETATION **CUMULATIVE IMPACTS:** • POLLUTION OF SOIL AND GROUNDWATER RESOURCES • EROSION • ESTABLISHMENT OF ALIEN VEGETATION	MEDIUM NEGATIVE	1. TEMPORARY STRUCTURES AND OFFICE SITES (IF ANY) WILL BE DISMANTLED AND REMOVED AFTER COMPLETION OF THE CONSTRUCTION PHASE OF THE PROJECT. 2. ALL WASTE, EQUIPMENT, MATERIALS, ETC. USED DURING CONSTRUCTION WILL BE CLEARED FROM THE SITE. THE CONTRACTORS WILL ENSURE THAT THE SITE IS CLEARED AND REHABILITATED TO THE SATISFACTION OF THE ECO. 3. AN ALIEN PLANT CONTROL AND MONITORING PROGRAMME WILL BE IMPLEMENTED. 4. THE ESTABLISHMENT OF NATURAL OCCURRING VEGETATION WILL BE ENCOURAGED AT DISTURBED AREAS. 5. RE-VEGETATION OF DISTURBED AREAS WILL BE UNDERTAKEN WITH SITE INDIGENOUS SPECIES. 6. HYDRO-SEEDING WILL BE IMPLEMENTED IF THE ESTABLISHMENT OF NATURAL	LOW NEGATIVE

PRELIMINARY IMPACT ASSESSMENT DECOMMISSIONING PHASE IT IS NOT ANTICIPATED THAT THE PROPOSED PROJECT WILL CEASE IN THE NEARBY FUTURE. HOWEVER, IF DECOMMISSIONING IS DECIDED UPON, A REHABILITATION PLAN WILL BE DEVELOPED AND SUBMITTED FOR APPROVAL. THE END-USE OF THE AREA WILL BE KEPT IN MIND DURING THE COMPILATION OF THE REHABILITATION PLAN. ACTIVITIES ASSOCIATED WITH THE DECOMMISSIONING PHASE WILL BE LIMITED TO THE REHABILITATION OF AREAS DISTURBED DURING THE CONSTRUCTION PHASE. ALL DISTURBED AREAS WILL BE REHABILITATED ACCORDING TO BEST PRACTICES. A REHABILITATION PLAN WILL BE DEVELOPED, IF IT IS DECIDED TO DECOMMISSION THE PROJECT BEFORE THE CESSATION OF THE OPERATION ASPECTS OF THE PROPOSED PROJECT. THE REHABILITATION PLAN WILL INCLUDE MANAGEMENT AND MITIGATION MEASURES TO BE IMPLEMENTED DURING THE DECOMMISSIONING OF THE PROJECT.				
ACTIVITY	IMPACT SUMMARY	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	SIGNIFICANCE WITH MITIGATION
			OCCURRING VEGETATION DOES NOT OCCUR WITHIN REASONABLE TIME. 7. AFTER COMPLETION OF THE CONSTRUCTION PHASE, A WATERWAY MONITORING PROGRAM WILL BE INITIATED THAT ENSURE THAT ALL ARE ADEQUATELY REHABILITATED. 8. TEMPORARY CONCRETE SURFACES (IF ANY) WILL BE REMOVED AND COMPACTED AREAS RIPPED. 9. ESTABLISHMENT OF EXTENSIVE ALIEN SPECIES WILL BE MONITORED.	

SECTION E: ALTERNATIVES

As part of this report, consideration must be given to alternatives that are/may have been possible had an environmental impact assessment been undertaken prior to the commencement of the activity. Please provide a detailed description of the alternatives (whether location, technology or environmental) that were/are possible in terms of this application.

PREFERRED ALTERNATIVE

THE PREFERRED SITE IS IDEALLY LOCATED FOR THE PROPOSED FUEL DEPOT AS EASY ACCESS CAN BE OBTAINED FROM SAND DU PLESSIS AVENUE. THE PROPOSED DEVELOPMENT SITE IS SURROUNDED BY HOUSING, AGRICULTURAL AND LIGHT INDUSTRIAL LAND USES.

THE APPLICANT IS ALSO IN PROCESS TO OBTAIN LEGAL OWNERSHIP OF THE PROPOSED DEVELOPMENT PROPERTY.

ALTERNATIVE 2 - LOCALITY

AS AN ALTERNATIVE, THE CONSTRUCTION OF A FUEL DEPOT AT ANOTHER SITE, IN AN INDUSTRIAL PART OF BLOEMFONTEIN CAN BE CONSIDERED. HOWEVER, THIS OPTION IS NOT ECONOMICALLY VIABLE, AS THE APPLICANT IS IN PROCESS TO OBTAIN LEGAL OWNERSHIP OF THE PREFERRED SITE.

NO OTHER ALTERNATIVES WILL BE DISCUSSED OR CONSIDERED DUE TO THE ABOVE MENTIONED REASONS.

NO-GO ALTERNATIVE

NOT CONSTRUCTING A FUEL DEPOT. THE APPLICANT WILL THEN HAVE TO BUY FUEL FROM OTHER COMPANIES (AT A HIGHER PRICE) AND THIS WILL HAVE COST IMPLICATIONS.

SECTION F: APPENDICES

The following appendices must be attached where appropriate:

Appendix	Cross out ("☒") the box if Appendix is attached
Appendix A: Location map	X
Appendix B: Site plan(s)	X
Appendix C: Owner(s) consent(s)	X
Appendix D: Photographs	X
Appendix E: Permit(s) / license(s) from any other organ of state including service letters from the municipality	NOT SUBMITTED TO DATE
Appendix F: Additional Impact Assessment Information	X
Appendix G: Report on alternatives	X
Appendix H: Any Other (describe)	X

Appendix H_1: Property Description, including WinDeed

Appendix H_2: Facility Illustration(s)

Appendix H_3: Project Motivation

Appendix H_4: Specialist Reports:
Traffic Impact Assessment
Heritage Sensitivity
Civil Services, Water, Sewer
Electrical Report

Appendix H_5: CENTLEC Confirmation

Appendix H_6: Existing Tank Capacity

Appendix H_7: Waste Removal Agreement

Appendix H_8: Environmental Awareness Plan

Appendix H_9: Stormwater Plan

Appendix H_{10}: Public Participation

Appendix H_{11}: EMPr

Appendix H_{12}: Specialist Declaration

Appendix H_{13}: EAP Declaration

2. The Applicant

I, George Myers ,declare under oath that I -

a. am the applicant in this application;
b. appointed the environmental assessment practitioner as indicated under G1 above to act as the independent environmental assessment practitioner for this application;
c. will provide the environmental assessment practitioner and the competent authority with access to all information at my disposal that is relevant to the application;
d. am responsible for complying with the directive or conditions of any environmental authorisation issued by the competent authority;
e. understand that I will be required to pay an administration fine in terms of S24G(2) of the Act and that a decision in this regard will only be forthcoming after payment of such a fine; and
f. 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 for which the applicant or environmental assessment practitioner is responsible in terms of the Act.

Signature of the applicant:

MACK'S PETROLEUM (PTY) LTD

Name of company:

20 AUGUST 2021

Date:

Signature of the Commissioner of Oaths:

20 AUGUST 2021

Date:

ATTORNEY ADMITTED ITO ACT 53/1979

Designation:

Official stamp (below):

COMMISSIONER OF OATHS
PORTIA MANTWA MAJOSI
ATTORNEY ADMITTED I.T.O. ACT 53/1979
R.S.A. 12 BARNES STREET, BLOEMFONTEIN

113 St. Andrews Street
Bloemfontein
9300

Private Bags X 20801
Bloemfontein
9300

Tel: +27 (0)51 400 4817/19
e-mail: mkhosana@detea.fs.gov.za

SECTION G: DECLARATIONS

G1: Declarations of the EAP

1. The Independent Environmental Assessment Practitioner

I, Neil Devenish declare under oath that I –

a. act as the independent environmental assessment practitioner in this application ;
b. do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the S24G of the National Environmental Management Act, read together with the relevant Environmental Impact Assessment Regulations;
c. do not have and will not have a vested interest in the proposed activity proceeding;
d. have no, and will not engage in, conflicting interests in the undertaking of the activity;
e. undertake to disclose, to the competent authority, any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the S24G of the National Environmental Management Act, read together with the Environmental Impact Assessment Regulations, 2014 as amended on 07 April 2017;
f. will ensure that all documents will contain all relevant facts in respect of the application & that all documentation is distributed or made available to interested and affected parties. I will ensure 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 for th rectification application.
g. 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;
h. 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.

Signature of the environmental assessment practitioner:

MDA

Name of company:

3/9/2021

Date:

Signature of the Commissioner of Oaths:

3/9/2021

Date:

Designation:

Official stamp (below)

COMMISSIONER OF OATHS
PORTIA MANTWA MAJOSI
ATTORNEY ADMITTED I.T.O. ACT 53/1979
R.S.A. 12 BARNES STREET, BLOEMFONTEIN

APPENDIX A

Maps

Legend:

- Portion 1 of Plot 42, Estoire
- Proposed fuel tanks

Coordinates of proposed site:
29° 6'41.19"S, 26°16'12.26"E
29° 6.669'S; 26° 16.227'E

TYPE OF PLAN: LOCALITY PLAN

mda
Town & Regional Planners, Environmental & Development Consultants
T: 051 447 1583 | P.O. Box 20298, Willows, Bloemfontein, 9320
F: 086 455 2568 | 9 Barnes Street, Westdene, Bloemfontein, 9301

PROJECT:
THE PROPOSED CONSTRUCTION OF A DIESEL DEPOT, PORTION 1 OF PLOT 42, ESTOIRE, BLOEMFONTEIN

PROJECT BY:
MACK'S PETROLEUM

DRAWN BY:
HS

Legend:

- Portion 1 of Plot 42, Estoire
- Proposed fuel tanks
- Proposed road
- Proposed site boundary

Coordinates of proposed site:

A: 29° 6'39.80"S; 26°16'12.01"E
B: 29° 6'39.25"S; 26°16'14.46"E
C: 29° 6'39.79"S; 26°16'14.61"E
D: 29° 6'40.34"S; 26°16'12.15"E
E: 29° 6'40.36"S; 26°16'12.63"E
F: 29° 6'40.09"S; 26°16'14.07"E
G: 29° 6'40.62"S; 26°16'14.21"E
H: 29° 6'40.90"S; 26°16'12.78"E

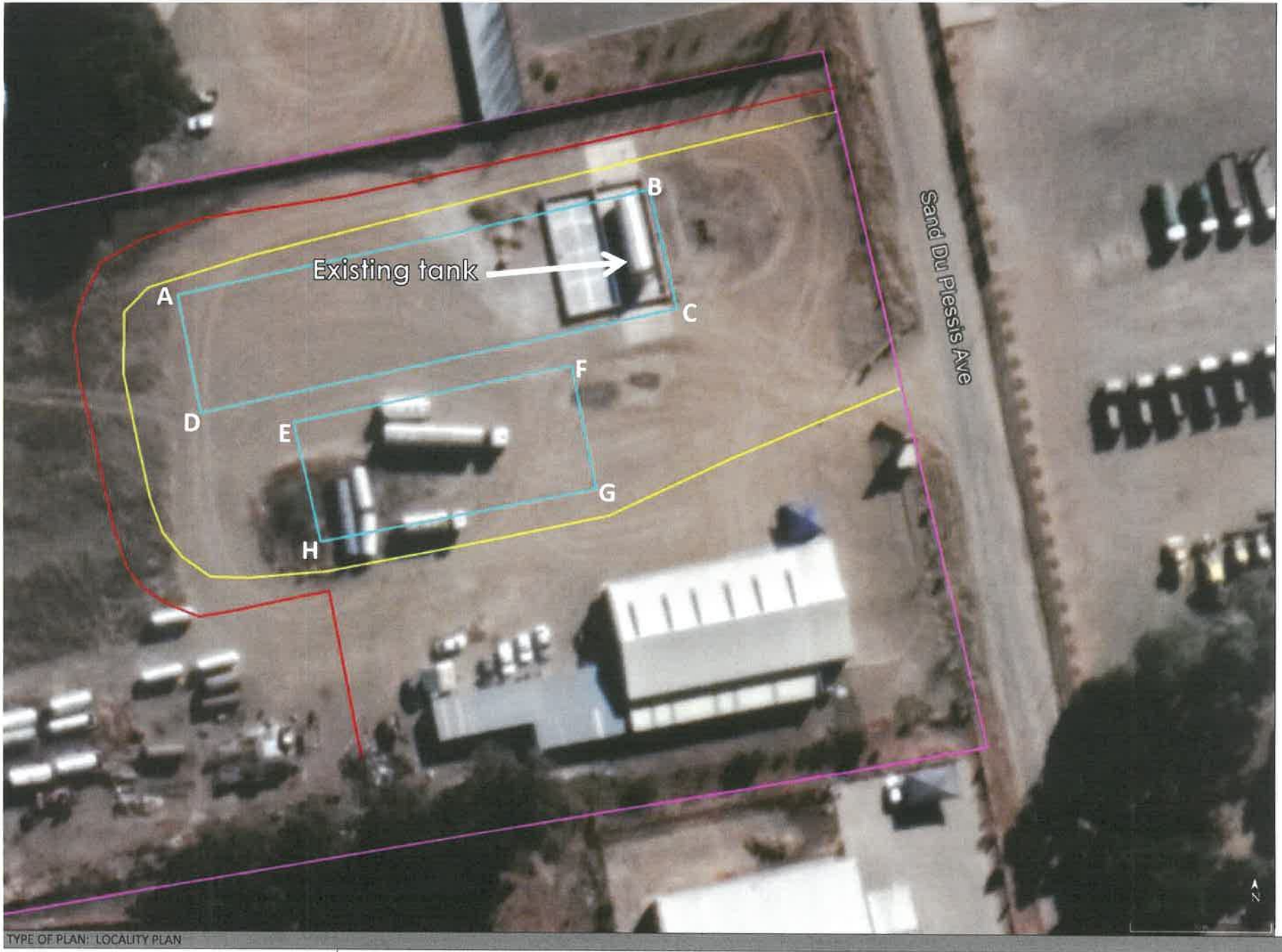
TYPE OF PLAN: LOCALITY PLAN

mda Town & Regional Planners, Environmental & Development Consultants
T: 051 447 1583 | F: 086 455 2568
P.O. Box 20298, Willows, Bloemfontein, 9320
9 Barnes Street, Westdene, Bloemfontein, 9301

PROJECT:
THE PROPOSED CONSTRUCTION OF A DIESEL DEPOT, PORTION 1 OF PLOT 42, ESTOIRE, BLOEMFONTEIN

PROJECT BY:
MACK'S PETROLEUM

DRAWN BY:
HS



Legend:

- Portion 1 of Plot 42, Estoire
- Proposed fuel tanks
- Proposed road
- Proposed site boundary

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TYPE OF PLAN: LOCALITY PLAN

mda
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T: 051 447 1583 | P.O. Box 20298, Willows, Bloemfontein, 9320
F: 086 455 2568 | 9 Barnes Street, Westdene, Bloemfontein, 9301

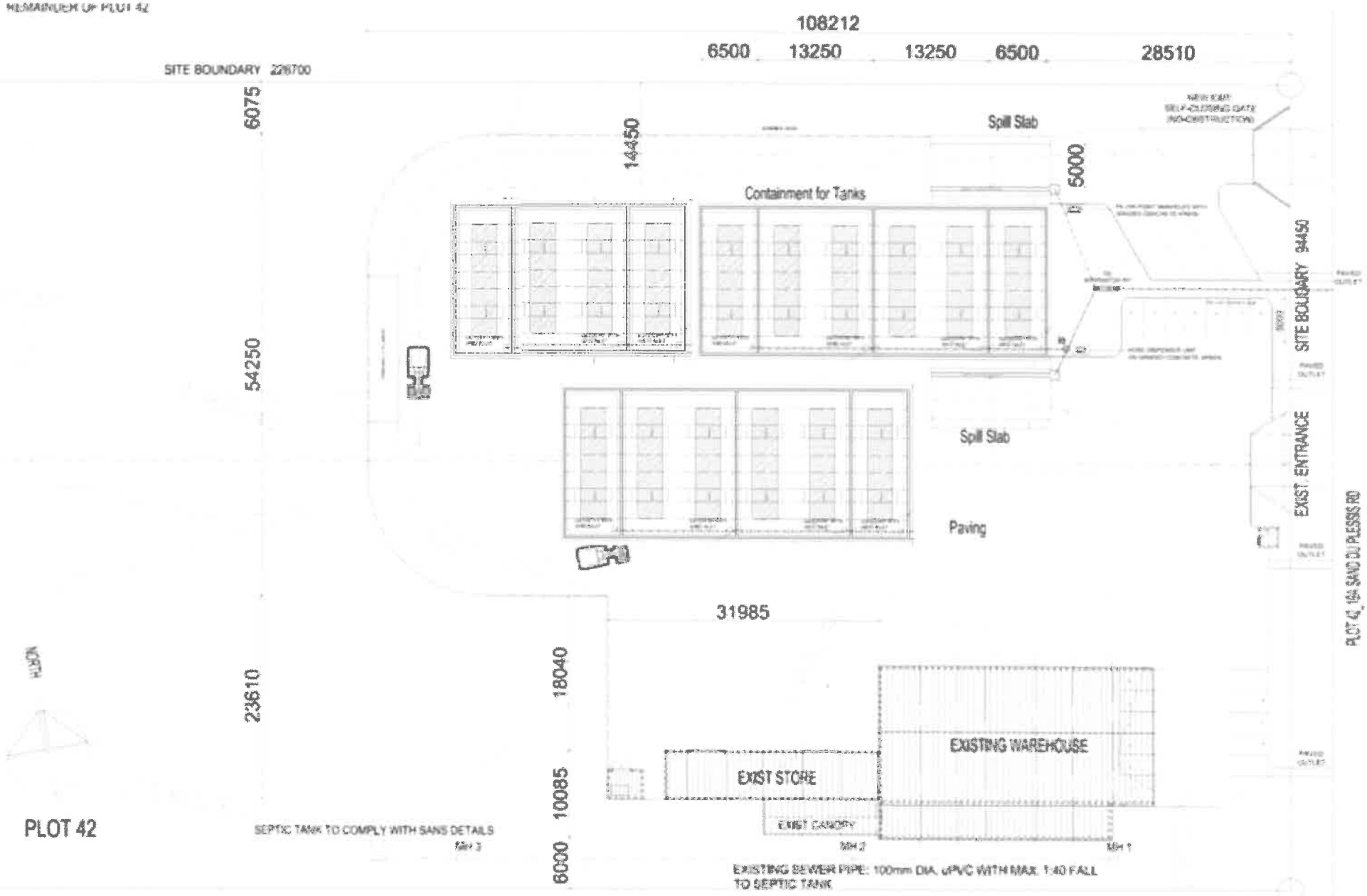
PROJECT:
THE PROPOSED CONSTRUCTION OF A DIESEL DEPOT, PORTION 1 OF PLOT 42, ESTOIRE, BLOEMFONTEIN

PROJECT BY:
MACK'S PETROLEUM

DRAWN BY:
HS

APPENDIX B

Facility Illustration(s)


MEMORANDUM OF PLOT 42
108212
6500
13250
13250
6500
28510
SITE BOUNDARY 226700
6075
14450
Spill Slab
5000
Containment for Tanks
54250
SITE BOUNDARY 94450
EXIST. ENTRANCE
Spill Slab
Paving
PLOT 41, 164 SAND DU PLESSIS RD
31985
NORTH
23610
18040
10085
6000
EXISTING WAREHOUSE
EXIST STORE
EXIST CANOPY
MH 2
MH 1
PLOT 42
SEPTIC TANK TO COMPLY WITH SANS DETAILS
EXISTING SEWER PIPE: 100mm DIA. uPVC WITH MAX. 1:40 FALL
TO SEPTIC TANK

APPENDIX C

Owner(s) Consent

WGM TRUST
Reg nr. TMP 3611

PO Box 13701
Noordstad
Bloemfontein
9302

TO WHOM THIS MAY CONCERN

This writing serves to confirm the selling of the property, Portion1/42, small holding, Estoire, Bloemfontein.
The purchaser is MACK'S PETROLEUM and the purchase agreement is currently in the drafting process with the attorneys of the WGM Trust, namely Gous Vertue & Ass. Inc.

Signed Seller
WG Myers

For WGM Trust

Signed Purchaser
J vd Merwe

For Mack's Petroleum

APPENDIX D

Photographs

Indication of existing activities operational activities on site:

APPENDIX E

Permits from other organ of state

Not available

APPENDIX F

Impact Assessment

IMPACT ASSESSMENT

The proposed construction of a diesel depot on Portion 1 of Plot 42, Estoire, Bloemfontein

Location:	Portion 1 of Plot 42, Estoire, Bloemfontein, Free State
Applicant:	Mack's Petroleum (PTY) LTD
Competent Authority:	The Free State Department of Economic, Small Business Development, Tourism and Environmental Affairs (DESTEA)
MDA Ref No:	40813
DESTEA Ref No:	EMS/4/20/02
NEAS Ref No:	FSP/EIA/0000324/2020
Report Date:	November 2020

mda Town & Regional Planners, Environmental & Development Consultants

Physical Address: 9 Barnes Street, Westdene, Bloemfontein, 9301
Postal Address: PO Box 100982, Brandhof, 9324
Tel: 051 4471583, Fax: 051 448 9839
E-mail: admin@mdagroup.co.za

Assessment

The main objective of the EIA process is to assess and quantify the potential impacts that were identified by the project team, specialists and IAPs during the Scoping Phase.

All specialist studies are included in the current document (i.e. the Draft EIA Report). Through the results and outcomes of the specialist studies, an accurate and comprehensive Impact Assessment was compiled through the concept of significance.

The concept of significance is at the core of impact identification, evaluation and decision-making during the EIA process and can be differentiated into impact magnitude and impact significance. Impact magnitude is the measurable change (i.e. intensity, duration and likelihood), while impact significance is the value placed on the change by different affected parties (i.e. level of acceptability) (DEAT, 2002).

The significance is rated from Low to High as indicated in the tables below with an explanation of the impact magnitude and a guide that reflects the extent of the proposed mitigatory measures deemed necessary.

Concluding Consequence

Consequence analysis is a mixture of quantitative and qualitative information and the outcome can be positive or negative. Several factors can be used to determine consequence. For the purpose of determining the environmental significance in terms of consequence, the following factors were chosen: Severity / Intensity, Duration and Extent / Spatial Scale. Each factor is assigned a rating of 1 to 5, as described below.

Determination of Severity

Severity relates to the nature of the event, aspect or impact to the environment and describes how severe the aspects impact on the biophysical and socio-economic environment. **TABLE 1** indicates the severity rating on a quantitative and qualitative level.

TABLE 1. SEVERITY RATING					
Type of Criteria	Rating Score				
	1	2	3	4	5
Quantitative	0-20%	21-40%	41-60%	61-80%	81-100%
Qualitative	Insignificant / Non-harmful	Small / Potentially Harmful	Significant / Harmful	Great / Very harmful	Disastrous Extremely harmful
Social/Community response	Acceptable / IAP satisfied	Slightly tolerable / Possible objections	Intolerable/ Sporadic complaints	Unacceptable / Widespread complaints	Totally unacceptable / Possible legal action
Irreversibility	Very low cost to mitigate / High potential to mitigate impacts to level of insignificance / Easily reversible	Low cost to mitigate	Substantial cost to mitigate / Potential to mitigate impacts / Potential to reverse impact	High cost to mitigate	Prohibitive cost to mitigate / Little or no mechanism to mitigate impact Irreversible
Biophysical (Air quality, water quantity and quality, waste production, fauna and flora)	Insignificant change / deterioration or disturbance	Moderate change / deterioration or disturbance	Significant change / deterioration or disturbance	Very significant change / deterioration or disturbance	Disastrous change / deterioration or disturbance

Determination of Duration

Duration refers to the amount of time that the environment will be affected by the event, risk or impact, if no intervention (e.g. remedial action) takes place. **TABLE 2** indicates the rating of duration according to a measure of the life span of the possible impact.

TABLE 2. DURATION RATING	
Rating	Description
1: Low	One month
2: Low-Medium	Between 1 and three months
3: Medium	3 months to 1 year
4: Medium-High	1 to 10 years
5: High	More than 10 years

Determination of Extent / Geographical Extent

Extent refers to the spatial influence related to an impact (thus immediate area / surrounding area / regional/ national / international).

TABLE 3. EXTENT RATING AND DESCRIPTION		
Rating	Exposure	Description
1: Low	Very limited	Immediate site / limited to site and immediate areas
2: Low-Medium	Limited	Surrounding areas
3: Medium	Municipal area	Municipal area
4: Medium-High	Province / Region	Province
5: High	National / international	National / International

Determination of Overall Consequence

Overall consequence is determined by adding the factors determined above (severity, duration and extent) as summarised in the example below, and then dividing the sum by 3 (3 factors; severity, duration and extent).

TABLE 4. EXAMPLE OF OVERALL CONSEQUENCE CALCULATION	
Consequence	Rating
Severity	3
Duration	2
Extent	4
Subtotal: 9	
Total Consequence : 3	

Likelihood

The determination of likelihood is a combination of Frequency and Probability. Each factor is assigned a rating of 1 to 5, as described below and in **TABLE 5** and **TABLE 6**.

Determination of Frequency

Frequency refers to how often the specific activity, related to the event, aspect or impact, is undertaken.

TABLE 5. RATING AND DESCRIPTION OF FREQUENCY	
Rating	Description
1: Low	Once / twice a year
2: Low-Medium	Once or more every 6 months
3: Medium	Once or more on a monthly basis
4: Medium-High	Once or more on a weekly basis
5: High	On a daily basis

Determination of probability

Probability refers to how often the activity/event or aspect has an impact on the environment.

TABLE 6. RATING AND DESCRIPTION OF PROBABILITY	
Rating	Description
1: Low	Almost never / almost impossible
2: Low-Medium	Very seldom / highly unlikely
3: Medium	Infrequent / unlikely / seldom
4: Medium-High	Often / regularly / likely / possible
5: High	Daily / highly likely / definitely

Overall likelihood

Overall likelihood is calculated by adding the factors determined above and summarised below, and then dividing the sum by 2.

TABLE 7: EXAMPLE CALCULATING OVERALL LIKELIHOOD	
Overall Likelihood	Rating
Frequency	3
Probability	2
Subtotal: 5	

TABLE 7. EXAMPLE CALCULATING OVERALL LIKELIHOOD	
Overall Likelihood	Rating
Total Likelihood: 2.5	

Determination of Overall Environmental Significance

The multiplication of overall consequence with overall likelihood will provide the environmental significance, which is a number that will then fall into a range of LOW, LOW-MEDIUM, MEDIUM, MEDIUM-HIGH or HIGH, as shown in **TABLE 8**.

TABLE 8. DETERMINATION OF OVERALL ENVIRONMENTAL SIGNIFICANCE AND DESCRIPTION					
Significance / risk	Low	Low-Medium	Medium	Medium-High	High
Overall Consequence Multiplied (x) by Overall Likelihood	1 – 4.9	5 – 9.9	10 – 14.9	15 – 19.9	20 - 25

Qualitative Description of Environmental Significance

The qualitative description relating to environmental significance is used to supply us with an indication of the nature of the significance of a risk or potential impact.

This can be used as a valuable tool to guide the decision making process relating to a particular event, impact or aspect.

TABLE 9. QUALITATIVE DESCRIPTION & RATING OF SIGNIFICANCE					
Significance	Low	Low-Medium	Medium	Medium-High	High
Impact Magnitude	• Impact is of very low order and therefore likely to have very little real effect.	• Impact is of very low order and therefore likely to have very little real effect. • Acceptable	• Impact is real, and potentially substantial in relation to other impacts. • Can pose a risk	• Impact is real and substantial in relation to other impacts. • Pose a risk to the company.	• Impact is of the highest order possible. • Unacceptable. Fatal flaw.
Action Required	• Maintain current management measures. • Where possible improve.	• Maintain current management measures. • Implement monitoring and evaluate to determine potential increase in risk. Where possible improve.	• Implement monitoring. Investigate mitigation measures and improve management measures to reduce risk, where possible.	• Improve management measures to reduce risk.	• Implement significant mitigation measures or implement alternatives

Should any fatal flaws be identified during the EIA process which will be indicated by a "high" significance rating, the activity related with the potential impact will undergo the "no-go" alternative (i.e. be excluded from the proposed project) if the impact cannot not be managed and / or mitigated to acceptable levels.

ENVIRONMENTAL IMPACT ASSESSMENT

Geology and Soil

The following geology and soil related impacts have been identified and may occur as a result of the construction and operation phase of the proposed development;

- Potential loss of topsoil.
- Alteration of soil characteristics due to possible spillages / disturbances.
- Contamination of soil as a result of chemical / hazardous substances / pollution / sewage leaks.

TABLE 10. GEOLOGY AND SOIL ASSESSMENT

Assessed aspect	Without Mitigation		With Mitigation	
	Value	Description	Value	Description
Severity	2	Small / Potentially Harmful	1	Insignificant / Non-harmful
Duration	5	High	2	Low-Medium
Extent	2	Low-Medium	1	Low
Consequence	**3**		**1**	
Frequency	2	Low-Medium	1	Low
Probability	3	Medium	2	Low-Medium
Likelihood	**2.5**		**1.5**	
Significance	7.5	Low-Medium	1.5	Low
Impact Magnitude	Impact is of low order and therefore likely to have very little real effect.		Impact is of very low order and therefore likely to have very little real effect.	
Status	Negative		Negative	

As depicted in **TABLE 10** the environmental significance of the geology and soil impacts related to the proposed development can qualitatively be described as LOW-MEDIUM. The possible impact is of low order and therefore likely to have little real effect. The implementation of monitoring, mitigation and management measures are necessary in order to reduce risk where

possible. This can be motivated by the mitigated environmental significance depicted – LOW.

Proposed Mitigation measures

- Remove topsoil prior to construction.
- Topsoil stockpiling in such a manner as to avoid / prevent the loss thereof.
- No topsoil should be used for construction purposes.
- Topsoil should only be used post construction for rehabilitation, landscaping, storm water system construction and levelling purposes.
- All new sewage pipes should be sealed during the construction phase.
- The upgrading / installation of an adequate sewage system should be constructed / implemented in order to prevent leakages / spillage during the operation phase. This must also include a maintenance and monitoring plan for the sewer system.
- Sewer infrastructure must be equipped with all necessary access chambers in order to prevent / facilitate repairs of blockages in the lines which may lead to overflowing (where necessary).
- During the construction phase all equipment must be maintained. The necessary precautionary measures must be taken for example
  - drip trays must be used to protect soil against spillages of hazardous chemicals.
  - all hazardous substances must be stored in a demarcated area lined with an impermeable floor and walls with sufficient capacity in terms of storage.
- Any leakage / spillage events must be reported immediately and the contaminated / affected soil must be removed and disposed of as hazardous waste.
- Fuel storage tanks should be installed in an area with a buffer wall that has the capacity of 110% of the fuel storage tanks.

Climate

It is not expected that the proposed development will have any impact on the climate of the area.

Air Quality and Noise

The following air quality and noise related impacts have been identified and may occur as a result of the construction and operation phase of the proposed development;

- The majority of air quality and noise impacts will occur during the construction phase of the proposed development.
- Air quality impacts will be due to the operation of construction vehicles, the clearance of vegetation and other related construction activities.
- Noise impacts will be elevated during the construction phase due to construction activities.
- The impact is expected to be medium during the construction activities. However with the implementation of management tools such as the limiting of construction activities where possible to normal working hours, the significance of noise can be made bearable to surrounding land owners.
- The existing land uses in the area ranges from residential, agricultural and light industrial. It is therefore not foreseen that the proposed activities will have a potential increase in the ambient noise levels of the area during the operational phase.

TABLE 11. AIR QUALITY AND NOISE ASSESSMENT				
Assessed aspect	Without Mitigation		With Mitigation	
	Value	Description	Value	Description
Severity	2	Small / Potentially Harmful	1	Insignificant / Non-harmful
Duration	3	Medium	2	Low-Medium
Extent	2	Low-Medium	1	Low
Consequence	**2.3**		**1.3**	
Frequency	5	High	2	Low-Medium
Probability	2	Medium	1	Low-Medium
Likelihood	**3.5**		**1.5**	
Significance	**8.2**	**Low-Medium**	**2**	**Low**
Impact Magnitude	Impact is of very low order and therefore likely to have very little real effect.		Impact is of very low order and therefore likely to have very little real effect.	
Status	Negative		Negative	

As depicted in **TABLE 11** the environmental significance of the air quality and noise impacts related to the proposed development can qualitatively be described as LOW-MEDIUM. The possible impact is of a very low order without mitigation and therefore likely to have very little real effect. Mitigation measures should be investigated and management measures should be implemented in order to reduce risk where possible.

Proposed Mitigation Measures

- In order to reduce dust emissions on the site during the construction phase of the proposed development dust suppression should be implemented.
- Strict adherence to speed limits on site can ensure minimum travel speeds of vehicles as well as minimum noise and dust levels.
- Construction activities should be avoided during very windy conditions, where possible.
- Vehicles and construction equipment should be serviced on a regular basis in order to reduce emissions during operation.
- No open fires or waste burning should be allowed on site.
- Noise levels can be kept to an acceptable minimum by restricting the use of construction vehicles and noisy activities to normal working hours.

Ground and Surface Water

The following ground and surface water related impacts have been identified and may occur as a result of the construction and operation phase of the proposed development;

- Contamination due to spillages of hazardous chemicals or substances during the construction phase.
- Surface water resources downstream of the proposed development could be contaminated / silted due to surface water runoff during rain events.
- Contamination of ground and downstream surface water during the construction phase by waste as a result of incorrect or inappropriate storage practices.
- Contamination of ground and downstream surface water due to sewage leaks during construction and operation.
- Contamination of ground and downstream surface water during the operational phase by fuel spillages (from the fuel storage tanks on site).

TABLE 12. GROUND AND SURFACE WATER ASSESSMENT

Assessed aspect	Without Mitigation		With Mitigation	
	Value	Description	Value	Description
Severity	2	Small / Potentially Harmful	1	Insignificant / Non-harmful
Duration	4	Medium-High	2	Low-Medium
Extent	3	Medium	2	Low-Medium
Consequence	**2.3**		**1.3**	
Frequency	3	Medium	2	Low-Medium
Probability	2	Medium	1	Low-Medium
Likelihood	**3.5**		**1.5**	
Significance	**7.5**	**Low-Medium**	**2**	**Low**

Impact Magnitude	Impact is of very low order and therefore likely to have very little real effect.	Impact is of very low order and therefore likely to have very little real effect.
Status	Negative	Negative

As depicted in **TABLE 12** the environmental significance of the ground and surface water impacts related to the proposed development can qualitatively be described as LOW-MEDIUM. The possible impact is of a very low order without mitigation and therefore likely to have very little real effect. Mitigation measures should be investigated and management measures should be implemented in order to reduce risk where possible. A monitoring system can also be implemented to further reduce risk.

Proposed Mitigation Measures

- Potentially hazardous substances must be stored on an impermeable surface inside a bunded area to prevent seepage of the substance and pollution of the groundwater.
- In the event of spillages of any potentially hazardous substances the area should be cleaned immediately by removing the spill and the contaminated soil and disposing thereof as hazardous waste.
- Proper engineering and maintenance and management of the sewage systems must be conducted / implemented. Sewer systems should be inspected and cleaned regularly.
- Adequate storm water management measures and systems must be implemented and maintained before and during construction as well as the operational phase of the proposed development.
- Good housekeeping measures should be implemented to prevent general waste and littering from occurring in downstream surface water resources.

Land Use

The following land use impacts have been identified and may occur as a result of the construction and operation phase of the proposed development;

- The land-use is currently zoned as Special Business: Type 2. Land Use for purposes of Special Business: Type 2 will be lost on the development property.
- The impact will be low as similar types of land-uses occur on nearby properties.

TABLE 13. LAND USE

Assessed aspect	Without Mitigation		With Mitigation	
	Value	Description	Value	Description
Severity	1	Insignificant / Non-harmful	1	Insignificant / Non-harmful
Duration	5	High	5	High
Extent	1	Low	1	Low
Consequence	**2.3**		**2.3**	
Frequency	5	High	5	Low-Medium
Probability	1	Medium	1	Low-Medium
Likelihood	**3**		**3**	
Significance	**7**	**Low-Medium**	**7**	**Low-Medium**
Impact Magnitude	Impact is of very low order and therefore likely to have very little real effect.		Impact is of very low order and therefore likely to have very little real effect.	
Status	Negative		Negative	

As depicted in **TABLE 13** the environmental significance of the Land Use impacts related to the proposed development can qualitatively be described as LOW-MEDIUM. The possible impact is of a very low order without mitigation and therefore likely to have very little real effect. Mitigation measures should be investigated and management measures should be implemented in order to reduce risk where possible. A monitoring system can also be implemented to further reduce risk.

Proposed Mitigation Measures

- The sense of place should be protected during all phases of the proposed development by limiting the construction activities to a minimum area.
- Good housekeeping should be ensured during the construction phase in order to keep the area clean.
- Refuse removal should be conducted on a regular basis.

Vegetation and Animal Life

The following impacts on the vegetation and animal life of the proposed site have been identified and may occur as a result of the construction and operation phase of the proposed development;

- Due to the existing land use, the site is in a degraded condition and the natural vegetation composition has been transformed to a large degree.
- The entire proposed development site is highly disturbed and transformed by past and present human activities and is entirely surrounded by urban sprawl.
- It was identified that no suitable habitat, on and surrounding the proposed development site for any Red Data faunal species and no rupiculous (living among, inhabiting, or growing on rocks), arboreal (pertaining to moving about, living in or among trees) or wetland habitats are present.
- The site was found to be disturbed and that the proposed development would not have a negative effect in on any Red Data faunal species or any other faunal species found on site.
- No natural / indigenous vegetation is located on site.
- During the construction phase, less than 1 ha of vegetation will be removed.
- Transformation of the land will occur.
- Vegetation growth as well as the habitats of certain species will be disturbed.
- Destruction of habitat and loss of animal life may occur.
- The growth and distribution of alien plant species may occur.
- Loss of vegetation due to fires made on-site during the construction phase may occur.

TABLE 14. VEGETATION				
Assessed aspect	Without Mitigation		With Mitigation	
	Value	Description	Value	Description
Severity	2	Small / Potentially Harmful	1	Insignificant / Non-harmful
Duration	3	Medium	2	Low-Medium
Extent	2	Low-Medium	1	Low
Consequence	**2.3**		**1.3**	
Frequency	5	High	2	Low-Medium
Probability	2	Medium	1	Low-Medium

Likelihood	3.5		1.5	
Significance	8.2	Low-Medium	2	Low
Impact Magnitude	Impact is of very low order and therefore likely to have very little real effect.		Impact is of very low order and therefore likely to have very little real effect.	
Status	Negative		Negative	

As depicted in **TABLE 14** the environmental significance of impacts on the vegetation related to the proposed development can qualitatively be described as LOW-MEDIUM. The possible impact is of a very low order without mitigation and therefore likely to have very little real effect. Mitigation measures should be investigated and management measures should be implemented in order to reduce risk where possible. A monitoring system can also be implemented to further reduce risk.

Proposed Mitigation Measures

- Indigenous vegetation will not re-establish on the site when construction activities has come to an end. Only if the site is rehabilitated (which is not foreseen) will the indigenous vegetation re-establish.
- It should be noted that the site is already disturbed due to the existing activities being undertaken on the property.
- The loss of vegetation will be localised (to the construction site).
- Due to the current operational activities on site, it is not believed that a large number of animal species use the site for feeding / sleeping activities.
- Some animal habitats will be disturbed. However, this will be localised.
- The growth of the population, increasing urbanisation and expansion of cities will result of the relocation of many animals and the loss of habitats in these areas on the outer boundaries of towns and cities as they expand.
- Alien plant species will be removed before seeding to prevent the spread of these plants to the surrounding environment. Alien vegetation should be controlled throughout the lifetime of the project.
- No open fires will be allowed on the site.
- The hunting, capturing and trapping of fauna should be prevented by making this a punishable offense during the construction phase and inhabitation of the development (capturing and removal is only to be undertaken by a suitable, qualified person).

Cultural Heritage

The proposed site and surrounding areas are not known for elements of archeological or paleontological value. As far as the palaeontological heritage is concerned, the proposed development may proceed with no additional heritage assessments necessary; however it is strongly recommended that all excavation activities are restricted within the boundaries of the development footprint. Furthermore in the event of archaeological findings (if any), these findings should be recorded and reported to SAHRA. No construction activities in the area (where archaeological or palaeontological findings were observed) may proceed without the authorisation from SAHRA.

Aesthetics

The following impacts on the aesthetics of the proposed site have been identified and may occur as a result of the construction and operation phase of the proposed development;

- The land-use is currently zoned as Special Business: Type 2.
- The existing land uses in the area ranges from residential, agricultural and light industrial.
- The proposed fuel depot will not have a large impact on the aesthetics of the surrounding areas, due to the current activities being undertaken in the nearby area.
- During the construction phase of the proposed development there will be a negative impact on the aesthetics of the surrounding land owners.
- During the construction phase there may also be a negative visual impact on surround land and road users.

TABLE 15. AESTHETICS				
Assessed aspect	Without Mitigation		With Mitigation	
	Value	Description	Value	Description
Severity	2	Small / Potentially Harmful	1	Insignificant / Non-harmful
Duration	3	Medium	2	Low-Medium
Extent	2	Low-Medium	1	Low
Consequence	**2.3**		**1.3**	
Frequency	4	High	2	Low-Medium

Probability	2	Medium	1	Low-Medium
Likelihood	**3.5**		**1.5**	
Significance	**7**	**Low-Medium**	**2**	**Low**
Impact Magnitude	Impact is of very low order and therefore likely to have very little real effect.		Impact is of very low order and therefore likely to have very little real effect.	
Status	Negative		Negative	

As depicted in **TABLE 15** the environmental significance of impacts on the aesthetics related to the proposed development can qualitatively be described as LOW-MEDIUM. The possible impact is of a very low order without mitigation and therefore likely to have very little real effect. Mitigation measures should be investigated and management measures should be implemented in order to reduce risk where possible. A monitoring system can also be implemented to further reduce risk.

Proposed Mitigation Measures

- During the construction phase of the proposed development the site should be kept clean at all times and solid and building waste must be removed on a regular basis.
- Contractors should strictly adhere to the EMPr and also make sure that they implement best practices throughout the construction phase.

Traffic

The following traffic impacts have been identified and may occur as a result of the construction and operation phase of the proposed development;

- The site is zoned Special Business 2. With the zoning allowing Business Buildings, which allows shops, any other use such as the fuel depot and the overnight facilities will result in a reduction in the development potential, and thus a reduction in the potential trip generation.
- Due to the following, the expected trip generation of the applied for facilities will be limited:
  - The fuel depot will only serve the developers own fleet of trucks;
  - The site licence from the Department of Mineral Resources will only allow for wholesale fuel sales and no retail; and
  - The site is relatively inaccessible from higher order roads.
  - The overnight facilities will be used by employees

- Considering the above, the change in land use will reduce the potential trip generation of the development and is not expected to generate in excess of 50 peak hour trips, with a result that capacity analyses are not required.
- The layout makes provision for two accesses consisting of an entrance and a separate exit. This is contrary to what is prescribed by TRH 26, namely:
    - Normally only one access per erf is allowed. However, developments such as shopping centres should preferably have separate accesses for private vehicles and for large delivery vehicles. A separate access may also be desirable for use by public transport.
    - The spacing and separation requirements of this manual, however, are applicable to each individual access and may not be relaxed to accommodate the additional accesses.
    - In an industrial area with access from a lower classification road, two accesses can possibly be considered, although considering the available space there is no obvious reason why two accesses should be provided.

- Given the fact that provision is made for a separate entrance and exit, and considering the zoning of the site, the entrance and exit will be high volume accesses and will thus as per TRH 26 have to comply with the appropriate access spacing.
- The access spacing as per the plan is approximately 35m centreline to centreline.
- If assumed as low volume truck accesses as per UTG10 for a commercial local street, the access separation should be 20m, but considering the zoning of the site, the entrance and exit could be high volume motor car and mixed driveways. In the latter case the access spacing should be 50m centreline to centreline based on UTG10.
- Considering the above, it is thus recommended that only one access be provided, but if there is sufficient motivation why a separate entrance and exit should be provided, these will have to be spaced at 50m centreline to centreline.
- Sight distances should be acceptable.
- Sufficient space should be available on the site to provide the required parking; this can be addressed as part of building plans.

TABLE 16. TRAFFIC				
Assessed aspect	Without Mitigation		With Mitigation	
	Value	Description	Value	Description

Severity	2	Small / Potentially Harmful	1	Insignificant / Non-harmful
Duration	3	Medium	2	Low-Medium
Extent	2	Low-Medium	1	Low
Consequence	**2.3**		**1.3**	
Frequency	5	High	5	Low-Medium
Probability	3	Medium	1	Low-Medium
Likelihood	**3.5**		**1.5**	
Significance	**9.3**	**Low-Medium**	**4**	**Low**
Impact Magnitude	Impact is of very low order and therefore likely to have very little real effect.		Impact is of very low order and therefore likely to have very little real effect.	
Status	Negative		Negative	

As depicted in **TABLE 16** the environmental significance of impacts on the aesthetics related to the proposed development can qualitatively be described as LOW-MEDIUM. The possible impact is of a very low order without mitigation and therefore likely to have very little real effect. Mitigation measures should be investigated and management measures should be implemented in order to reduce risk where possible. A monitoring system can also be implemented to further reduce risk.

Proposed Mitigation Measures

- During the construction phase construction vehicles should limit / schedule their transport activities outside of peak traffic hours, where possible.
- The change in land use is not expected to generate in excess of 50 peak hour trips during any peak period and in fact trip generation will be quite low. A formal Traffic Impact Statement with Capacity Analyses was thus not warranted.
- Considering the expected trip generation of the development, rezoning of the property as per the zoning application will not have a notable impact on traffic volumes in the area.
- The original rezoning conditions of Plot 42 were not implemented and the site has significant development potential. The planned rezoning will reduce the development potential and is not expected to generate in excess of 50 peak hour trips.

- As part of the original rezoning and subdivision of Plot 42, certain road reserves should have been registered on the property. These were not registered and due to construction of buildings, the originally planned road network in the area is no longer possible. As a result, the future road network alignments will have to be reviewed.

ASSUMPTIONS, UNCERTAINTIES OR GAPS IN KNOWLEDGE

Assumptions:

- The scope is limited to assessing the potential impacts associated with the proposed development; therefore the effect on the surrounding environment is based on the current land use.
- All information provided by MDA and specialists involved is deemed valid and correct at the time it was provided.
- During the public participation process, no indigenous local information surfaced, it is assumed that there are no sensitive cultural sites on the proposed site.
- The EAP does not accept any responsibility in the event that additional information comes to light at a later stage of the process.

Limitations / Uncertainties:

- None at this stage.

ENVIRONMNETAL MANAGEMENT PROGRAMME

The EMPr (**Annexure L**) has been included in the EIA phase of the proposed development.

Objectives of the EMPr

The EMPr aims to fulfil the requirements in terms of the National Environmental Management Act (Act 107 of 1998), with the following objectives:

- To identify, predict and evaluate actual and potential impacts on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimizing negative impacts, maximizing benefits and promoting compliance with the principles of environmental management;
- To identify and employ the modes of environmental management best suited to ensuring that the activity is pursued in accordance with best environmental management practices;

- To be able to respond to unforeseen events; and
- To provide feedback on compliance.

Implementation of the EMPr

The applicant, namely Mack's Petroleum (PTY) LTD is responsible for the implementation of the EMPr. All contractors should be supplied with a copy of the EMPr and should ensure that construction staff adheres to the mitigation measures.

ENVIRONMENTAL AWARENESS PLAN

Objectives of the Environmental Awareness Plan

It is important that the employees understand how each action of the project may influence the environment. It is just as important that each person understand the management strategies as it ensures that the impact on the environment is kept to a minimum.

The Environmental Awareness Plan should be sufficient to make all those involved in the proposed project aware of the risks that may occur as well as the necessary mitigation required to minimise the risks involved. Please refer to **Annexure M** for the Environmental Awareness Plan.

ENVIRONMENTAL IMPACT STATEMENT

Unfortunately during any development it is impossible to entirely avoid negative environmental impacts. Therefore it is of utmost importance that these negative environmental impacts should be minimised and limited by using appropriate mitigation and management measures.

Following the Scoping Phase of the EIA process a number of environmental impacts, concerns and issues were identified. These impacts, issues and concerns were found to most certainly occur during the construction and operational phases of the proposed development.

The identified impacts, concerns and issues are shortly listed below;

- Loss of topsoil,
- Possible changes in soil characteristics,
- Surface flooding,
- Air quality impacts,

- Elevated noise impacts,
- Ground and downstream surface water contamination,
- Flooding and erosion,
- Habitat disturbances affecting fauna and flora species,
- Aesthetic impacts,
- Traffic impacts,
- Possible damage / destruction to unfound heritage sites.

Following the assessment process of the identified impacts it was found that the majority of the identified impacts can be reduced in terms of environmental significance ratings to Low or Low-Medium. This can be done by implementing certain mitigation and management tools along with very strict adherence to the final EMPr. Thus impact occurrence due to the proposed development can be minimised to a great extent and furthermore also be limited to site specific and local extents.

Inputs from the required specialists were obtained as part of the compilation of the current document.

The applicant provides road transportation of bulk fuel products and operates its own fleet of tankers. Thus, the main purposed of the project is to construct fuel tanks for the storage of fuel. The stored fuel will mainly be used by the applicant to fill the tanks of its own fuel transportation trucks.

Due to the current land use, the site is in a degraded condition and the natural vegetation composition has been transformed to a large degree. The proposed layout will result in the lowest environmental impact as long as the mitigation measures as stipulated in the current document as well as the EMPr are implemented.
The proposed fuel depot area covers an area of degraded land, containing several modern commercial building structures. No historically significant building structure older than 60 years of age is present at the site. Existing roads already provide access to the site. The proposed development will take place on land formerly altered by modern industrial / commercial activities. Potential archaeological impact at the proposed site is considered to be non-existent. Underlying geology at the site consist of potentially fossil-bearing Beaufort Group (Adelaide Subgroup) strata. Superficial sediments are made up of residual soils of varying depth that are not considered to be palaeontologically significant. The likelihood of palaeontological impact on bedrock sediments underneath the degraded overburden is considered to be extremely low given latter's overall depth, the low topography terrain and

the fact that no subsurface development is planned for this project. Thus, as far as the palaeontological heritage is concerned, the proposed development may proceed with no additional heritage assessments necessary, provided that all excavation activities are restricted to within the boundaries of the development footprint.
The change in land use is not expected to generate in excess of 50 peak hour trips during any peak period and in fact trip generation will be quite low. Considering the expected trip generation of the development, rezoning of the property as per the zoning application will not have a notable impact on traffic volumes in the area. An acceptable site layout is possible, in terms of a Traffic Impact point of view.

The proposed site in light of all the above is suitable for the proposed development. This can mainly be attributed to the compatibility of the proposed development with the surrounding area.

The applicant identified the need to construct fuel tanks for the storage of fuel. The stored fuel will mainly be used by the applicant to fill the tanks of its own fuel transportation trucks.

The site is extremely well located for this type of development given numerous favourable locality aspects such as;

a) Access
   Easy access to the site can be obtained from Sand du Plessis Avenue.

b) Surrounding land uses
   The proposed development site is surrounded by housing, agricultural and light industrial land uses. This makes the proposed development suitable to the area.

During the PPP no objections against the proposed development were received. The issues and concerns raised by IAPs have been included in this report as well as the Environmental Impact Assessment.

Should the described project not be authorised by the competent authority, the proposed fuel depot will not be constructed. The applicant will then have to buy fuel from other companies (at a higher price) and this will have cost implications to the applicant as well as the fuel companies that the applicant are to be serving.

EAP RECOMMENDATION

It is the opinion of MDA that the development is environmentally feasible due to the fact that the majority of environmental impacts can be mitigated to a satisfactory level.

However it should be noted that the following recommendations along with the recommendations raised by the various appointed specialists as well as Registered IAPs should be deemed important and considered;

- The loss of topsoil during the construction phase should be avoided as far as possible by implementing the mitigation measures as set out in the EMPr.
- Dust suppression and noise management measures must be implemented as per the EMPr.
- No open fires or waste burning should take place on site.
- Potentially hazardous substances should be stored on an impermeable surface and inside a bunded area. In the event of hazardous substance spillage the area must be cleaned immediately and authorities should be notified.
- Adequate storm water management measures and systems must be implemented and maintained before during and after construction activities.
- Good housekeeping measures should be implemented at all times during the construction phase.
- No endangered or protected plant species are to be harmed / removed from the site without a valid permit. In the event that such plants are encountered they should be transplanted from the site.
- Alien plant species will be removed before seeding to prevent the spread of these plants to the surrounding environment. Alien vegetation should be controlled throughout the lifetime of the project.
- The hunting, capturing and trapping of fauna should be prevented by making this a punishable offense during the construction phase and the operational phase of the development (capturing and removal is only to be undertaken by a suitable qualified person).
- In the event that during the construction phase of the proposed development any archaeological discoveries are made construction works should stop, the findings must be recorded and reported to SAHRA immediately. No construction activities at the area where archaeological discoveries were made, may proceed without authorization from SAHRA.
- Bund wall of fuel tanks should be within the capacity to be able to contain spillages

- All effluent from the wash bay should be disposed of in a properly constructed drain and must be situated as far as possible away from a watercourse
- Only domestic wash waster may be allowed to enter the drain and any effluent containing oil and grease or other industrial substances must be collected in a suitable receptacle and removed from site.
- The name of the Hazardous Waste Company to be used for the removal of hazardous material should be provided to DWS. A written agreement between the applicant and the said company should also be forwarded to DWS.
- The applicant should ensure that the septic tank is approved and is sited in such a way that it does not cause water or other pollution. Mitigation measures must be in place to prevent contamination of local groundwater and surface water.
- The applicant should indicate where the effluent will be discharged after it is drained from the septic tank. The applicant should clearly indicate how the septic tanks will be handled and Authorisation for Section 21(g) of the National Water Act (Act 36 of 1998) should be obtained if required.
- It is important that any spillages of chemicals are reported to DWS and relevant authorities.
- The applicant should ensure that no unacceptable impact on the quality of both surface and groundwater is associated with the proposed project. If pollution of any surface or groundwater occurs, it must be immediately reported to DWS and appropriate mitigation measures must be implemented.
- Ensure that all specialist studies form part of the EIA and must be submitted to DWS before construction commences.
- All relevant sections and regulation of the National Water Act, 1998 (Act 36 of 1998) regarding water use must be adhered to.
- An EMPr must be compiled and submitted to MMM.
- Should any fuel be stored underground in future, the following should be undertaken:
  - A geohydrological study must be conducted.
  - Stormwater management plan must be compiled.
  - All other relevant authorities must be consulted.
- An ECO must be appointed
- A waste management plan must be compiled and also provide guidance to ensure that domestic, industrial and hazardous wastes are managed at the proposed site in a way that is protective of health, safety and environmental.

- Material Safety Data Sheets shall be available on site for all chemicals and hazardous substances to be used on site. It should additionally include (where available) information on measures to minimize negative environmental impacts during accidental releases or escapes.
- Site and Employees are to be managed in strict accordance with the OHS Act and National building Regulations. A health and safety representative should be appointed if more than 20 employees are employed.
- Facility must register with the local Fire Fighters Organization and periodically conducts drill in conjunction with the local fire fighter's unit.
- Proposed development must comply with other environmental legislation and requirements that are related to issues such as noise and light pollution, air quality, water use and management, solid waste management and storm water management.
- The provincial tertiary road T4730 will be affected by the proposed project
- The Department will formulate comments subsequent to obtaining a site development plan and information on the expected traffic to determine the impact on the provincial road network

APPENDIX G

Report on Alternatives

Preferred alternative

The preferred site is ideally located for the proposed fuel depot as easy access can be obtained from Sand Du Plessis Avenue. The proposed development site is surrounded by housing, agricultural and light industrial land uses.

The applicant is also in process to obtain legal ownership of the proposed development property.

Alternative 2 - locality

As an alternative, the construction of a fuel depot at another site, in an industrial part of Bloemfontein can be considered. However, this option is not economically viable, as the applicant is in process to obtain legal ownership of the preferred site.

No other alternatives will be discussed or considered due to the above mentioned reasons.

No-go alternative

Not constructing a fuel depot. The applicant will then have to buy fuel from other companies (at a higher price) and this will have cost implications.

APPENDIX H

Other

APPENDIX H_1

Property Description

WGM TRUST
Reg nr. TMP 3611

PO Box 13701
Noordstad
Bloemfontein
9302

TO WHOM THIS MAY CONCERN

This writing serves to confirm the selling of the property, Portion1/42, small holding, Estoire, Bloemfontein.
The purchaser is MACK'S PETROLEUM and the purchase agreement is currently in the drafting process with the attorneys of the WGM Trust, namely Gous Vertue & Ass. Inc.

Signed Seller
WG Myers

For WGM Trust

Signed Purchaser
J vd Merwe

For Mack's Petroleum

10 261

SEËLREG
STAMP DUTY R.....
FOOI
FEES R 900-00

Fourie Attorneys
123 Pres.Reitz Avenue
Westdene
Bloemfontein
9301

Prepared by me

CONVEYANCER
ARINA DEBRA MERRY

VERBIND MORTGAGED

VIR
FOR R 1 000 000,00

B 000004779 / 2016
2016 -09- 23

REGISTRATEUR/REGISTRAR

Denise Micro Scanning

VIR ENDOSSEMENTE KYK BLADSY 14
FOR ENDORSEMENTS SEE PAGE.....

T 000007979 / 2014

DEED OF TRANSFER

Nasreen Micro Verify

NASREEN Micro Verify

BE IT HEREBY MADE KNOWN THAT

NASREEN Micro Scanning

ARINA DEBRA MERRY / ~~AMANDA FOURIE~~

appeared before me, REGISTRAR OF DEEDS at Bloemfontein, the said appearer being duly authorised thereto by a Power of Attorney which said Power of Attorney was signed at BLOEMFONTEIN on 27 MAY 2014 granted to him by

THE TRUSTEES OF THE
M & J TRUST
REGISTRATION NUMBER IT730/2010

PULANE DATA NASIEN

Vee Micro Scanning

2014 -07- 28

28 JUL 2014

GhostConvey 14.12.2.1

And the appearer declared that the abovementioned Transferor purchased on 16 November 2012 from the hereinafter mentioned Transferee certain REMAINING EXTENT OF PLOT 42 ESTOIRE SETTLEMENT DISTRICT BLOEMFONTEIN PROVINCE FREE STATE, but had erroneously received Transfer of the hereinafter mentioned property, and whereas the TRANSFEROR and TRANSFEREE agreed on 27 May 2014, per rectification agreement, that the error be rectified, now they therefore cede and transfer, the state however reserving the rights, to and on behalf of:

THE TRUSTEES OF THE
WGM TRUST
REGISTRATION NUMBER TMP3611

its Successors in Office or assigns, in full and free property

PORTION 1 OF PLOT 42 ESTOIRE SETTLEMENT DISTRICT BLOEMFONTEIN PROVINCE FREE STATE

IN EXTENT 2,1411 (TWO COMMA ONE FOUR ONE ONE) hectares

FIRST registered by Certificate of Registered Title T1694/2012 with Diagram LG No 111/2011 relating thereto and held by Deed of Transfer T5019/2013

ONDERWORPE aan 'n voorwaarde soos geskep in Sertifikaat van Geregistreerde Deeltitel T1694/2012:

ONDERHEWIG aan 'n serwituut van reg van weg, 15,74 (vyftien komma sewe vier) meter wyd, langs sy BC soos aangetoon op die onderverdelingskaart LG No. 111/2011 hierby aangeheg ten gunste van die algemene publiek.

WHEREFORE the said Appearer, renouncing all right and title which the said

THE TRUSTEES OF THE
M & J TRUST
REGISTRATION NUMBER IT730/2010

heretofore had to the premises, did in consequence also acknowledge them to be entirely dispossessed of, and disentitled to the same, and that by virtue of these presents, the said

THE TRUSTEES OF THE
WGM TRUST
REGISTRATION NUMBER TMP3611

its Successors in Office or assigns, now is and henceforth shall be entitled thereto, conformably to local custom, the State, however reserving its rights, and finally acknowledging the value of the property is the sum of R1 750 000,00 (ONE MILLION SEVEN HUNDRED AND FIFTY THOUSAND RAND).

IN WITNESS WHEREOF, I the said Registrar, together with the Appearer, have subscribed to these presents, and have caused the Seal of Office to be affixed thereto.

THUS DONE and EXECUTED at the Office of the REGISTRAR OF DEEDS at Bloemfontein on

2014 -07- 25.

q.q.

In my presence

REGISTRAR OF DEEDS

BLADSY/PAGE 4

AKTE No./DEED No. T7979 | 2014

VERBIND MORTGAGED

VIR FOR R 1 000 000,00

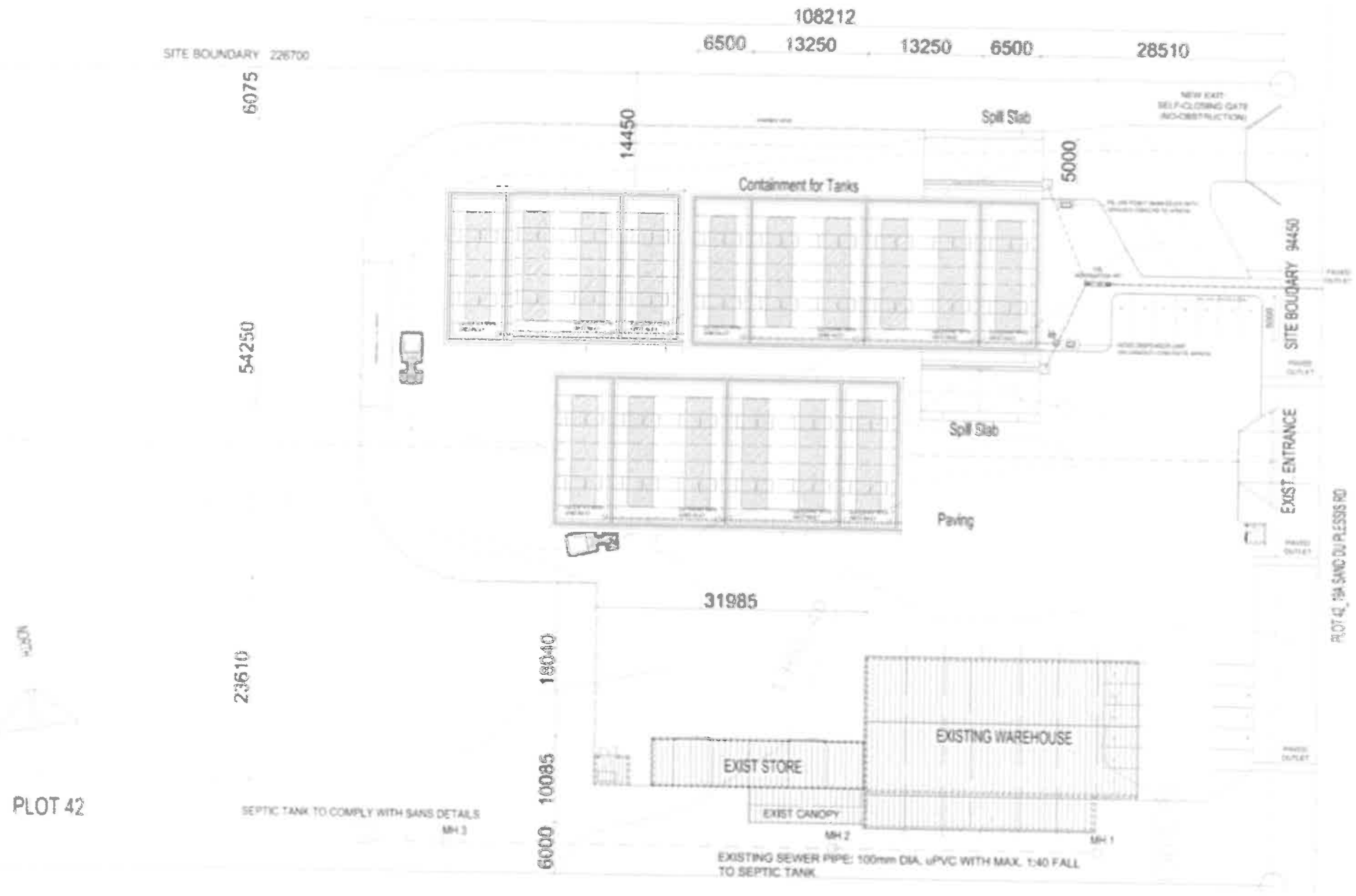
B 000004201 / 2017

2017 -09- 04

REGISTRATEUR/REGISTRAR

APPENDIX H_2

Facility Illustration


REMAINDER OF PLOT 42
108212
SITE BOUNDARY 226700
6500
13250
13250
6500
28510
6075
14450
Spill Slab
5000
NEW EXIT
SELF-CLOSING GATE
NO OBSTRUCTION
Containment for Tanks
54250
SITE BOUNDARY 94450
Spill Slab
EXIST ENTRANCE
Paving
31985
23610
19040
EXISTING WAREHOUSE
EXIST STORE
EXIST CANOPY
10085
6000
MH 2
MH 1
PLOT 42
SEPTIC TANK TO COMPLY WITH SANS DETAILS
MH 3
EXISTING SEWER PIPE: 100mm DIA. uPVC WITH MAX. 1:40 FALL
TO SEPTIC TANK
PLOT 42, 194, SANDDU PLESSIS RD

APPENDIX H_3

Project Motivation

An existing diesel tank is operational on site. This tank has a storage capacity of 79 000ℓ and is utilized by the applicant only.

The existing infrastructure on site also includes the following:

- Bunded walls at the hazardous material storage tank in order to limit the possible pollution of soil / groundwater
- Entrance and access road
- Internal road network
- Parking bay
- Fencing
- Offices
- Ablution facility
- French drain system
- Oil separator pit at the septic tank
- Water supply
- Electricity supply
- Additional tank was erected. However, this tank is not coupled to any pipe network and is not operational at present. A bunded wall was constructed at the additional tank.

The proposed expansion of the diesel depot will comprise of the following:

- Operational of second tank (currently erected, but not coupled to any pipe network)
- Erection of additional diesel tanks (above-ground; should underground tanks be considered in future, a geohydrological study should be undertaken)
- Sufficient parking area for heavy vehicles
- Construction of additional tanks for the storage of hazardous material as well as their associated bunded walls (the additional tanks and bund walls will probably be constructed within the following five years)
- Additional parking (when / if required)
- Additional internal roads (when / if required)
- Site exit (probably within the following five years)

The proposed location is ideal as the applicant is in process to obtain ownership of the property. The site is also located on the outskirts of Bloemfontein, making access to the site more accessible for larger trucks.

The proposed development will create seasonal jobs during the construction phase (due to the construction activities associated with the project). In addition, employment opportunities will be created during the operational

phase, which will enhance the livelihoods of previously disadvantaged individuals.

The proposed development is not surrounded by similar (diesel depot – to be used by the applicant's own fleet of trucks) developments. However, the proposed project is compatible with the surrounding area, as the surrounding properties are used for housing, agricultural and light industrial land uses. This makes the proposed development suitable to the area.

The existing land use rights constitute agricultural activities. However, the property will be rezoned accordingly to accommodate the said development. A suitably qualified Regional and Town Planner was appointed to conduct the rezoning application. The application will be submitted after an Environmental Authorisation (EA) is issued (if approved), as per the Municipal by-laws.

The proposed development is in line with the Free State Provincial Spatial Development Frame work (PSDF), regarding:

- Enhancing economic growth
- Improving quality of life

The development will create employment opportunities during the construction and operational phase, thus improving the quality of life of individuals and lead to economic growth.

The proposed development will not have a significant impact on the health of community members in the surrounding area, should the mitigation measures as mentioned in the EMPr be implemented (including, but not limited to noise, odour, air and water pollution mitigation measures).

APPENDIX H4

Specialist Reports

Traffic Impact Assessment
Heritage Sensitivity
Civil Services, Water & Sewer
Electrical Report

Exemption from Phase 1 Heritage Impact Assessment: Proposed new aboveground Diesel Depot on Plot 1/42 Estoire, Bloemfontein Free State Province.

Report prepared by
Paleo Field Services, PO Box 38806, Langenhovenpark, 9330

Site: Plot 1/42 Estoire, Bloemfontein

District: Bloemfontein

Map Ref.: 2926AB Maselspoort

Proposed development calls for an aboveground diesel depot on Plot 1/42, Estoire in Bloemfontein (**Fig. 1 & 2; Table 1**).

The site is located in Sand du Plessis Avenue (**Fig. 3**). The Estoire residential smallholdings have been established more than sixty years ago, but many of the original residential structures have been replaced by commercial and industrial properties (**Fig. 4**). The affected area is covers 2ha of degraded land, containing several modern commercial building structures (**Fig. 5**). No historically significant building structure older than 60 years of age is present at the site. Existing roads already provide access to the site.

The proposed development will take place on land formerly altered by modern industrial / commercial activities. Potential archaeological impact at each of the proposed site is considered to be non-existent.

Underlying geology at the site consists of potentially fossil-bearing Karoo Supergroup strata (Beaufort Group, Adelaide Subgroup, *K3l*) (**Fig. 6**). Superficial sediments are made up of residual soils of varying depth that are not considered to be palaeontologically significant in this case. The likelihood of palaeontological impact on bedrock sediments underneath the degraded overburden is considered to be extremely low given latter's overall depth, the low topography terrain and the fact that no subsurface development is planned for this project.

It is recommended that the proposed development is exempt from a Phase 1 Heritage Impact Assessment.

References

Johnson *et al.* 2006. Sedimentary rocks of the Karoo Supergroup. In: M.R. Johnson, *et al.* (eds). The Geology of South Africa. Geological Society of South Africa, pp. 461 – 499.

Table 1. Site coordinates.

	Coordinates	
A	29° 6'40.13"S	26°16'7.53"E
B	29° 6'38.50"S	26°16'15.62"E
C	29° 6'41.49"S	26°16'16.45"E
D	29° 6'43.18"S	26°16'8.34"E

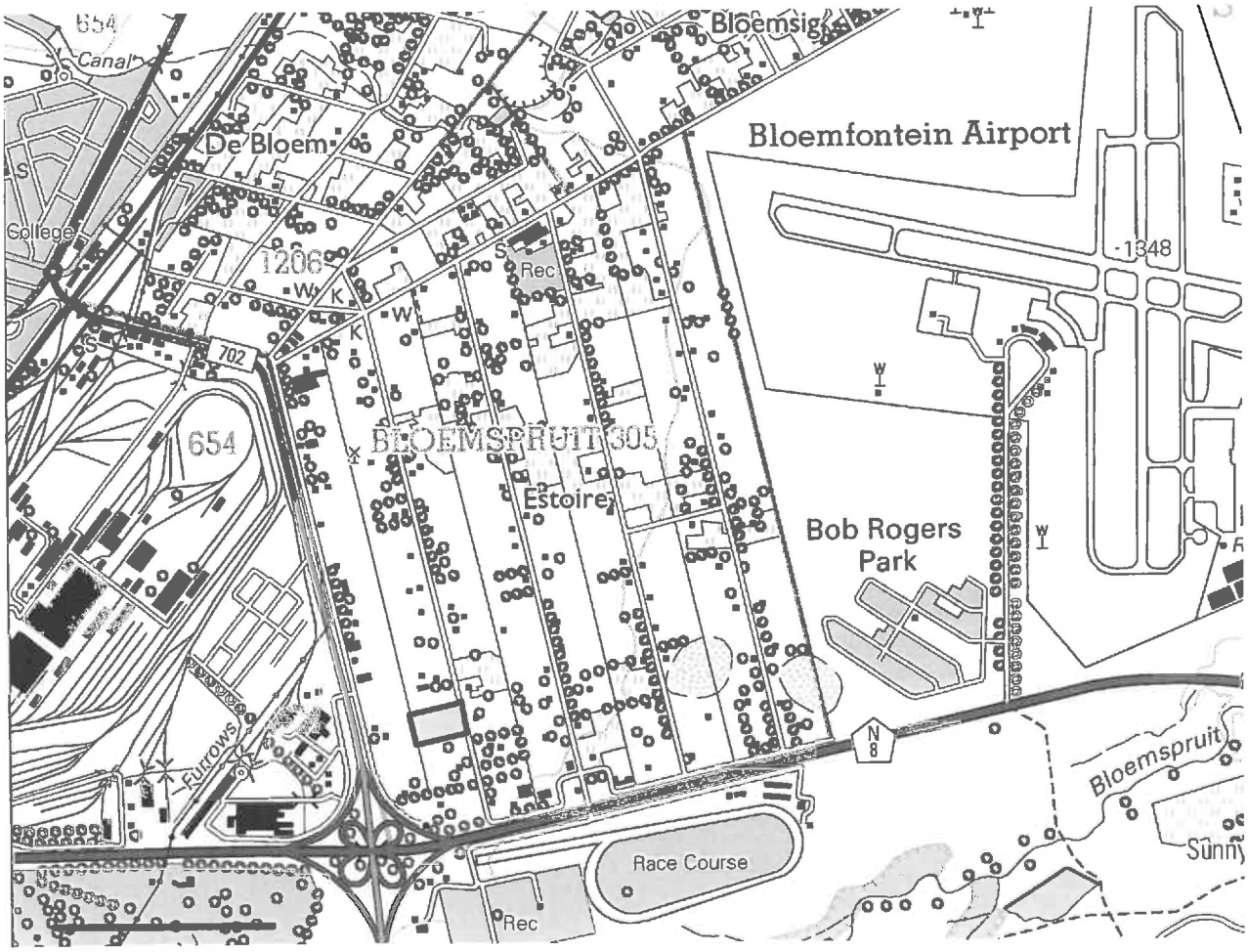


Figure 1. Map of the study area (yellow rectangle) marked on portion of 1:50 000 scale topographic map 2926AB Maselspoort).

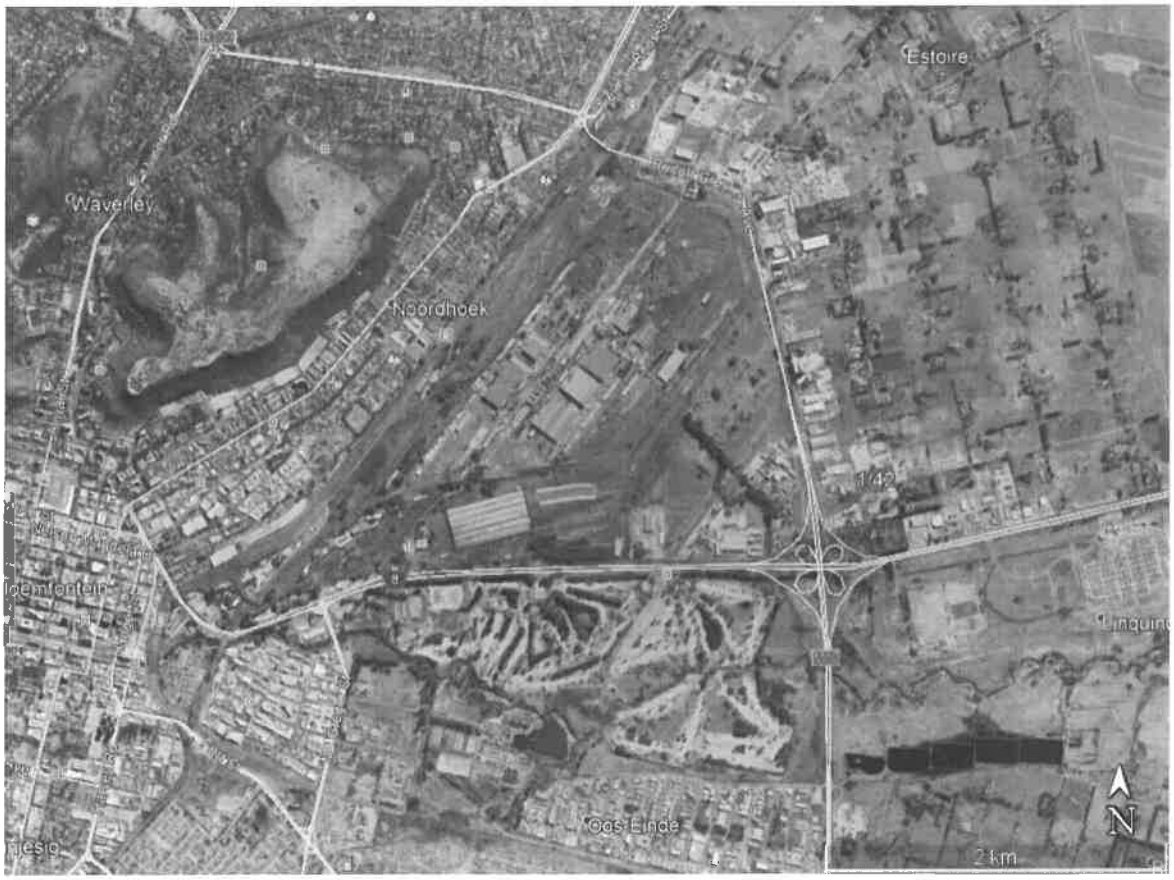


Figure 2. Aerial view of the locality.

Figure 3. Aerial view and layout of the study area.

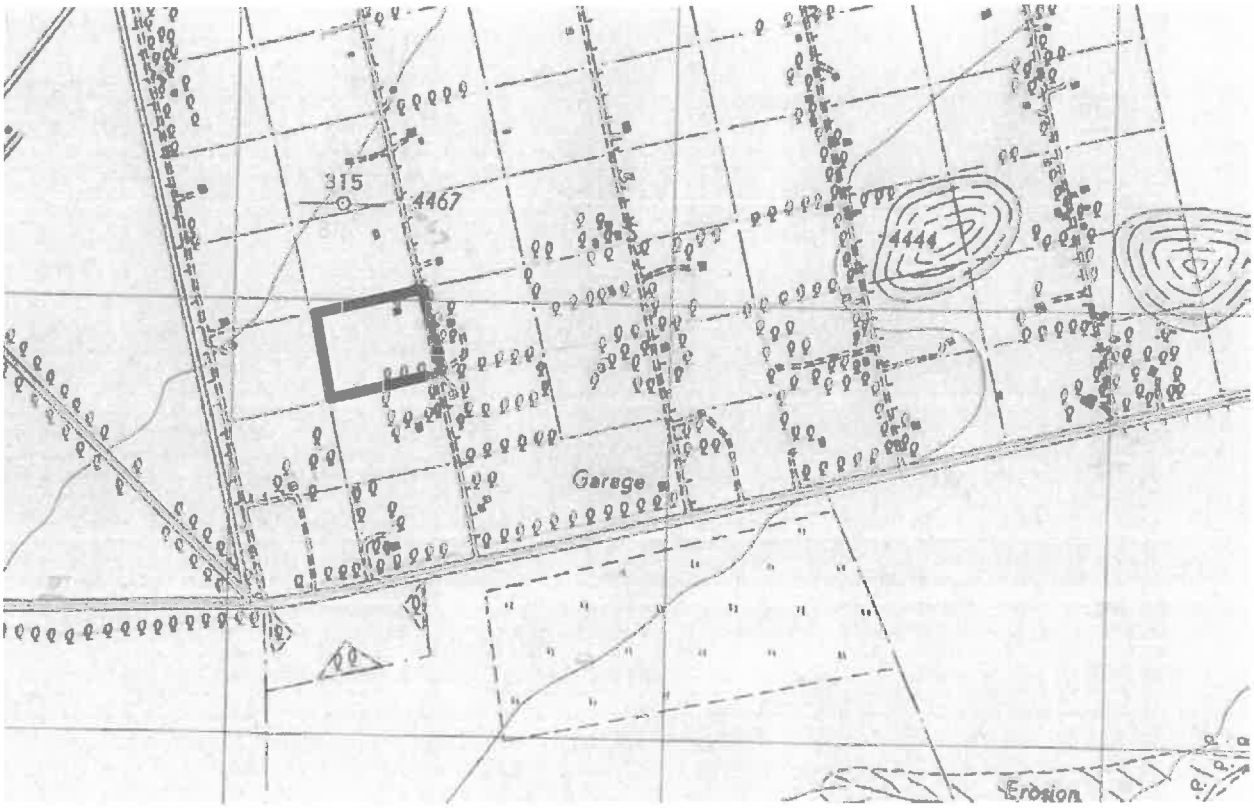


Figure 4. Historical map showing study area marked on portion of 1:18 000 scale topographic map ca. 1941.

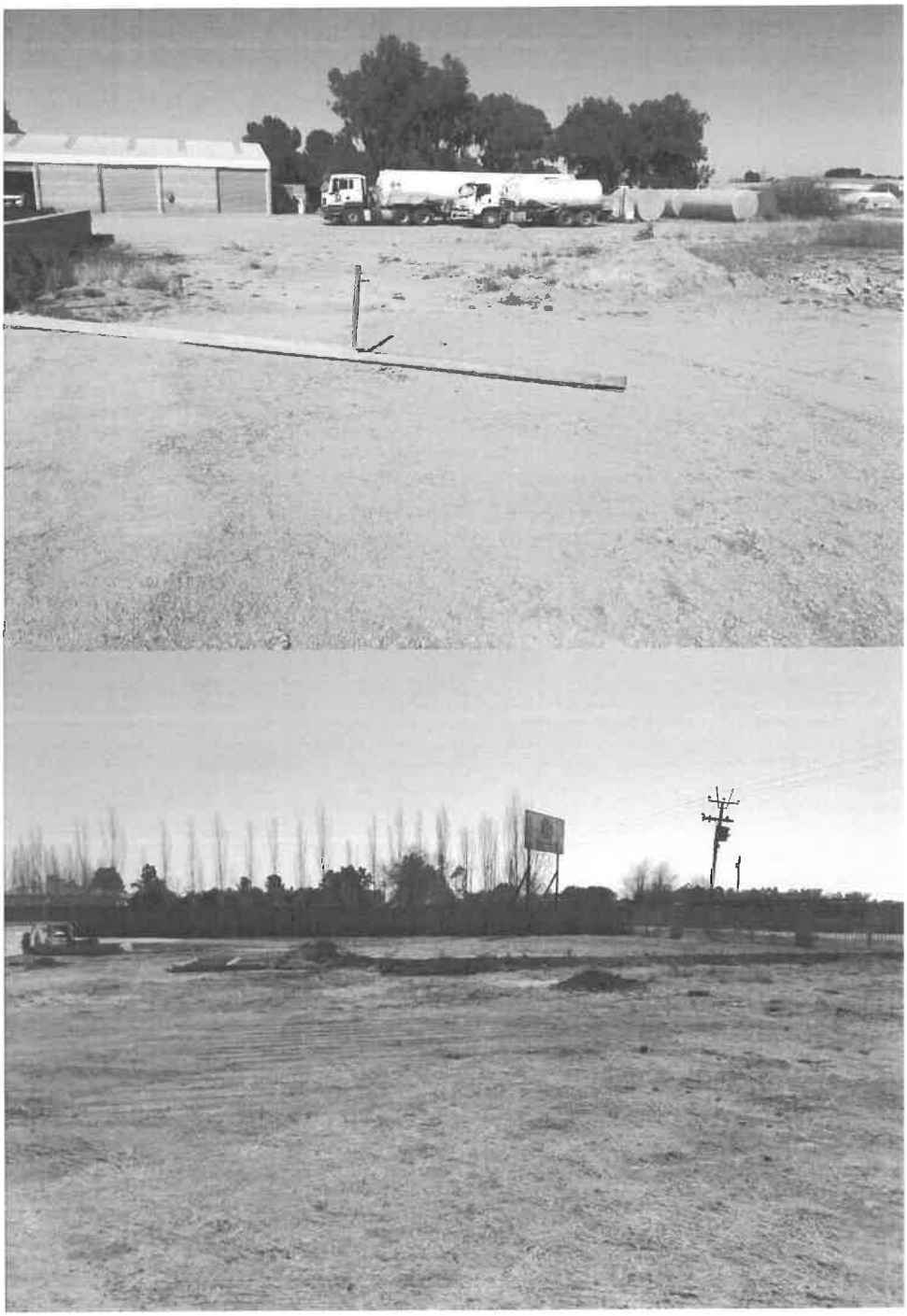
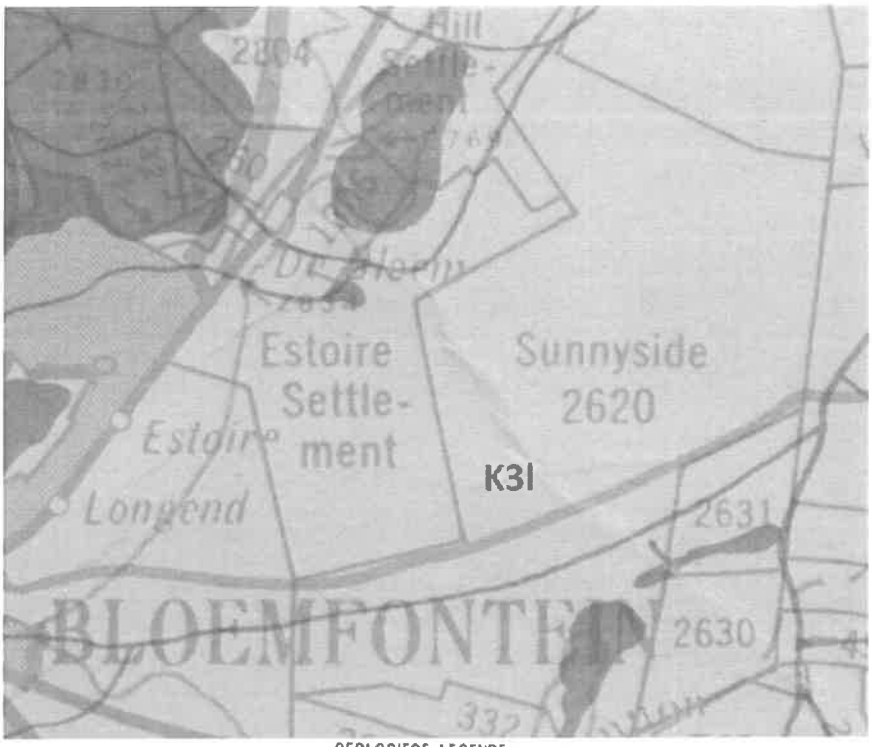


Figure 5. General view of the site.



GEOLOGIESE LEGENDE

Qc	Surface-limestone Oppervlakkalksteen		Recent Resent	
Kb	Kimberlite dyke Kimberlietgang		Cretaceous? Krvt?	
	Diatreme Diatrema		Post-Karroo Na-Karoo	
	Volcanic neck Vulkaniese pyp			
	Dolerite, overprinted on geological formations Doleriet, oorgedruk op geologiese formasies			
K4d	Basaltic lava Basaltiese lawa	Drakensberg Stage Etage Drakensberg	Stormberg Series Serie Stormberg	KARROO SYSTEM SISTEEM KAROO
K4c	Massive sandstone, thin shale Massiewe sandsteen, dun skalie	Cave Sandstone Stage Etage Holkransandsteen		
K4r	Purple shale and mudstone; thin sandstone Pers skalie en moddersteen; dun sandsteen	Red Beds Stage Etage Rooilae		
K4m	Feldspathic sandstone and grit, green shale Veldspatiese sand- en grintsteen, groen skalie	Molteno Stage Etage Molteno		
K3u	Purple and green shale, thick sandstone beds Pers en groen skalie, dik sandsteenlae	Upper Stage Boonste Etage	Beaufort Series Serie Beaufort	
K3m	Sandstone, shale and mudstone Sandsteen, skalie en moddersteen	Middle Stage Middelste Etage		
K3l	Sandstone, shale and mudstone Sandsteen, skalie en moddersteen	Lower Stage Onderste Etage		
K2u	Mudstone, shale Moddersteen, skalie	Upper Stage Boonste Etage	Ecca Series Serie Ecca	

Figure 6. Underlying geology at the site consist of potentially fossil-bearing Beaufort Group (Adelaide Subgroup) strata (*K3l*)

PLOT 1/42 ESTOIRE SMALLHOLDINGS, BLOEMFONTEIN

REZONING

TRAFFIC IMPACT ASSESSMENT

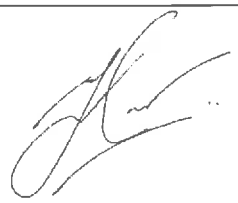
MAY 2019

KMA
CONSULTING ENGINEERS

Project: 7317

PO Box 25054, Langenhoven Park, 9330, 12 AG Visser Street, Langenhoven Park, Bloemfontein
Tel & Fax: 051 446 2647, Cell: 083 381 5884, E-mail: kma@telkomsa.net

REPORT SHEET

Property Description:	*Plot 1/42 Estoire Small Holdings, Bloemfontein*
Municipal Area:	*Mangaung Metro Municipality*
Application:	*Rezoning*
Type of Report:	*Traffic Impact Assessment*
Project Number:	*7317*
Compiled by:	*Koot Marais Pr Eng*
Declaration	*I, Koot Marais, author of this traffic impact study, hereby certify that I am a professional traffic engineer (registration No 920023) and that I have the required experience and training in the field of traffic and transportation engineering as required by the Engineering Council of South Africa (ECSA), to compile this traffic impact study and I take full responsibility for the content, including all calculations, conclusions and recommendations made herein.*
Signed:	 *920023*
Date:	*May 2019*

Prepared by:

KMA
CONSULTING ENGINEERS

PO Box 25054, Langenhoven Park, 9330, 12 AG Visser Street, Langenhoven Park, Bloemfontein
Tel & Fax: 051 446 2647, Cell: 083 381 5884, E-mail: kma@telkomsa.net

TABLE OF CONTENTS

1 INTRODUCTION

1.1 Aim of the Study

The aim of this study was to determine and report on the traffic impact of a planned **Rezoning of Plot 1/42 Estoire Small Holdings, Bloemfontein to establish a Diesel Depot.**

1.2 Background

It is the intention to rezone the property to a Special Use to make provision for a diesel depot and this document reports on the traffic implications of the application.

Plot 42 was rezoned from Holdings to Special Business 2 and subdivided. A Traffic Impact Study in support of this application was undertaken in 2007. One of the conditions of approval (Reference Plot 42 Estoire (178463) dated 19 March 2008) was that the development should be restricted in the title deed to a maximum size of 18000m² GLA, and that business buildings (which would have allowed the development of shops) and nurseries will be excluded from the allowed land uses. Based on the current title deed and zoning certificate, this was however not done. This has a bearing on this study and is further dealt in the report.

The developer is as follows: Mack's Petrolium (Pty) Ltd
PO Box 338
Vryburg

1.3 Site Location

The site is situated to the west of Sand du Plessis Avenue in Estoire.

Figure 1.1: Locality Plan

1.4 Development

Detail regarding the zoning is as follows:

- Some of the infrastructure is already developed on the property and is in line with the current zoning namely "Special Business Type 2". See Appendix A for the permissible uses in terms the existing "Special Business Type 2" zoning. The proposed Special Use zoning will allow for the existing permissible uses as well as the proposed diesel depot.

- A Special Use zoning will be used that define the diesel depot and also allow for the following uses:

    - Diesel Depot,
    - Workshop;
    - Overnight facilities (5 persons);
    - Guard house;

- The diesel depot will only serve the developers own fleet of trucks. The site licence from the Department of Mineral Resources will only allow for wholesale and no retail. (Given the relatively inaccessible location of the development it is in any event highly unlikely to attract other trips)

From a practical point of view the Special Business 2 according to the Bloemspruit Town Planning Scheme will be retained with the addition of the diesel depot and 5 residential units. (Overnight facilities for 5 people will not necessarily imply 5 residential units but as a worst case, this is assumed). See Section 1.2 Background as well as Chapter 3.

The planned diesel depot development is shown in the concept layout in Chapter 5.

1.5 Scope of Analysis

The change in land use is not expected to generate sufficient trips to warrant a formal Traffic Impact Statement (see Chapters 3 and 4), with the result that a formal Traffic Impact Statement with capacity analyses was not undertaken. Basic information regarding the possible impact is however provided in this report as the National Land Transport Act (Act 5 of 2009), prescribes that authorities should have sufficient information for the authority to assess and determine the impact of an application for a change in land use.

2 BACKGROUND INFORMATION

2.1 Existing Road Network

The most important roads in the area are the following:

Street / Road	Road No	Route No	Description	Geometry	Classification	Functional Classification	Jurisdiction
Thaba Nchu Road	A238	N8	This road links Bloemfontein with the Thaba Nchu – Botshabelo area.	Four-lane divided roral road in the area. The road does not allow direct access in the area, but does provide access in the area to the east where the road becomes a two lane road with passing lanes	Arterial	Arterial	Free State Province (previously SANRAL). Further to the east the road falls under SANRAL
Kruger Avenue	T4731 (southern portion)		Serves properties and smallholdings and links with the P5/1.	Two-lane rural road providing direct access to properties. Relatively narrow	Collector	Collector	Free State Province / Mangaung Metro Municipality
Tibbie Visser Street			Provides access for the Estoire area from Rudolph Greyling Avenue	Two-lane rural road providing direct access to properties. Relatively narrow.	Collector	Collector	Mangaung Metro Municipality
Service Road	T4730		This road serves as a service road to the A238 and serves properties	Rural gravel road providing access to properties	Local Street	Commercial Local Street	Free State Province
Rudolf Greyling Avenue	P6/1	M10	This road is part of the inner Ring Road and links the N8 with the R30	Two-lane urban road without paved shoulders. Becoming a four-lane divided rural road near N8. The road does not provided direct access to properties	Arterial	Arterial	Mangaung Metro Municipality / Free State Province
Sand du Plessis Avenue			Links Tibbie Visser Street with the T4370.	Two-lane rural road providing direct access to properties.	Local Street	Commercial Local Street	Mangaung Metro Municipality

Unless otherwise clarified,
A rural geometry implies a road without kerbs and raised sidewalks
An urban geometry implies a road with kerbs and raised sidewalks

2.2 Existing Land Use

The site is already partly used as per the current zoning and is surrounded by small holdings and industrial- type developments on some of the properties. Numerous sites in the area are currently under application.

2.3 Road Planning

In anticipation of the expected development in the Estoire area, the Transport Planning Division has compiled a road master plan for the area. It must however be taken into consideration that this plan has no official status and is only an envisaged/concept layout still to be approved by the relevant authorities. The intention of the plan is more to guide possible future development in the area by ensuring that specific road reserves are retained, or established, as it is expected that the roads will be developed as part of possible future township establishments.

The concept master plan is shown below.

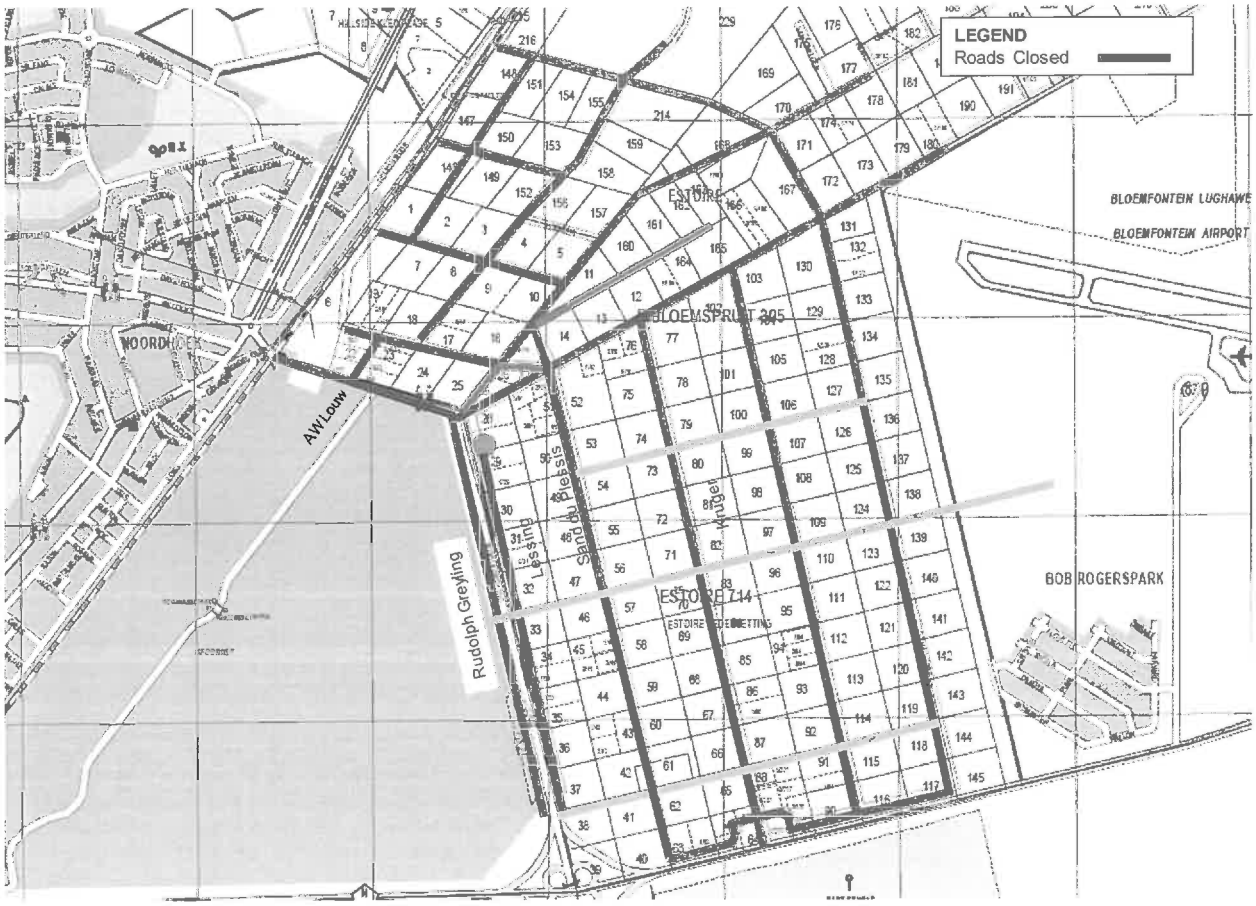


Figure 2.1 Possible Future Road Network

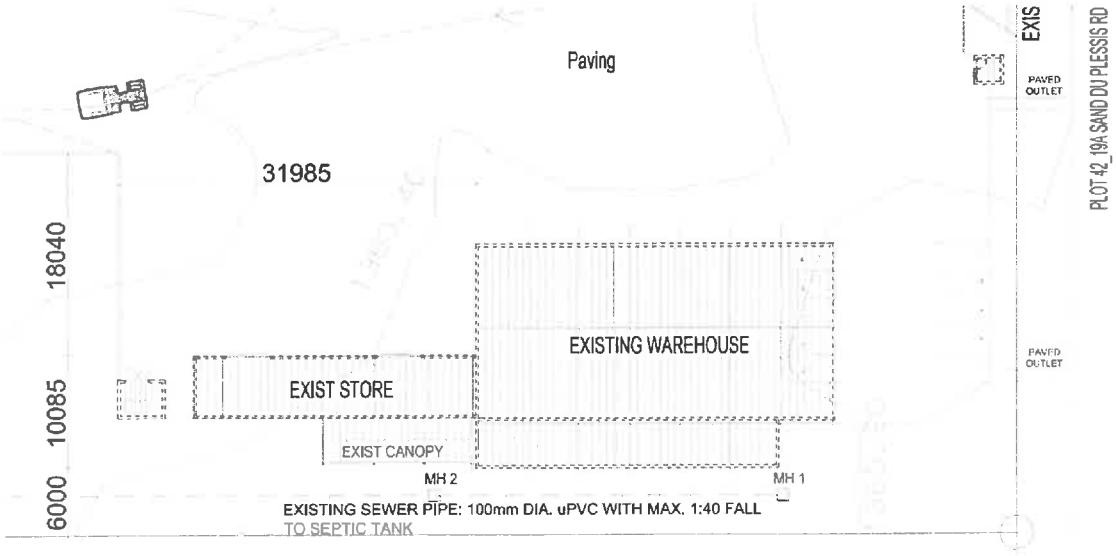
As can be seen in the above figure, it is the intention to establish a road on the southern boundary of the property and also to widen Sand du Plessis Avenue. As a result, the following conditions were set in the mentioned approval of the rezoning of Plot 42:

- An 8m wide road reserve should be established along the eastern boundary of the site, and
- A 9.5m wide road reserve should be established along the southern boundary of the site.

A subdivision diagram showing these reserves was submitted, but based on the available information these reserves were not registered. As can be seen in the figure below, although the roads have not yet been established, the reserves were created over Plots 43 and 67, but not over Plot 42.

Figure 2.2 Status of Road Reserves Possible Future Road Network

As can be seen in the concept site layout plan, of which an excerpt is shown below, (recently constructed) buildings are located at a distance of approximately 14m from the eastern boundary and 6m from the southern boundary.



It would thus still theoretically be possible to establish the reserve along the eastern boundary although this will affect parking and throat lengths, but it would not be possible to establish the reserve along the southern boundary due to the location of the building.

This is an important aspect and a decision should be taken on how the future network can still be accommodated and whether some aspects can be addressed during this application process.

Consideration can be given to change the road network as follows, namely that the new east west road terminates in Sand du Plessis Avenue and does not link with Lessing Avenue. It is however important that provision is still made for the widening of Sand du Plessis Avenue.

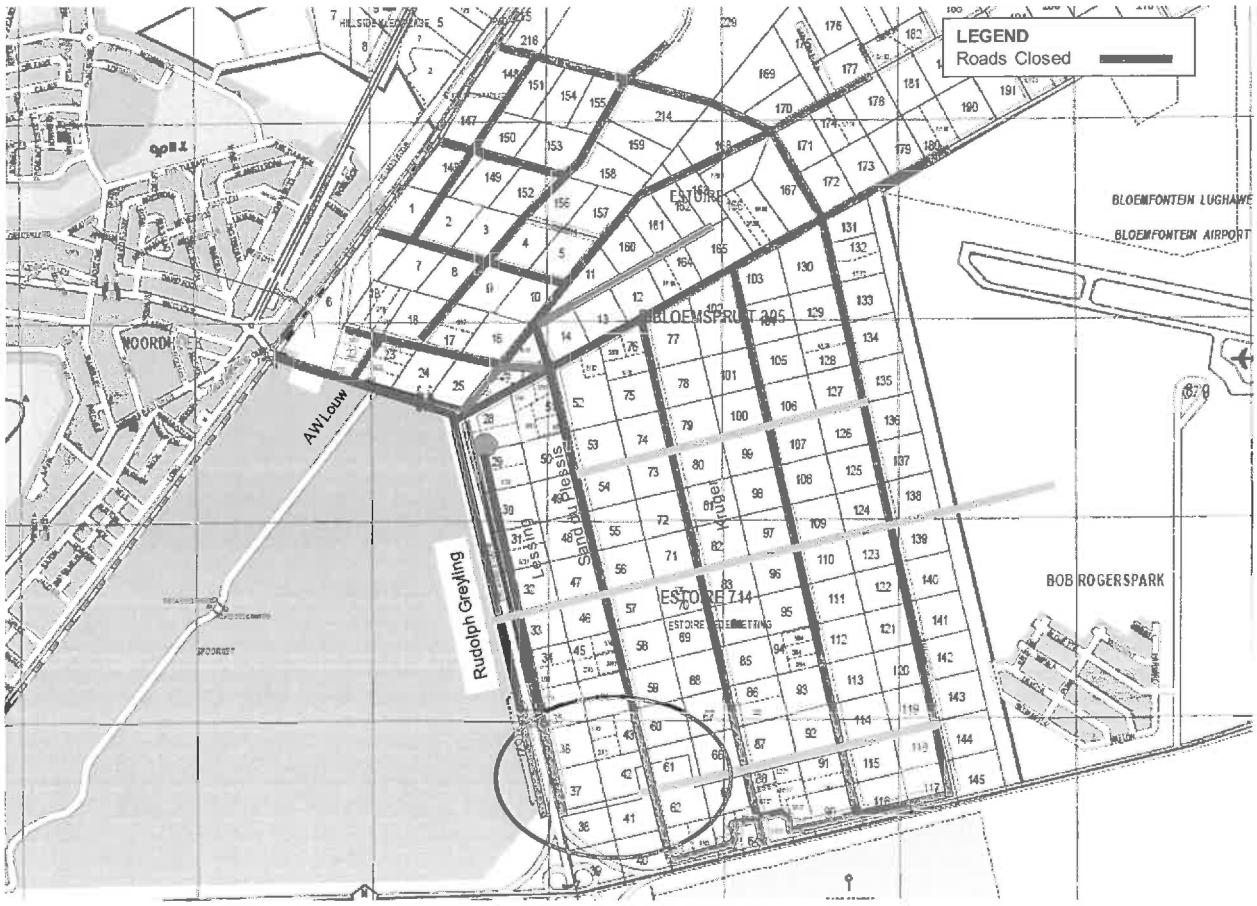


Figure 2.3 Possible Changes to Future Road Network

3 TRIP GENERATION

To determine the actual impact of the change in land use, the potential of the current zoning should be considered.

The site is zoned Special Business 2 with the uses as set out in Appendix A. With the zoning allowing Business Buildings, which allows shops, any other use such as the diesel depot and the overnight facilities will result in a reduction in the development potential, and thus a reduction in the potential trip generation.

Due to the following, the expected trip generation of the applied for facilities will be limited:
:

- The diesel depot will only serve the developers own fleet of trucks;
- The site licence from the Department of Mineral Resources will only allow for wholesale fuel sales and no retail; and
- The site is relatively inaccessible from higher order roads.
- The overnight facilities will be used by employees

Considering the above, the change in land use will reduce the potential trip generation of the development and is not expected to generate in excess of 50 peak hour trips, with a result that capacity analyses are not required.

Due to the new application and the fact that the full potential according to the zoning is not practical achievable, it might be possible to address the development potential as discussed in Section 1.2. The current planned Special Use zoning however does not include such restrictions.

4 TRAFFIC IMPACT

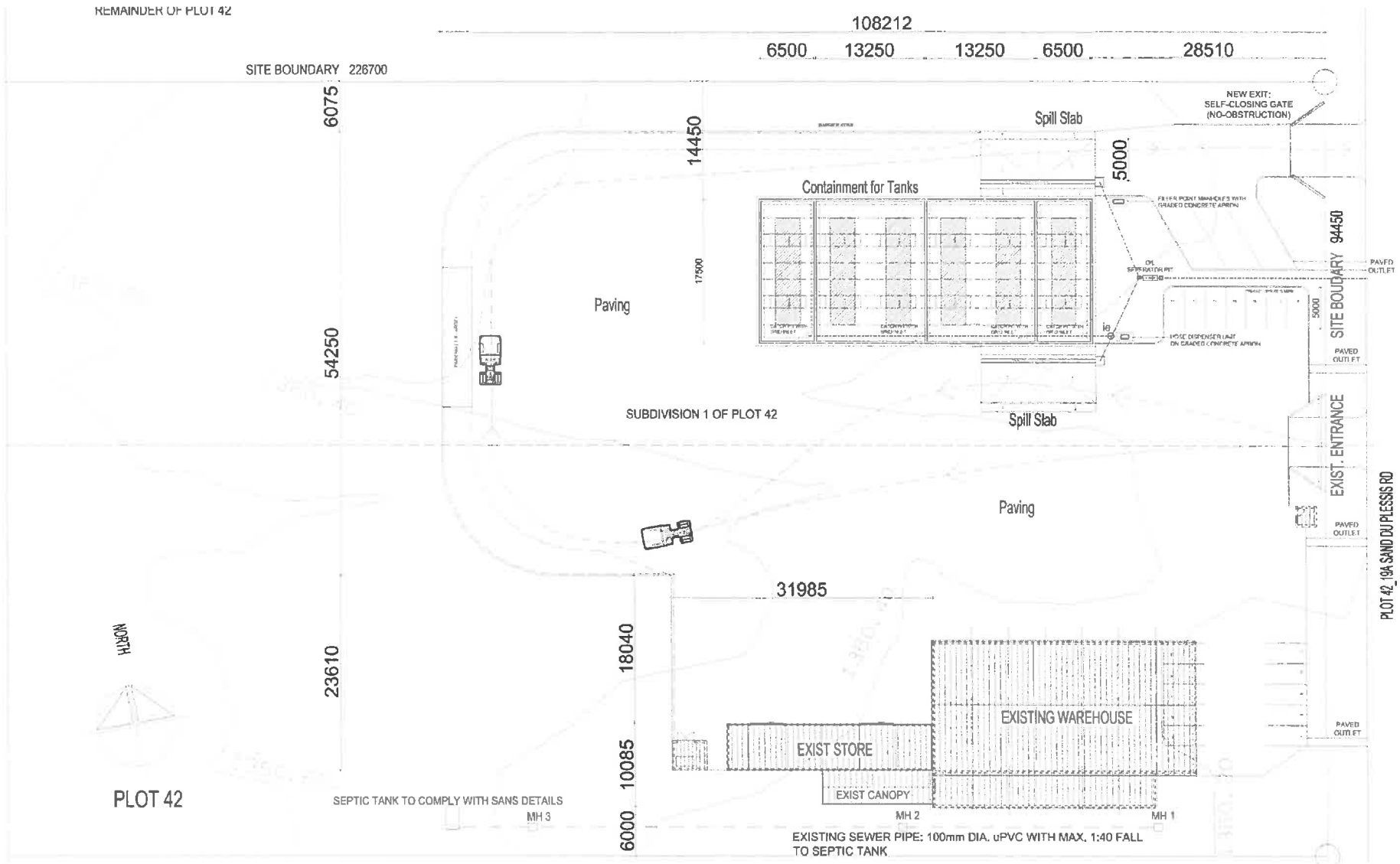
4.1 Need for Formal Analysis

As shown in Chapter 3 the change in land use is not expected to generate in excess of 50 peak hour trips during any peak period and in fact trip generation will be quite low. A formal Traffic Impact Statement with Capacity Analyses is thus not warranted.

4.2 General Impact

Considering the expected trip generation of the development, rezoning of the property as per the zoning application will not have a notable impact on traffic volumes in the area.

5 SITE DEVELOPMENT PLAN



As the application is for rezoning, the site development plan does not yet have any formal status but as it seems to be relatively planned in detail, it needs to be considered. The plan will however be formally considered as part of building plans.

No	Basic Aspects
1	**Access**
	Discussion:
a	**Number of Accesses**
	The layout makes provision for two accesses consisting of an entrance and a separate exit. This is contrary to what is prescribed by TRH 26, namely: *Normally only one access per erf is allowed. However, developments such as shopping centres should preferably have separate accesses for private vehicles and for large delivery vehicles. A separate access may also be desirable for use by public transport.* *The spacing and separation requirements of this manual, however, are applicable to each individual access and may not be relaxed to accommodate the additional accesses.* In an industrial area with access from a lower classification road, two accesses can possibly be considered, although considering the available space there is no obvious reason why two accesses should be provided.
b	**Proposed Location of Access & Spacing**
	Given the fact that provision is made for a separate entrance and exit, and considering the zoning of the site, the entrance and exit will be high volume accesses and will thus as per TRH 26 have to comply with the appropriate access spacing. The access spacing as per the plan is approximately 35m centreline to centreline. If assumed as low volume truck accesses as per UTG10 for a commercial local street, the access separation should be 20m, but considering the zoning of the site, the entrance and exit could be high volume motor car and mixed driveways. In the latter case the access spacing should be 50m centreline to centreline based on UTG10. Considering the above, it is thus recommended that only one access be provided, but if there are sufficient motivation why a separate entrance and exit should be provided, these will have to be spaced at 50m centreline to centreline.
c	**Provision of Deceleration Lanes and Median Openings**
	Not required considering the nature of the street.
d	**Sight Distances**
	Sight distances should be acceptable
e	**Impact on Street Parking Etc.**
	Not relevant
2	**Parking**
	Discussion:
	Sufficient space should be available on the site to provide the required parking; this can be addressed as part of building plans.
3	**Delivery Facilities**
	Discussion:
	This aspect can be addressed as part of the building plans.
4	**Legal Aspects**
	Discussion:
	See Section 2.3

6 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions can be made from the study:

a) The original rezoning conditions of Plot 42 were not implemented and the site has significant development potential. The planned rezoning will reduce the development potential and is not expected to generate in excess of 50 peak hour trips.

b) As part of the original rezoning and subdivision of Plot 42, certain road reserves should have been registered on the property. These were not registered and due to construction of buildings, the originally planned road network in the area is no longer possible. As a result, the future road network alignments will have to be reviewed.

c) An acceptable site layout is possible, although the position of accesses as indicated in the concept layout plan will have to be reconsidered.

Considering the findings and recommendations of the study, it is recommended that the development be approved from a traffic point of view.

7 REFERENCES

1. **Manual for Traffic Impact Studies,** Department of Transport, Pretoria, 1995
2. **South African Trip Generation Rates,** Department of Transport, Pretoria, 1995
3. **ITE Trip Generation Rates, 6th Edition,** Institute of Transportation Engineers, Washington, 1998
4. **Transportation and Land Development,** Institute of Transportation Engineers, Washington, 1988
5. **UTG 1, Guidelines for the Geometric Design of Urban Arterial Roads,** CSIR, Pretoria, 1986
6. **National Guidelines for Road Management in South Africa**, COTO
7. **Spacing of Accesses on Major Arterials,** Department of Transport, Pretoria, 1993
8. **TMH 17 Volume 1,** The South African National Roads Agency Limited, Pretoria, 2012
9. **UTG 5: Geometric Design of Urban Collector Roads,** CUTA, Pretoria, 1988
10. **UTG 7: Geometric Design of Urban Local Residential Streets**, CUTA, Pretoria, 1986

SCHEDULE 3

Special Business buildings

TYPE 1

Local business complex with a maximum total floor area of $500m^2$.

TYPE 2

Business building

Display and sales facilities for large vehicles, farming implements and other vehicles including, combine harvester, tractors and caravans. (If any reparation is to be done it must be done in buildings approved by the Local Board).

Seed, vegetables or fruit packing in approved buildings.

Warehouses and display rooms for uses approved by the Local Board within appropriate buildings (with the exception of warehouses for obnoxious or unacceptable industries).

Driving school

Nurseries

Animal hospitals

Transport undertakings (including repairs and maintenance of own vehicles)

Service industries as proclaimed.

Building contractors (including storage of building materials)
Caravanparks
Cement products

TYPE 3

Drill contractors (including repairs to own vehicles and machinery)

Kennels

Auction pens

Storage of raw materials for and products of monumental masons

Storage of coal

Service industries as proclaimed.

Table E

Coverage permitted

Manufactured houses	30 %
Dwelling houses	50 %
Blocks of flats and intermediate residential buildings	33,33 %
Nursery Schools	40 %
Business buildings	80 % except in the case of blocks of flats where it shall be 33,33 %.
Industrial buildings, light industrial buildings and special business buildings	80 %

FCE CONSULTING ENGINEERS
T +27 51 403 8596 | F +27 51 430 1776
www.fceconsultingengineers.co.za
39 Brebner Street | Westdene 9301

DATE: 17/04/2019

CENTLEC
DESIGN & DEVELOPMENT DEPARTMENT
PRIVATE BAG X14
BRANDHOF
9324

ATTENTION: THE GENERAL MANAGER - PLANNING

AVAILABILITY OF ELECTRICAL CAPACITY FOR PROPOSED DEVELOPMENT

We hereby require CENTLEC to confirm if capacity is available for this proposed development.

1. PROJECT REFERENCE NUMBER:	EE1175 - 168
2. LOCATION OF THE SITE:	PLOT 1/42 ESTOIRE
3. STREET NAME:	SAND DU PLESSIS AVENUE
4. CURRENT ZONING OF SITE:	SPECIAL BUSINESS TYPE 2
5. PROPOSED ZONING OF SITE:	SPECIAL USE (DIESEL DEPOT)
6. NUMBER OF STANDS:	1
7. ADMD CONNECTION PER STAND:	N/A
8. CONNECTION REQUIRED:	150KVA LV CONNECTION
9. TYPE OF CONNECTION:	LV CONNECTION
10. INFORMATION REQUIRED BY WHEN:	26/04/2019

REQUEST FOR INFORMATION:

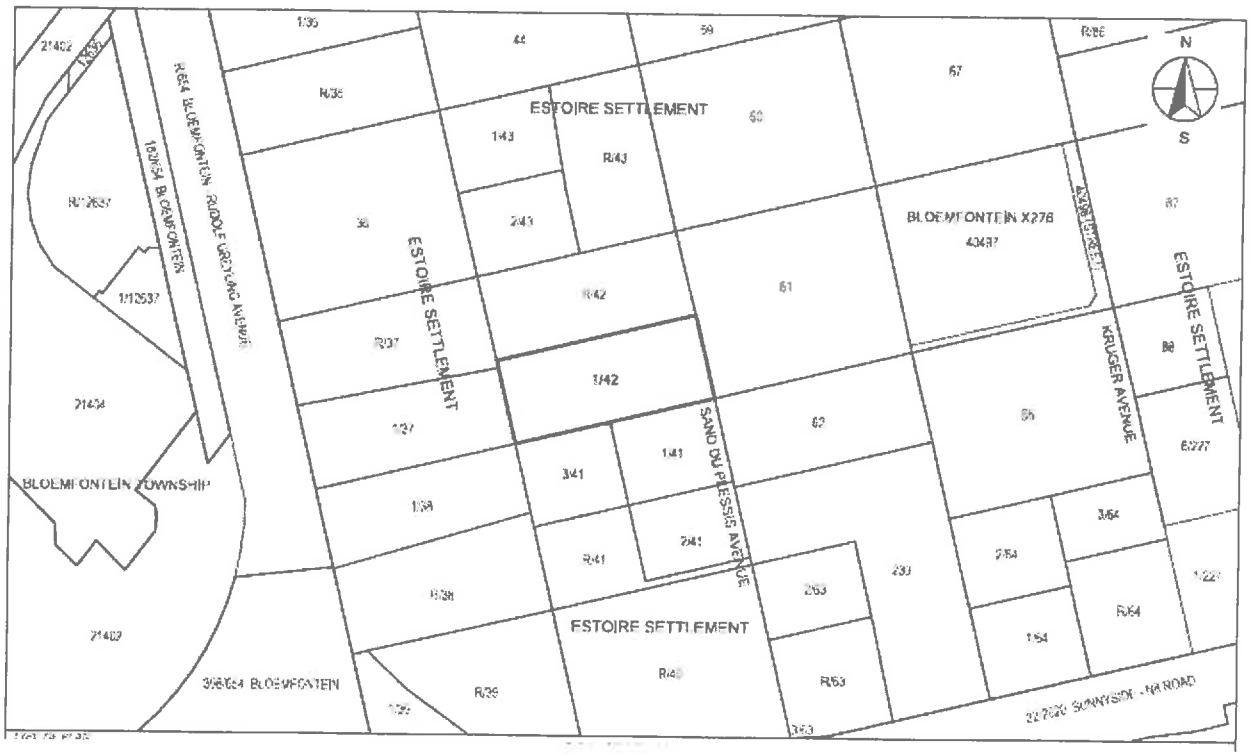
Could you please confirm if you support this application and confirm if sufficient capacity is available for this development?

YOURS FAITHFULLY

STEFAN ESTERHUYSEN Pr Tech Eng
DIRECTOR
FCE CONSULTING ENGINEERS

APPLICATION FOR THE REZONING OF PLOT 1/42 IN SAND DU PLESSIS AVENUE, ESTOIRE, BLOEMFONTEIN

ELECTRICITY SUPPLY AND NETWORK SERVICES REPORT



FCE CONSULTING ENGINEERS

T +27 51 403 8596 | F +27 51 430 1776
www.fceconsultingengineers.co.za
39 Brebner Street | Westdene 9301

1. INTRODUCTION

1.1 The purpose of an electrical services report is to discuss the availability and/or capacity of electricity from the local supply authority and in this case the supply authority is Centlec.

2. BACKGROUND

2.1 This area falls within the electricity supply area of CENTLEC. The developer applied for the rezoning of this stand for special use as a diesel depot.

2.2 The estimated connection size required is a 150kVA three phase low voltage connection.

3. EXISTING SERVICES

3.1 This plot does not have an electrical service connection.

4. FUTURE ELECTRICAL DEVELOPMENT

4.1 CENTLEC confirms that sufficient capacity is available on the existing network which feed from Estoire Distribution Centre.

4.2 The developer shall bear the full cost of any relocation of any electrical infrastructure or electrical services.

5. GENERAL INFORMATION AND CONDITIONS APPLICABLE FOR THE PROVISION OF ELECTRICAL CONNECTIONS

5.1 Only one electrical connection is allowed per erf, connections below 500kVA will be supplied at low voltage with one electrical isolating point with multiple meters points and connections above 500kVA supplied at 11kV.

5.2 Consumers are not allowed to supply electricity over stand boundaries to adjacent stands.

5.3 Proof of the registration of the different erven is required from the Deeds Office before the permanent supply will be energised.

5.4 Building plans for the development shall only be approved by CENTLEC when the following have been adhered to:

- Prove of subdivision and/or consolidation has been submitted if applicable.
- When applicable, an application has been received and a quotation being provided for the provision of electricity to the development.

6. SERVICES TO BE PROVIDED

6.1 The developer shall obtain all the required way leaves and permissions from all land owners and other service institutions and requirements as set out in the service agreement between the developer, MMM, Telkom and CENTLEC.

7. REQUIREMENTS

The following general conditions and requirements will apply to the application for the provision of electricity to the proposed development.

7.1 Without prejudice to CENTLEC's rights, the developer will be required to use an average ADMD not less than 1.5kVA for low cost consumer classification, 3.5kVA for middle cost consumer classification and 5.5kVA for high cost consumer classification per single residential stand, and not less than 50kVA per commercial stand. However, written load calculations for each development must accompany every application.

7.2 The developer shall assign a professional engineer to certify the load requirements for the proposed development.

7.3 The developer will be required to contribute towards the cost of extending and strengthening CENTLEC's external electrical supply network, on a "pro-rata» basis at the ruling rate per kVA, based on the calculated ADMD (after diversity maximum demand) for each development. Written load calculations done by the electrical engineers for each development must accompany every application.

7.4 All material and equipment used for the development shall comply with the applicable SANS regulations.

7.5 The developer shall bear the cost in order to make an adequate electricity supply and connection points available on the erf boundaries of each subdivision according to its designated use, and/or the cost that result from the moving or altering of existing electrical infrastructure.

7.6 Costs for the installation of metering equipment at the connection point of each part of the development shall be for the account of the developer/owner of the stand.

7.7 Although the responsibility of CENTLEC stops at the metering points on the erf boundaries of the proposed different subdivisions; it is still required from CENTLEC to approve all building plans within the boundaries of the development with reference to electrical provision to each building. Building plans for individual developments within the boundaries of the development shall only be approved by CENTLEC when the following have been adhered to:

- When applicable, an application has been received and a quotation being provided for the provision of electricity to the development.
- Detailed voltage drop calculations for the internal reticulation of the different stands as well as the internal electrical supplies to the different buildings on a specific stand according to the building plans of that stand accompanies the building plans at the time of submission for approval of building plans.

8 SUMMARY

8.1 CENTLEC confirms that sufficient capacity is available as mentioned above.

8.2 The estimated network contribution is R297 000.00 (Excluding 15% VAT) for a 150kVA electrical connection, but this could only be confirmed with a formal application to CENTLEC.

8.3 With the fulfillment of the foregoing requirements and conditions, CENTLEC has no objection to provide a 150kVA low voltage connection for this plot.

We trust that you will find the above in order. We are available should there be any queries.

Yours faithfully

STEFAN ESTERHUYSEN (PR TECH ENG)
DIRECTOR
FCE CONSULTING ENGINEERS

MANGAUNG
AT THE HEART OF IT ALL

CENTLEC
Reg No 2003/011612/30

ENGINEERING & WIRES
PLANNING

30 Rhodes Avenue
Oranjesig
Bloemfontein
9301
www.centlec.co.za
@centlec @centlecutility

Contact Person: Lesenyeho Khiba	**Date:** 15 May 2019
E-mail: lesenyeho.khiba@centlec.co.za	**Tel:** 051 409 2448 **Fax:** 051 xxxxxxx
Our Ref.: 18/2/8/4 Estoire	**Your Ref.: com 287**

FCE Consulting Engineers
39 Brebner Street
Westdene
Bloemfontein
9301

Attention: Mr. Stefan Esterhuysen

Dear Sir

CONFIRMATION OF THE AVAILABILITY OF ELECTRICAL CAPACITY FOR THE SPECIAL USE (DIESEL DEPOT) SITUATED AT PLOT 1/42 IN SAND DU PLESSIS AVENUE,ESTOIRE, MANGAUNG METROPOLITAN MUNICIPALITY, FREE STATE PROVINCE: COMMENTS

1. INTRODUCTION

1.1. The proposed special use (diesel depot) falls within Peri-urban edge of the Mangaung Metropolitan Municipality.

1.2. The provision of electricity to the proposed special use (diesel depot) shall be made possible from the adjacent Estoire DC.

1.3. CENTLEC (SOC) Ltd connection policy allows for only one electrical isolation point with multiple meter points that are below 500kVA, supplied at 400V three phase and one meter for connections above 500kVA supplied at 11kV three phase.

1.1. A detailed comment will be done when CENTLEC (SOC) Ltd receives a detailed application for the supply of the required 150 kVA low voltage connection.

2. EXISTING SERVICES

2.1. The existing network is currently supplied by Estoire DC.

2.2. The proposed special use (diesel depot) situated at plot 1/42 does not have service connection.

3. REQUIREMENTS

3.1. The developer is required to appoint an electrical engineering consultant that will be responsible for the internal reticulation of the developments. And also liaise with CENTLEC (SOC) Ltd personnel for the design of the internal reticulation of the proposed development.

3.2. The applicant is required to contribute towards the cost of extending and strengthening CENTLEC (SOC) Ltd.'s external electrical supply network, on a "pro-rata" basis at the ruling

rate per kVA, based on the total of the calculated ADMD (after diversity maximum demand).

3.3. It is the responsibility of the developer to apply for all the necessary wayleave services from all the relevant departments, before any trenching work can be done.

3.4. Without prejudice to CENTLEC (SOC) Ltd.'s rights, the developers will be required to use an average ADMD not less than 2.5kVA for low cost consumer classification, 3.5kVA for middle cost consumer classification and 5.5kVA for high cost consumer classification per single residential stand, and not less than 50kVA per commercial stand. However, written load calculations for each development must accompany every application.

3.5. The developer will bear the cost of any relocation of electrical services within the proposed development.

3.6. The developer is required to submit a formal application form at CENTLEC (SOC) Ltd. Customer Care department in order for CENTLEC (SOC) Ltd. to respond with an official cost payment form which will reflect all the amounts which are payable for the required connection. The application form should include detailed electrical designs and the estimated electrical load requirements.

4. CONCLUSION

With the fulfilment of the above mentioned requirements and conditions, CENTLEC (SOC) Ltd has no objection to the proposed development, as well as for the electrical supply of **150kVA** low voltage to the proposed special use (diesel depot) situated in Sand Du Plessis Avenue, Estoire.

We trust you find it in order.

M Mpholo
ACTING GENERAL MANAGER: PLANNING

APPENDIX H_5

CENTLEC Confirmation

MANGAUNG
AT THE HEART OF IT ALL

CENTLEC
Reg No. 2003/011612/30

ENGINEERING & WIRES
PLANNING

30 Rhodes Avenue
Oranjesig
Bloemfontein
9301
www.centlec.co.za
@centlec @centlecutility

Contact Person: Lesenyeho Khiba	**Date:** 15 May 2019
E-mail: lesenyeho.khiba@centlec.co.za	**Tel:** 051 409 2448 **Fax:** 051 xxxxxxx
Our Ref.: 18/2/8/4 Estoire	**Your Ref.: com 287**

FCE Consulting Engineers
39 Brebner Street
Westdene
Bloemfontein
9301

Attention: Mr. Stefan Esterhuysen

Dear Sir

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1. INTRODUCTION

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1.2. The provision of electricity to the proposed special use (diesel depot) shall be made possible from the adjacent Estoire DC.

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1.1. A detailed comment will be done when CENTLEC (SOC) Ltd receives a detailed application for the supply of the required 150 kVA low voltage connection.

2. EXISTING SERVICES

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3. REQUIREMENTS

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3.2. The applicant is required to contribute towards the cost of extending and strengthening CENTLEC (SOC) Ltd.'s external electrical supply network, on a "pro-rata" basis at the ruling

rate per kVA, based on the total of the calculated ADMD (after diversity maximum demand).

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4. CONCLUSION

With the fulfilment of the above mentioned requirements and conditions, CENTLEC (SOC) Ltd has no objection to the proposed development, as well as for the electrical supply of **150kVA** low voltage to the proposed special use (diesel depot) situated in Sand Du Plessis Avenue, Estoire.

We trust you find it in order.

M Mpholo
ACTING GENERAL MANAGER: PLANNING

APPENDIX H_6

Existing Tank Capacity

Diameter = 2,900 mm Length = 12,000 mm Total Tank Capacity = 79.262 litres

Depth (cm)	Capacity (litres)	Depth (cm)	Capacity (litres)	Depth (cm)	Capacity (litres)	Depth (cm)	Capacity (litres)
157.00	43.802	203.00	59.263	249.00	72.421		
158.00	44.149	204.00	59.582	250.00	72.662		
159.00	44.496	205.00	59.899	251.00	72.901		
160.00	44.842	206.00	60.215	252.00	73.137		
161.00	45.188	207.00	60.530	253.00	73.370		
162.00	45.534	208.00	60.844	254.00	73.601		
163.00	45.879	209.00	61.157	255.00	73.829		
164.00	46.224	210.00	61.469	256.00	74.055		
165.00	46.569	211.00	61.779	257.00	74.277		
166.00	46.914	212.00	62.089	258.00	74.497		
167.00	47.258	213.00	62.397	259.00	74.713		
168.00	47.601	214.00	62.703	260.00	74.927		
169.00	47.945	215.00	63.009	261.00	75.137		
170.00	48.288	216.00	63.313	262.00	75.344		
171.00	48.630	217.00	63.616	263.00	75.548		
172.00	48.973	218.00	63.917	264.00	75.749		
173.00	49.314	219.00	64.217	265.00	75.946		
174.00	49.656	220.00	64.516	266.00	76.140		
175.00	49.996	221.00	64.813	267.00	76.329		
176.00	50.336	222.00	65.108	268.00	76.516		
177.00	50.676	223.00	65.402	269.00	76.698		
178.00	51.015	224.00	65.695	270.00	76.876		
179.00	51.354	225.00	65.986	271.00	77.051		
180.00	51.692	226.00	66.275	272.00	77.221		
181.00	52.029	227.00	66.563	273.00	77.387		
182.00	52.366	228.00	66.849	274.00	77.548		
183.00	52.702	229.00	67.134	275.00	77.704		
184.00	53.038	230.00	67.417	276.00	77.856		
185.00	53.373	231.00	67.698	277.00	78.003		
186.00	53.707	232.00	67.977	278.00	78.144		
187.00	54.040	233.00	68.255	279.00	78.280		
188.00	54.373	234.00	68.530	280.00	78.410		
189.00	54.705	235.00	68.804	281.00	78.534		
190.00	55.036	236.00	69.076	282.00	78.651		
191.00	55.366	237.00	69.346	283.00	78.761		
192.00	55.696	238.00	69.614	284.00	78.864		
193.00	56.025	239.00	69.880	285.00	78.959		
194.00	56.353	240.00	70.144	286.00	79.045		
195.00	56.680	241.00	70.406	287.00	79.121		
196.00	57.006	242.00	70.665	288.00	79.185		
197.00	57.331	243.00	70.923	289.00	79.235		
198.00	57.656	244.00	71.178	290.00	79.262		
199.00	57.979	245.00	71.432				
200.00	58.302	246.00	71.682				
201.00	58.623	247.00	71.931				
202.00	58.944	248.00	72.177				

TANK CALIBRATION CHART

Dipstick Man

Piet Smit Construction

Horizontal tank with flat heads

Diameter = 2,900 mm Length = 12,000 mm Total Tank Capacity = 79,262 litres

Depth (cm)	Capacity (litres)	Depth (cm)	Capacity (litres)	Depth (cm)	Capacity (litres)	Depth (cm)	Capacity (litres)
1.00	27	40.00	6,600	79.00	17,483	118.00	30,290
2.00	77	41.00	6,842	80.00	17,793	119.00	30,632
3.00	141	42.00	7,085	81.00	18,105	120.00	30,974
4.00	217	43.00	7,331	82.00	18,418	121.00	31,317
5.00	303	44.00	7,580	83.00	18,732	122.00	31,661
6.00	398	45.00	7,831	84.00	19,047	123.00	32,005
7.00	501	46.00	8,084	85.00	19,363	124.00	32,349
8.00	611	47.00	8,339	86.00	19,681	125.00	32,693
9.00	729	48.00	8,597	87.00	19,999	126.00	33,038
10.00	853	49.00	8,857	88.00	20,319	127.00	33,383
11.00	983	50.00	9,119	89.00	20,639	128.00	33,729
12.00	1,118	51.00	9,382	90.00	20,961	129.00	34,075
13.00	1,260	52.00	9,648	91.00	21,283	130.00	34,421
14.00	1,406	53.00	9,916	92.00	21,607	131.00	34,767
15.00	1,558	54.00	10,186	93.00	21,931	132.00	35,113
16.00	1,715	55.00	10,458	94.00	22,256	133.00	35,460
17.00	1,876	56.00	10,732	95.00	22,582	134.00	35,807
18.00	2,042	57.00	11,008	96.00	22,910	135.00	36,154
19.00	2,212	58.00	11,285	97.00	23,237	136.00	36,501
20.00	2,386	59.00	11,565	98.00	23,566	137.00	36,849
21.00	2,564	60.00	11,846	99.00	23,896	138.00	37,196
22.00	2,747	61.00	12,128	100.00	24,226	139.00	37,544
23.00	2,933	62.00	12,413	101.00	24,558	140.00	37,892
24.00	3,123	63.00	12,699	102.00	24,890	141.00	38,239
25.00	3,316	64.00	12,987	103.00	25,222	142.00	38,587
26.00	3,513	65.00	13,276	104.00	25,556	143.00	38,935
27.00	3,714	66.00	13,567	105.00	25,890	144.00	39,283
28.00	3,918	67.00	13,860	106.00	26,225	145.00	39,631
29.00	4,125	68.00	14,154	107.00	26,560	146.00	39,979
30.00	4,336	69.00	14,450	108.00	26,896	147.00	40,327
31.00	4,549	70.00	14,747	109.00	27,233	148.00	40,675
32.00	4,766	71.00	15,045	110.00	27,571	149.00	41,023
33.00	4,985	72.00	15,345	111.00	27,909	150.00	41,371
34.00	5,208	73.00	15,647	112.00	28,247	151.00	41,719
35.00	5,433	74.00	15,949	113.00	28,586	152.00	42,066
36.00	5,661	75.00	16,254	114.00	28,926	153.00	42,414
37.00	5,892	76.00	16,559	115.00	29,266	154.00	42,761
38.00	6,125	77.00	16,866	116.00	29,607	155.00	43,108
39.00	6,362	78.00	17,174	117.00	29,948	156.00	43,456

PM Smit
Konstruksie & Vervoer
25 Houtkop Road, Duncanville, Vereeniging, Gauteng, Suid Afrika
Pieter 082 775 1106 Office: 063 308 3027
Email: pmsmitkonstruksie@gmail.com
Website: www.pmsmitconstruction.co.za

MANUFACTURING CERTIFICATE

Customer	Mega Tank Supplier	Order Nr	J19/655	Job Nr	J19/655

Tank Description

Thickness of steel: 6mm | Capacity: 79900L | Serial Nr: J19/655

Manufacturing Date: 27/02/2019

Cylinder Type

Hydraulic	v	Double Acting	x	Air	35KPA
Multi Stage	x	Single Acting	x	Displacement	YES

Front Clevis NO

Fear Clevis NO

Rod Threads NO

Pressure 35 KPA in 35KPA out

Internal Leaking NO

External Leaking NO

Bore	x	Stroke	x	Shaft OD	x
Seal Type	x	Piston	x	Gland	x

Remarks Yes

Tested By: Brandon van der Berg

Approved By: Pieter Smit

PM Smit

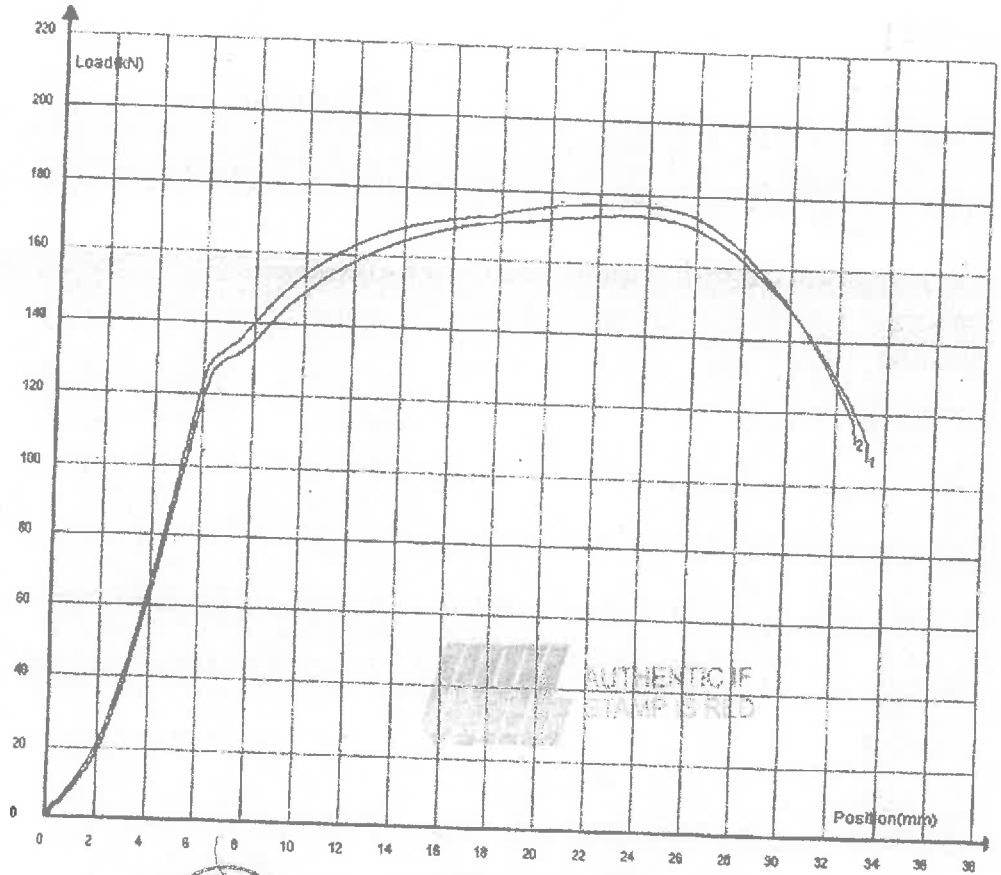
*This Certificate includes a 1 year guarantee on the tank. Please note that any changes made by yourself to the tanks structure after delivery forfeit this guarantee.

Date: 18/01/2019

VML TENSILE TEST REPORT

Customer: MJ NEL
VML No MT8302/15

	Sample No.	(b)	a	au	Lo	Lu	FeL	Fm	So	ReL	Rm	A	Z	
		mm	mm	mm	mm	mm	kN	kN	mm^2	MPa	MPa	%	%	
NO.1	PQR: PMS 001/15	20.01	15.61	11.14	50	69.48	128.1	173.5	312.36	410	555	39	68	PMD
NO.2	PQR: PMS 001/15	20.10	15.59	9.15	50	67.76	130.7	176.7	313.36	417	564	36	64	PMD



LRY Tillicks
SAIW 5107
MJ Nel cc

Tester

Auditing:

VAAL METALLURGIESE LABORATORIUMS (PTY) LTD

7 Brett's Lane, 21 Telford Street,
Duncanville, Vereeniging, 1939.
PO Box 4533, Vereeniging, 1930.
Tel: 016 455 2000/1 Fax: 016 422 1964.
E-mail: info@vml.co.za

TEST REPORT IN ACCORDANCE WITH EN 10204 3.1 OF SAMPLE AS SUPPLIED

CUSTOMER:	M.J. NELC.C	REPORT NUMBER:	8302/15/C
ADDRESS:	PO Box 958, MEYERTON, 1960		
TELEPHONE:	011-902 1623	DATE TESTED:	18/01/2019
FAX NUMBER:	011-902-1653	MATERIAL SPECIFICATION:	BS EN 10028-3 P355NL1 BS EN 10025-2 S355JO+N
E-MAIL:	admin@minel.co.za		
CONTACT PERSON:	THINUS	SAMPLE IDENTIFICATION:	REF : PMS 001/15 WQR : Q. Vd BERG 7801125066088 GMAW - (16mm)

BEND TEST

TEST SPECIFICATION: VML-QTY-MTD-0006 & ASME IX:2013

Bend Type	Mandrel Diameter (mm)	Bend Angle (Deg.)	Requirements - Comments:
SIDE (4T)	40	180°	ACCEPTABLE
SIDE (4T)	40	180°	ACCEPTABLE

Tests requested, in accordance with spec. provided	X	
Tests requested, NOT in accordance with spec. provided		
No requirements provided - (FOR INFORMATION ONLY)		
REMARKS: HEAT TREATMENT: AS WELDED		

LRY Tillicks
SAMW 5107
MJ Nel cc

WITNESSED BY: | TECHNICAL SIGNATORY

Testing was done according to the following VML procedures (Supporting international procedures) VML-QTY-MTD-0001 to 0023. (ASTM E8, BS EN ISO 6892-1, BS EN ISO 10002-1, BS 18, ASTM E23, ISO 148-1 & 10045-1, ASTM E92, EN ISO 6507-1, ASTM E18, EN ISO 6508-1, ASTM E10, EN ISO -6508-1, ASTM A450/450M, BS EN 10233. BS EN 10234, ASME IX, AWS D1.1, BS EN 15614, API 1104, ASTM A262, ASTM A923, ASTM E45, ASTM E384-11, BS EN ISO 5173, EN1321. § - This symbol indicates a non SANAS accredited test.

APPENDIX H7

Waste Removal Agreement

Service Level Agreement

entered into and between

Mack's Petroleum

("the Client")

and

ENVIRO [illegible] SA

("the Contractor")

TABLE OF CONTENTS

1. PARTIES

The Parties to this Agreement are -

1.1. **Mack's Petroleum**, registration number 2016/394638/07 a private company duly incorporated in accordance with the company laws of South Africa, with its registered address at 19A Sand du Plessis Avenue, Estoire Bloemfontein, 9302 and herein represented by Mack van der Merwe ("**the Client**"), and

1.2. **ENVIRO-TECH SA (PTY) LTD**, registration number 2012/041638/07, a private company duly incorporated in accordance with the company laws of South Africa, with its registered address at 22 Union Avenue Parkslg, Flat 6, Navalslg, Bloemfontein, 9330 and herein represented by Duane de Lange (**the "Contractor"**)

who warrant that they are duly authorised thereto.

2. RECORDAL

It is recorded that -

2.1 the Client is a Fuel Depot (Fuel Whole Seller)

2.2 the Contractor's business entails various services in the field of environmental waste management, 24H Spill response, safe disposal of hazardous waste, distribution of various cleaning and environmental products

2.3 the Client is desirous to utilise the services contemplated in clause 3.1 offered by the Contractor and the Contractor is desirous to provide these services to the Client; and

2.4 the Parties agree as set out herein

3. DEFINITIONS AND INTERPRETATION

3.1 Definitions

In this Agreement, unless the context otherwise requires, the following capitalised terms shall have the meanings assigned to them below and cognate expressions shall have corresponding meanings.

"Annexure"	means any annexure attached to this agreement and which forms part of this agreement
"Effective Date"	30th of May 2020
"Default Interest Rate"	The prime lending rate at which the Contractor's Bank lends on unsecured overdraft to its most favoured customers in the corporate sector
"Good Industry Practice"	applying, in relation to the manner in which the Services are rendered, the standards, practices, methods and procedures conforming to applicable law, and exercising that degree of skill, care, diligence, prudence and foresight that would reasonably and ordinarily be expected from a skilled and experienced person engaged in a similar type of undertaking under similar circumstances
"Parties"	the Client and the Contractor, and any reference to "a Party" shall refer to one of the relevant Parties as required by the context

"Services"	the services to be provided by the Contractor to the Client as set out in **Annexure A** to this Agreement and as may be subsequently amended in accordance with this Agreement
"Site address"	19A Sand du Plessis Avenue, Estoire, Bloemfontein, 9302, at which the Contractor is required to provide the Services
"Termination Date"	29th of May 2022, (24) months after the Effective Date; and
"the/this Agreement"	this service level agreement between the Parties together with the Annexures thereto

3.2 Interpretation

This Agreement shall be interpreted according to the following provisions, unless the context requires otherwise:

3.2.10 References to the provisions of any law shall include such provisions as amended, re-enacted or consolidated from time to time in so far as such amendment, re-enactment or consolidation applies or is capable of applying to any transaction entered into under this Agreement.

3.2.11. References to "**Parties**" shall include the Parties' respective successors-in-title and, if permitted in this Agreement, their respective cessionaries and assignees.

3.2.12. References to a "**person**" shall include an individual, firm, company, corporation, juristic person, Responsible Authority, and any trust, organisation, association or partnership, whether or not having separate legal personality.

3.2.13 References to "**clauses**", "**sub-clauses**" and "**Annexures**" are references to the clauses.

3.2.14 References to any other contract or document shall include (subject to all approvals required to be given pursuant to this Agreement for any amendment or variation to or novation or substitution of such contract or document) a reference to that contract or document as amended, varied, novated or substituted from time to time.

3.2.15 Words in parentheses and italics appearing after a clause reference or a reference to a Schedule are inserted for ease of reference only. If there is any discrepancy between the clause reference and the words in parentheses and italics, the latter shall prevail.

3.2.16. The headings of clauses, sub-clauses and Annexures are included for convenience only and shall not affect the interpretation of this Agreement.

3.2.17 The Annexures to this Agreement are an integral part of this Agreement and references to this Agreement shall include the Annexures.

3.2.18 The Parties acknowledge that each of them has had the opportunity to take legal advice concerning this Agreement, and agree that no provision or word used in this Agreement shall be interpreted to the disadvantage of either Party because that Party was responsible for or participated in the preparation or drafting of this Agreement, or any part of it.

3.2.19. Words importing the singular number shall include the plural and vice versa, and words importing either gender or the neuter shall include both genders and the neuter.

3.2.20. References to **this Agreement** shall include this Agreement as amended, varied, novated or substituted in writing from time to time.

3.2.21. The number of days indicated to commit an act or indicated for any other purpose, is calculated by excluding the first day and including the last day.

3.2.22 If any definition in clause 3.1 *(Definitions)* contains a substantive provision conferring rights or imposing obligations on any Party, effect shall be given to such provision as if it was a substantive provision in the body of this Agreement.

4. APPOINTMENT

The Client appoints the Contractor, which appointment the Contractor accepts, to provide the Services to the Client in accordance with the terms and conditions of this Agreement.

5. CO-OPERATION

Each Party shall co-operate with the other in the exercise and performance of their respective rights and obligations under this Agreement.

6. DURATION

This Agreement and the rights and obligations of the Parties under this Agreement shall take effect from the Effective Date and will terminate after 29th of May 2022 (24) months or the Termination Date.

7. GENERAL OBLIGATIONS OF THE CONTRACTOR

7.1 The Contractor shall in the provision of the Services, avoid undue hindrance, interruption or interference with the operations of the Client' Client or otherwise hinder the activities of the Client and its employees, save to the extent entitled to do so in terms of this Agreement or as may be reasonably necessary for the performance of the Services under this Agreement.

7.2 The Contractor shall not be relieved of any obligation, responsibility or liability under this Agreement by the appointment of any subcontractor to carry out any part of the Services. As between the Contractor and the Client, the Contractor shall be responsible for the payment, performance, acts, defaults, omissions, breaches and negligence of all subcontractors. All references in this Agreement to any performance, payment, act, default, omission, breach or negligence of the Contractor shall be deemed to include any of the same by a subcontractor.

7.3 The Client shall at all reasonable times and with prior written notice have access to (including the right to reproduce), all records and documentation required by the Contractor to be kept in relation to the Services for purposes of auditing, quality control and monitoring of the Services.

8. GENERAL RIGHTS AND OBLIGATIONS OF THE CLIENT

The Client -

8.1 shall grant the Contractor reasonable access to the Site(s) to enable it to properly perform the Services in terms of this Agreement;

8.2. shall compensate the Contractor for the performance of the Services in accordance with clause 11 (*Payment*);

8.3 shall, without prejudice to the obligation of the Contractor to provide the Services, provide reasonable assistance to the Contractor in its performance of the Services and specifically to ensure as far as it may be reasonably possible from its end a smooth integration and synchronization process to synchronize and integrate the activities of the Contractor and the Client;

8.4. shall inform the Contractor of the policies, procedures, protocols and directives of the Client as may be applicable to the Services and shall timeously inform the Contractor of any amendments thereto;

8.5. shall not appoint a third party to provide the same Services as that offered by the Contractor before acquiring prior written consent from it; and

8.6 reserves the right to refuse access to, or to order the removal from, the Site(s) of any person employed by or acting on behalf of the Contractor, whose presence or continued presence, in the reasonable opinion of the Client, is likely to have a material adverse effect on the performance of the Client of its functions and duties or is deemed not to be a fit and proper person to be present in or on the Site(s).

9. SERVICES

9.1 Provision of the Services

The Contractor shall provide the Services in accordance with this Agreement with effect from the Effective Date for the duration of the Agreement and shall be entitled to payment for the Services provided by it in accordance with clause 11 (*Payment*) as from the Effective Date.

9.2 Service Standards

The Contractor shall carry out the Services (each as a separate and distinct obligation) –

9.2.10 in accordance with Annexure A;

9.2.11 at its own cost, risk and expense and in accordance with Good Industry Practice;

9.2.12 in a manner that complies with and meets the requirements of all applicable law and specifically the legislation as set out below in clause 9.3;

9.2.13 in compliance with the reasonable policies, procedures, protocols and directives of the Client (as may be amended from time to time) as indicated; and

9.2.14. so that all aspects of the Services may be supervised by persons having adequate knowledge of such matters for the satisfactory and safe performance of the Services having regard to the activities which are carried on at the Site(s); and

9.2.15 in accordance with the provisions of this Agreement;

and shall upon receipt of a request by the Client within 10 (TEN) days supply to him evidence substantiating its compliance with this clause 9.2 (*Services Standards*).

9.3 Legislation and Registration

9.3.10 The Contractor, its employees and agents shall at all times in rendering the Services to the Client adhere to the requirements of the -

9.3.10.1 Occupational Health and Safety Act 85 of 1993 (as amended) and its regulations

9.3.10.2 Environment Conservation Act 73 of 1989 (as amended) and its regulations.

9.3.10.3. National Environmental Management: Waste Act, No 59 of 2008; and

10. PERFORMANCE MONITORING

10.1 The Contractor monitoring

The Contractor shall be responsible to monitor its performance in the delivery of the Services and shall implement appropriate monitoring, quality control and management procedures in accordance with Good Industry Practice in respect of the Services including such monitoring procedures as the Parties may from time-to-time agree.

11. PAYMENT

11.1 Entitlement to payment

Subject to the provisions of this Agreement, the Client shall as of the Effective Date remunerate the Contractor in accordance with the provisions below.

11.2 Service fees

11.2.1 The service fees in relation to the Services to be rendered by the Contractor to the Client as set out in Annexure A entails the following amounts:

11.2.1.1 Any monthly/weekly fees

11.2.1.2 Any per service fees

11.2.1.3 Any once- off fees

11.2.1.4 Any increases yearly etc

11.3 Invoicing and payment arrangements

11.3.1. Prior to the 25th (TWENTY-FIFTH) day of each month, the Contractor shall submit to the Client an invoice ("Monthly Invoice") detailing and aggregating the following:

11.3.1.1 The net monthly payment for the preceding month, indicating –

11.3.1.1.1 the monthly payment in respect of all the service fees as contemplated in clause 11.2 above payable for the preceding month;

11.3.1.1.2 any other amounts agreed or determined to be due and payable under the Agreement by the Client to the Contractor;

11.3.1.1.3 any interest due in accordance with clause 11.3.3; and

11.3.1.1.4 any VAT payable (if applicable).

11.3.2 The Client shall pay the amount of a valid Monthly Invoice within 14 (FOURTEEN) days of its submission and delivery to the Client of a valid invoice in respect thereof.

11.3.3 Save where expressly provided otherwise, where any payment or sum of money due from the Client to the Contractor in terms of the Agreement is not paid within 14 (FOURTEEN) days of the due date it shall bear interest thereon at the Default Interest Rate from the due date (whether before or after any judgement) until actual payment.

11. CONFIDENTIALITY

The Contractor undertakes, for the duration of this Agreement as well as after the termination hereof, not to directly or indirectly, utilize, disclose or make public to any third party any confidential information of the Client and to keep any confidential information secret and confidential at all times, unless such disclosure takes place in the ordinary course of the carrying out by a Party of its obligations in terms of this Agreement.

12. TERMINATION

12.1. **Non-default termination**

12.1.1 This Agreement shall automatically be terminated on the Expiry Date, unless it has been terminated earlier in accordance with the provisions of this Agreement.

12.1.2 Without prejudice to clause 12.2 (Breach), either Party shall be entitled to and after good cause has been shown, voluntarily terminate this Agreement at any time on 3 (THREE) months' written notice to the other indicating such termination.

12.1.3. To avoid doubt it is recorded that upon such early termination as contemplated in clause 12.1.2 above the Contractor shall be entitled to claim an early termination penalty as set out in Annexure B hereto from the Client.

12.2. Breach

Should any Party (the **guilty party**) commit a breach of this agreement and fail or refuse to rectify that breach within 14 (FOURTEEN) days after receipt of a written notice from the other Party (the **aggrieved party**), calling upon the guilty party to rectify that breach, the aggrieved party shall be entitled, without prejudice to any other of his rights, to forthwith cancel this Agreement by written notice to the guilty party.

13. WARRANTIES

13.1. **Contractor warranties**

The Contractor warrants that -

13.1.1. the obligations of the Contractor under this Agreement are legal, valid and binding and enforceable against it in accordance with the terms of the Agreement;

13.1.2 it has satisfied itself as to the nature and extent of the Services to be provided in terms of the Agreement.

13.2 **Client warranties**

The Client warrants that -

13.2.1 it has taken all necessary actions to authorise the execution of this Agreement; and

13.2.2 it has not knowingly omitted to disclose any material information in its possession or under its control relating to the Services or Sites.

14. INDEMNITIES

Each Party indemnifies and shall keep the other Party indemnified at all times against all direct losses sustained by either Party in consequence of -

14.1. any –

14.1.1 loss of or damage to property;

14.1.2 breach of a statutory duty arising under any applicable Law;

14.1.3 claim for or in respect of the death or personal injury of any individual; or

14.1.4 other claim, action, charge, cost, demand or expense

(including, without limitation, any legal fees or costs) arising in connection with the performance or non-performance of any of the Services, save to the extent caused by the gross negligence or wilful misconduct of either Party or by a breach of an express provision of this Agreement; or

14.2 any breach by either Party of any warranties given by them in this Agreement.

15. DISPUTE RESOLUTION

15.1 The dispute resolution procedure contained in this clause 15 ("**Dispute Resolution Procedure**") shall apply to any dispute, claim or difference between the Parties arising out of or relating to this Agreement ("a **dispute**").

15.2 A dispute will not be deemed to be a dispute until one of the Parties has provided a written notice conveying the nature and scope of the dispute to the other Party.

15.3 All disputes shall first be referred to a mediation committee consisting of the Contract Managers of the Parties ("**Mediation Committee**") for resolution. An agreement reached by the Mediation Committee shall be reduced to writing and shall be binding on the Parties.

15.4 If the Parties have been unable to resolve any dispute within 10 (TEN) working days of referral to the Mediation Committee, either Party may refer the matter to arbitration.

15.5. The arbitration shall be conducted in accordance with the provisions of the Arbitration Act, 1965 (Act No 42 of 1965), as amended from time to time, provided that –

15.6. a single arbitrator shall be appointed;

15.7 the arbitrator shall be a practicing counsel or attorney of not less than 10 (TEN) years standing agreed upon by the parties within 10 (TEN) days after the date on which the arbitration is called for;

15.8 if the parties fail to reach agreement within 10 (TEN) days after arbitration has been called for on the arbitrator to be appointed, such arbitrator shall be appointed by the President for the time-being of the Law Society of the Free State;

15.9 The arbitration proceedings shall take place in Bloemfontein at a venue and time to be determined by the arbitrator.

15.10 The arbitration proceedings shall be held informally and in a summary manner, and all procedural requirements and formalities shall be determined by the arbitrator. In determining such formalities and procedure, the arbitrator does not need to observe the normal strict rules of evidence or usual formalities of procedure.

15.11 The decision of the arbitrator shall be final and binding on the Parties.

15.12 The cost of the arbitration proceedings shall be borne by the Parties as decided by the arbitrator.

15.13 Notwithstanding the provisions of this clause 15, any Party shall be entitled to approach a competent court of law having jurisdiction to obtain any urgent relief which may be required by such Party.

16. MISCELLANEOUS

16.1 Save as expressly permitted hereunder, a Party shall not, without the prior written approval of the other Party, which shall not be unreasonably withheld, assign, cede, delegate, transfer or otherwise dispose of any right or obligation under this Agreement to any other person.

16.2 The Contractor shall not subcontract with any person for the carrying out of any of its obligations under this Agreement, without, in each case, the prior written consent of the Client, which consent shall not be unreasonably withheld or delayed.

16.3 This Agreement shall be governed by and construed in accordance with the laws of the Republic of South Africa. Subject to the provisions of clause 15 (*Dispute Resolution*), each Party agrees that the Free State Provincial Division of the High Court of South Africa shall have exclusive jurisdiction to hear and decide any application, action, suit, proceeding or dispute in connection with this Agreement, and irrevocably submits to the jurisdiction of the Free State Provincial Division of the High Court of South Africa.

16.4 No provision of this Agreement (including, without limitation, the provisions of this clause) may be amended, substituted or otherwise varied, and no provision may be added to or incorporated in this Agreement, except (in any such case) by an agreement in writing signed by the duly authorised representatives of the Parties.

16.5 Any relaxation, indulgence or delay (together "**Indulgence**") by either Party in exercising, or any failure by either Party to exercise, any right under this Agreement shall not be construed as a waiver of that right and shall not affect the ability of that Party subsequently to exercise that right or to pursue any remedy, nor shall any Indulgence constitute a waiver of any other right (whether against that Party or any other person).

16.6 Except where expressly provided to the contrary in this Agreement, this Agreement constitutes the entire agreement between the Parties in connection with its subject matter and supersedes all prior representations, communications, negotiations and understandings concerning the subject matter of this Agreement.

16.7 This Agreement may be executed in any number of identical counterparts, all of which when taken together shall constitute one agreement. Any single counterpart or a set of counterparts taken together which, in either case, are executed by the Parties shall constitute a full original of this Agreement for all purposes.

16.8. All notices and any other communications whatsoever (including, without limitation, any approval, consent, demand, query or request) by either Party in terms of this Agreement or relating to it shall be given in writing and sent by registered post, or delivered by hand, or transmitted by facsimile or electronic mail to the recipient Party at its relevant address set out below:

16.8.1. If to the Client, at:

Address: 19A Sand du Plessis Avenue, Estoire, Bloemfontein, 9302

Electronic mail address: mack@mackep.co.za

Marked for the attention of: M van der Merwe

16.8.2 If to the Contractor, at:

Address: 3 Frikkie van Kleyenburg street, New East End, Bloemfontein 9301

Electronic mail address: jp-enr@enviro-techsa.co.za

Marked for the attention of: J Meyer

16.9 Either Party may, by written notice to the other Party, change any of the addresses at which or the designated person for whose attention those notices or other communications are to be given.

16.10 Any notice or other communication given by any Party to the other Party which –

16.10.1 is sent by registered post to the addressee at its specified address shall be rebuttably presumed to have been received by the addressee on the 7th (SEVENTH) day after the date of posting; or

16.10.2 is delivered by hand during the normal Client hours of the addressee at its specified address shall be rebuttably presumed to have been received by the addressee at the time of delivery; or

16.10.3 is transmitted by facsimile copier to the addressee at the addressee's specified facsimile number shall be rebuttably presumed to have been received by the addressee on the date of transmission as indicated on the sender's facsimile transmission report; or

16.10.4 is transmitted by electronic mail to the addressee at the addressee's specified electronic mail address shall be rebuttably presumed to have received by the addressee on the date of transmission as reflected on the sender's electronic mail records.

16.11 The Parties choose their respective physical addresses in clause 16.8 as their respective *domicilia citandi et executandi* at which all documents relating to any legal proceedings to which they are a party may be served. If that address is changed to another address which is not a physical address in the Republic of South Africa then the original address shall remain the *domicilium citandi et executandi* of the relevant Party until it nominates a new physical address within the Republic of South Africa in writing to be its new *domicilium citandi et executandi*.

16.12 Each Party shall be responsible for paying its own costs and expenses incurred in connection with the negotiation, preparation and execution of this Agreement.

Nothing in this Agreement shall be construed as creating a partnership or a contract of employment between the Contractor and the Client. Save as expressly provided for in this Agreement, the Contractor will not be, or deemed to be, an agent of the Client and the Contractor shall not hold itself out as having authority or power to bind the Client in any way.

Thus done and signed at Hermanus on this 6 day of July 2020

As witnesses:

By
for and on behalf of
MACKIE PETROLEUM

who warrants that he/she is duly authorised thereto

Thus done and signed at Bloemfontein on this 07 day of July 2020

As witnesses

By DUANE DE LANGE
for and on behalf of

ENVIRO-TECH SA (PTY) LTD

who warrants that he is duly authorised thereto

ANNEXURE A: SERVICES

The Contractor shall provide services as listed below:

- Dispose of Hazardous Waste on a as and when needed basis from the clients premises
- Dispose of General Waste on a as and when needed basis from the client's premises
- Assist with hydrocarbons spills/leaks on a as and when needed basis from the client's premises
- Supply of Oil/Diesel Spill Kits to the client as and when needed

APPENDIX H8

Environmental Awareness Plan

1. Background

The aim of the current document is to make all employees, contractors, visitors, etc. aware of specific issues related to their surroundings, including biotic and abiotic elements, such as land, soil, plants, animals, air, water, as well as awareness of the built, social and economic surroundings as well as the impacts that the proposed project have on the mentioned elements.

2. Objectives for Environmental Awareness

It is important that the employees understand how each action of the project may influence the environment. It is just as important that each person understand the management strategies as it ensures that the impact on the environment is kept to a minimum.

The Environmental Awareness Plan should be sufficient to make all those involved in the proposed project aware of the risks that may occur as well as the necessary mitigation required to minimise the risks involved.

2.1. Target Groups

The target groups can be summarised as the management, administrative and general employees, as well as contractors.

2.2. Roles and Responsibility

2.2.1. Top Management

- Provide resources to ensure that the environmental awareness plan is implemented.

2.2.2. Environmental Team

- Approve all environmental awareness activities.
- Accountable for ensuring adequate resources are allocated for the effective implementation of the environmental awareness plan.
- Responsible for providing strategic direction for effective implementation of the environmental awareness plan.
- Responsible for overall establishment and implementation of environmental awareness plan.

- Ensure that environmental activities and information is communicated to the employees and contractors.
- Implement and drive the environmental awareness plan.

2.2.3. Employees and Contractors

- Adhere to and co-operate with management strategies as set out in the environmental awareness plan.

3. Implementation

The induction workshop will be conducted in order to inform all personnel (as well as contractors) that will be working on site of the Environmental Awareness Plan. During the induction, the risks for all aspects will be explained and the appropriate management options will be discussed. Monitoring programmes will also be discussed in order to identify and monitor the proposed project's impact on the environment and to discuss various remediation actions, should any deterioration be observed.

All employees will attend an induction workshop prior to the construction phase in order to ensure that all risks and mitigation measures are discussed prior to the occurrence of potential impacts. The workshop should be repeated to all new employees / contractors on site.

3.1. Induction

The Environmental Awareness Program must be implemented to:

- Develop and implement environmental education activities for all employees
- Organise environmental awareness activities on site
- Participate in environmental education

The constitution of the Republic of South Africa (1996) gives everyone the right to:

(a) An environment that is not harmful to their health or well-being

(b) Have the environment protected for the benefits of present and future generations through reasonable legislation in order to:
   (i) Prevent pollution and ecological degradation
   (ii) Promote conservation
   (iii) Promote justifiable economic and social development while protecting our environment.

Therefore, those who may cause pollution or other environmental degradations must take reasonable preventative measures to:

(a) Investigate, assess and evaluate the impacts
(b) Inform and educate employees about environmental risks associated with their work and the manner in which their tasks must be performed in order to avoid causing pollution or environmental degradation.

The induction workshop will focus on activities that carry an environmental risk, actions to be taken to reduce these risks and procedures to be followed in the event of an incident.

Environmental goals & objectives and the benefit of achieving such goals will be discussed as part of the induction workshop.

3.2. In-house training

In-house training events will be organised with relevant employees. The points to be discussed at these events will be determined by the relevant department. In addition, employees will participate in determining what environmental issues and / or concerns are relevant to their specific occupation.

The environmental incident report will also be discussed at these sessions.

3.3. Training during construction phase

3.3.1. HoD Meetings

The General Manager communicates information to senior management on environmental issues and the information is minuted.

3.3.2. SHEQ Meetings

Environmental issues are to be discussed at each of the SHEQ meetings. The responsible person for each of the environmental issues should also be appointed.

3.4. On the Job Training

Expected environmental issues and concerns specifically related to their occupation will be discussed with employees throughout the construction phase. Employees will be trained on how to respond to such environmental impacts.

3.5. General training & skills development

Training in basic environmental and pollution control skills will be given to employees working on site.

3.6. General Aspects

i) The contractors should ensure that all employees and any third party are adequately trained with regard to the implementation of the EMPr, before any of the contractor's obligations are carried out by the above mentioned parties. This includes training regarding any environmental legal requirements as well as any other obligations. The appointed ECO (or external specialists) should conduct the required training.

ii) The management (including the executive as well as middle) as well as general labour levels should be targeted during the training sessions.

iii) Environmental Awareness Training Programmes should include, but not limited to, the following:

- Names, positions and responsibilities of personnel to be trained in various training sessions
- Schedules indication dates for various training sessions
- Framework for various training sessions
- Summarised content of training sessions
- Importance of conformance with environmental regulations and policies

- Impacts that various work activities may have on various environmental aspects
- Roles and responsibilities of employees to ensure conformance with the EMPr, best practices as well as other environmental policies
- The potential consequences should the specified operating procedures not be adhered to
- Implementation of various mitigation measures
- Information on the protected / species of concern that may be observed on / near the construction site
- Information on the possible occurrence of archaeological and/or historical findings on site
- Importance of:
  - not littering
  - using supplied toilet facilities
  - using water sparingly
  - minimising the occurrence of pollution (air, soil, surface water or groundwater resources)
  - re-use of material where possible (limit the generation of waste)

iv) All records of all training sessions should be available on site. An induction presentation on environmental awareness as well as the EMPr shall be given to all employees, in a language that is understood by the employees.

v) The on-site ECO as well as the contractor should monitor the performance of employees to ensure that the above is adhered to.

4. Evaluation of the Environmental Awareness Plan

The ECO will evaluate the Environmental Awareness Plan throughout the construction, operation and closure phase.

Environmental Awareness Plan	
Objective / Environmental parameter: General measures to consider	
Risks	**Mitigation measures**
• Negative impact on Environment, such as pollution, degradation, loss of vegetation, etc. • Surface and groundwater pollution.	• Any construction is disruptive and the environment must be given consideration with every activity undertaken • All relevant standards relating to legislation should be adhered to (including waste emissions, waste disposal, noise regulations, etc.) • According to Section 28 of the NEMA Act 107, every person who cause, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring and if it can't be avoided or stopped, to minimize and rectify such pollution or degradation of the environment. • The pollution control provision in Section 19(1) of the National Water Act (Act 36 of 1998) should be adhered to at all times.

Environmental Awareness Plan	
Objective / Environmental parameter: Planning phase	
Risks	**Mitigation measures**
• Loss of protected fauna and / or flora. • Loss of natural occurring vegetation • Contamination of soil / water resources No drinking water available to employees • Occurrence of veld fires Loss of artefacts / heritage material • Damage to nearby infrastructure • Startle domestic and wild animals • Damage to nearby infrastructure • Undertaking unauthorised activities	• Permits will be obtained for the removal / transplantation of protected species (if any) that are located within the construction area where no alternatives are possible. • Care will be taken to prevent unnecessary damage to vegetation near to construction activities. • A monitoring system should be implemented to determine the occurrence (if any) of any fuel / oil spillages from the fuel tanks / wash-bay during the operational phase. • The necessary Environmental Authorisation will be obtained before any activities listed in the relevant NEMA Regulations are undertaken. • In addition, the necessary DWS registrations will be obtained, before any construction activities are undertaken. • The necessary precautions with regard to road safety will be implemented for construction work to be undertaken within road crossings (if any). • Proper sanitation, potable water and waste facilities will be in place before construction activities are undertaken. • A blasting permit will be obtained before blasting activities is undertaken (if any).

Environmental Awareness Plan	
Objective / Environmental parameter: Construction phase - general	
Risks	**Mitigation measures**
• Loss of natural occurring vegetation • Contamination of soil / water resources • No drinking water available to employees • Occurrence of veld fires Loss of artefacts / heritage material • Damage to nearby infrastructure • Startle domestic and wild animals • Damage to nearby infrastructure	• Care will be taken to prevent unnecessary damage to vegetation near to construction activities. • The necessary Water Use Authorisations will be available on site. • The necessary precautions with regard to road safety will be implemented for construction work within road crossings (if any). • Proper sanitation, water and waste facilities will be in place for construction workers throughout the construction phase. • Chemical toilets will be cleaned and serviced regularly and proof thereof will be available on site. • Potable water will be made available daily to workers on site. • Fire-fighting equipment will be available on site, where applicable. • If artefacts or graves are uncovered during construction activities, work in the immediate vicinity will be stopped until the project Archaeologist and SAHRA has been consulted. • Adjacent landowners will be notified of proposed blasting, 24 hours prior to blasting activities.

Environmental Awareness Plan	
Objective / Environmental parameter: Water resources	
Risks	**Mitigation measures**
• Erosion • Undertaking of unauthorised activities • Contamination of stormwater • Contamination of soil • Contamination of surface and / or groundwater resources • Ponding of stormwater	• No activities will be undertaken within 32 m of a watercourse / within the 1:100 year floodline, without the necessary authorisations (for example from DESTEA and DWS). • Caution will be taken to ensure that construction materials are not dumped or stored within storm water management systems. • Emergency plans will be in place in case of fuel spillages (to limit the occurrence of soil as well as groundwater pollution). • A monitoring system should be implemented to determine the occurrence (if any) of any fuel / oil spillages from the fuel tanks / wash-bay during the operational phase. • The necessary mitigation measures should be implemented immediately, should any leakages / spills be detected. • Weather forecasts from the South African Weather Bureau of up to three days in advance will be monitored on a daily basis to avoid exposing soil or construction works or materials during a storm event and appropriate action will be taken in advance to protect construction works should a storm event be forecasted. • Construction activities in the storm water infrastructure will be limited through proper demarcation and appropriate environmental awareness training. • The Contractor is responsible to inform all staff of the need to be vigilant against any practice that will have a harmful effect on waterways. • All no-go areas will be demarcated under guidance of the Environmental Control Officer (ECO). • Infilling, excavation, drainage and hardening of surfaces will not occur unnecessarily in storm water infrastructure. • The design of drainage systems will ensure there is no contamination, eutrophication or

Environmental Awareness Plan	
Objective / Environmental parameter: Water resources	
Risks	Mitigation measures
	increased erosion. • Drainage systems will be maintained regularly in order to minimize the runoff of harmful chemical substances into the waterway(s). • It will be ensured that the construction activities have minimal effects on the flow of water through the storm water infrastructure.

Environmental Awareness Plan	
Objective / Environmental parameter: Handling and Storage of materials	
Risks	**Mitigation measures**
• Contamination of stormwater, surface and / or groundwater • Contamination of soil • Occurrence of veld fires	• All chemicals used during the development, including fuel, will be stored in a proper storeroom or protected area to prevent pollution. • Vehicles will be serviced at designated areas. No oil, diesel or other chemicals may be spilled or discharged anywhere. • Where applicable, the contractors will ensure that all relevant national, regional and local legislation regarding storage, transport, use and disposal of petroleum, chemical, harmful or hazardous substances and materials are adhered to, where necessary. • Cement and concrete mixing, if applicable, will only take place within the construction site. No concrete will be mixed directly on the ground. • All environmental problems occurring on the site such as chemical spillage, wasteful water disposal, etc. will be reported to the ECO. The ECO should implement best practices to rectify the impacts thereof on the environment. • Spill response equipment must be available during the handling and loading of hazardous waste (if any) • Hazardous substances (including the above ground fuel tanks) to be stored in bunded area. Bund walls will have a capacity of at least 110% of the total capacity of the stored volume. • No oil, diesel or other chemicals may be spilled or discharged anywhere and contact with bare soil should be avoided at all cost. • Drip trays will be used during the servicing of vehicles as well as the transfer of chemicals / substances from transportation vehicles. • All environmental problems occurring on the site such as chemical spillage, wasteful water disposal, etc. will be reported to the ECO. The ECO should implement best practices to rectify the impacts thereof on

Environmental Awareness Plan Objective / Environmental parameter: Handling and Storage of materials	
Risks	Mitigation measures
	the environment. • A monitoring system should be implemented to determine the occurrence (if any) of any fuel / oil spillages from the fuel tanks / wash-bay during the operational phase. • The necessary mitigation measures should be implemented immediately, should any leakages / spills be detected.

Environmental Awareness Plan	
Objective / Environmental parameter: Waste Management (Note that waste refers to all construction debris and domestic waste generated due to construction activities.)	
Risks	**Mitigation measures**
• Contamination of stormwater, surface and or groundwater • Contamination of soil • Occurrence of veld fires • Air pollution	• The contractor is responsible for the removal of construction waste. • Suitable containers will be placed on site to collect all solid waste. These will be emptied regularly. • No littering is permitted. During the construction period the site will be maintained in a neat and tidy condition. • All solid waste produced will be disposed of at an authorized landfill site. • All hazardous waste will be disposed of at an authorized hazardous landfill site. • Recyclable waste will be sold / re-used, where possible. • No dumping, burning or burying of waste will be undertaken on site. • A waste management plan will be compiled and designed to ensure adequate waste management activities. • Areas used for waste storage and loading of materials should be lined and bund walls have to be erected to contain any spills that might occur.

Environmental Awareness Plan	
Objective / Environmental parameter: Soil, erosion and vegetation management	
Risks	**Mitigation measures**
• Contamination of surface and groundwater resources • Contamination of soil • Loss of topsoil • Loss of natural occurring vegetation • Erosion • Unsafe road • Occurrence of veld fires • Harm to animals • Slow regrowth of natural occurring vegetation • Establishment of alien vegetation	• Construction activities will be limited to designated construction areas to prevent peripheral impacts on surrounding natural habitats. • Construction vehicles will keep to constructed roads where possible, so that natural vegetation is not destroyed unnecessarily. • Access roads or temporary crossings must be non-erosive, structurally stable and not induce flooding / safety hazard. • If any access road or temporary crossing is impaired, it will be repaired immediately to prevent any future / further damage. • All human movement and activities will be contained within designated construction areas in order to prevent peripheral impacts on surrounding natural habitat. • Erosion management is important. Rehabilitation of disturbed areas will be undertaken to help the recovery of the vegetation. • Stockpiled material will be stockpiled in an area where it will not be disturbed by vehicles. • Stockpiled material will be protected from washing away during rainstorms. For example, one layer of bricks or stones can be placed around the stockpiled topsoil. • Stockpiled material will be placed on the cleared areas once construction is completed. Re-spreading of topsoil (to its natural depth / as stipulated by the ecologist) is to be undertaken. • An alien control and monitoring programme will be developed starting during the construction phase and will be carried over into the operational phase. • Any proclaimed weed or alien species that germinates during the contract period will be cleared by hand / approved chemicals before flowering thereof. • Imported fill material will be monitored

Environmental Awareness Plan Objective / Environmental parameter: Soil, erosion and vegetation management	
Risks	Mitigation measures
	during and after construction for the presence of any alien species. Any such species will be removed immediately. • No open fires allowed. Provision will be made to limit the occurrence of accidental fires. • No firewood will be collected on site or in surrounding areas, without written approval from the landowner. • Fire fighting equipment will be available on site. • Species, especially grasses, trees and shrubs occurring in the region will be used to rehabilitate disturbed areas. • No animals may be harmed / captured / trapped and / or hunted. This must be strictly enforced. • Animals found at the construction site will be removed and relocated to a suitable area, by a suitable person. • Compacted soils (such as dirt tracks not to be utilised during the operational phase) must be ripped to ensure the establishment of natural occurring vegetation.

Environmental Awareness Plan	
Objective / Environmental parameter: Noise and dust control	
Risks	**Mitigation measures**
• Generation of nuisance noise • Generation of nuisance dust	• Construction activities will be limited to normal daytime hours. • Noise levels will be kept as low as possible during the construction phase in order not to disturb adjacent landowners. • Proper mitigation measures will be implemented to limit noise (e.g. the installation of silencers, where required). • Proper mitigation measures will be implemented to limit the formation of dust (e.g. wetting of construction area, when required). • The speed of the construction vehicles will be limited to avoid dangerous conditions, the formation of dust and the excessive deterioration of roads being used.

Environmental Awareness Plan	
Objective / Environmental parameter: Safety and Security	
Risks	**Mitigation measures**
• Health risks • Safety risks • Unsafe Road • Occurrence of veld fires	• The contractors will comply with the Occupational Health and Safety Act, National Building Regulations and any other national, regional or local regulations with regard to safety on site. Construction contracts will include safety and security measures for staff. • Fire extinguishers will be available on site and in the construction camp (if any). • Precautions to ensure that construction staff and sites are visible and proper PPE will be provided to all employees. • Construction work within road reserves will accommodate road users as far as possible. This includes the following: – Roads will be crossed in half widths at a time to minimise the impact on vehicular traffic, where possible. – Construction along and across existing roads will be executed in such a manner that both pedestrian and vehicular traffic is accommodated at all times. – The contractor will be required to maintain adequate access to all public and private property at all times. – Contractor will supply, erect and maintain road signs for all work areas conforming to the prescribed layout and requirement of the South African Road Traffic Signs Manual and other relevant notices. – The contractor will be required to maintain adequate access to all public and private property at all times.

Environmental Awareness Plan	
Objective / Environmental parameter: Heritage Management	
Risks	**Mitigation measures**
• Loss of heritage / archaeological / palaeontological artifacts	• In the case of the discovery of any heritage, archaeological or palaeontological significance, the work in the area will be stopped and reported to the archaeologist and SAHRA. Any construction activities in the nearby vicinity may only commence after approval is obtained from SAHRA as well as the ECO. • Should any fossils be uncovered within intact sedimentary rocks during the development or if excavations exceed more than 1 m into sedimentary rock, a suitably qualified Palaeontologist must evaluate the finds or monitor the exposed areas as soon as possible. • Known heritage resources (if any) must be avoided as far as possible. • Employees should be encouraged and informed of the need to be on the look-out for potential fossils / buried archaeological material. • In the case of the discovery of any stone tools or other archaeological or palaeontological material, the work in the immediate vicinity should temporarily cease and reported to the archaeologist and SAHRA. Should any human remains be exposed, the archaeologist as well as the local SAPS should also be notified. • If any evidence of archaeological sites or remains (e.g. remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, charcoal and ash concentrations), fossils or other categories of heritage resources are found during the proposed development, SAHRA APM Unit (Tel: 021 462 5402) must be alerted. If unmarked human burials are uncovered, the SAHRA Burial Grounds and Graves (BGG) Unit (Tel: 012 320 8490), must be alerted immediately. A professional archaeologist or palaeontologist, depending on the nature of the finds, must

	be contracted as soon as possible to inspect the findings. If the newly discovered heritage resources prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation may be required subject to permits issued by SAHRA. • Appropriate measures should be undertaken by the ECO until the archaeologist / SAPS visits the site. This should include the following: – Site should be fenced with 'danger tape' – Position of finding should be recorded – Depth of finding should be recorded – Digital image of the finding should be taken • No information on the findings may be made public without the consent of the archaeologist / SAPS. • Construction activities in the area may only continue after approval from the archaeologist and SAHRA.

Environmental Awareness Plan	
Objective / Environmental parameter: Site Clean-up and Rehabilitation	
Risks	**Mitigation measures**
• Contamination of surface and groundwater resources • Contamination of soil • Loss of topsoil • Loss of natural occurring vegetation • Erosion • Unsafe road • Occurrence of veld fires • Harm to animals • Slow regrowth of natural occurring vegetation • Establishment of alien vegetation	• Temporary structures and office sites (if any) will be dismantled and removed after completion of the construction phase of the project. • All waste, equipment, materials, etc. used during construction will be cleared from the site. The contractors will ensure that the site is cleared and rehabilitated to the satisfaction of the ECO. • An alien plant control and monitoring programme will be implemented. • Re-vegetation of disturbed areas will be undertaken with site indigenous species. Hydro-seeding will be implemented if the establishment of natural occurring vegetation does not occur within reasonable time. • After completion of the construction phase, a waterway monitoring program will be initiated that ensure that all are adequately rehabilitated.

Environmental Awareness Plan	
Objective / Environmental parameter: Operational Phase	
Risks	**Mitigation measures**
• Contamination of surface and groundwater resources • Contamination of soil • Loss of topsoil • Loss of natural occurring vegetation • Erosion • Unsafe road • Occurrence of veld fires • Harm to animals • Slow regrowth of natural occurring vegetation • Establishment of alien vegetation	• Regular inspections of the construction area, as well as the fuel tanks will be done to identify leakages. These will be attended to immediately in order to limit the occurrence of soil / groundwater pollution. • Soil erosion occurrences will be attended to immediately. • A monitoring system should be implemented to determine the occurrence of any fuel / oil spillages from the fuel tanks / wash-bay during the operational phase in order to ensure that no soil / groundwater pollution occur. • The necessary mitigation measures should be implemented immediately, should any leakages / spills be detected. • Measures will be implemented to minimise the loss of water at any section (including activities associated with the wash-bays) • Regular monitoring will be undertaken to ensure that no soil / groundwater pollution occur due to the activities associated with the operational phase. • An action plan will be available and implemented immediately, in case pollution of soil / groundwater occurs to ensure that it is rectified as soon as possible.

Environmental Awareness Plan	
Objective / Environmental parameter: Decommissioning / Closure	
Risks	**Mitigation measures**
• Contamination of surface and groundwater resources • Contamination of soil • Loss of topsoil • Loss of natural occurring vegetation • Erosion • Unsafe road • Occurrence of veld fires • Harm to animals • Slow regrowth of natural occurring vegetation • Establishment of alien vegetation	• It is not anticipated that the proposed project will cease in the nearby future. However, if decommissioning is decided upon, a rehabilitation plan will be developed and submitted for approval. The end-use of the area will be kept in mind during the compilation of the rehabilitation plan. • Decommissioning of the storage tanks and associated infrastructure will involve sampling the soil at the locations and analysing it for potential contamination, remediation of the soils if required and the rehabilitation of areas that have been disturbed.

Environmental Awareness Plan Objective / Environmental parameter: Compliance and Monitoring	
Risks	**Mitigation measures**
• Contamination of surface and groundwater resources • Contamination of soil • Loss of topsoil • Loss of natural occurring vegetation • Erosion • Unsafe road • Occurrence of veld fires • Harm to animals • Slow regrowth of natural occurring vegetation • Establishment of alien vegetation • Undertaking of unauthorised activities • Non-compliance to EMPr / EA / DWS Authorisation	• The applicant will ensure that the contractors adhere to the recommendations of the EMPr and conditions of the Environmental Authorisation during construction. • An Environmental Control Officer (ECO) will be appointed to monitor the construction phase. Note that the ECO may be appointed separately or can be part of the contractor's team. • Regular monitoring and / or spot inspections at least every fortnight during the construction phase is recommended. • Inspections should be documented and any shortcomings addressed immediately. • An independent ECO will be appointed to monitor the construction phase. A report will be provided to the contractor upon completion thereof. The findings thereof should be made available to DESTEA, should it be requested. • Any emergency or unforeseen impact will be reported to the relevant environmental department within 24 hours after identification for telephonic approval and will be confirmed in writing. • During the operational phase the fuel tanks and associated infrastructure must be routinely audited and maintenance schedule adjusted accordingly in order to prevent leaking. • Material Safety Data Sheets (MSDS) should be available on site. Where possible and available, MSDS should include information on ecological impacts and measures to minimize negative environmental impacts during accidental releases or escapes.

APPENDIX H9

Stormwater Plan

STORMWATER MANAGEMENT PLAN

The proposed construction of a diesel depot on Portion 1 of Plot 42, Estoire, Bloemfontein

Location:	Portion 1 of Plot 42, Estoire, Bloemfontein, Free State
Applicant:	Mack's Petroleum (PTY) LTD
Competent Authority:	The Free State Department of Economic, Small Business Development, Tourism and Environmental Affairs (DESTEA)
MDA Ref No:	40813
DESTEA Ref No:	EMS/27,4/20/02
NEAS Ref No:	FSP/EIA/0000324/2020
Report Date:	September 2020

mda Town & Regional Planners, Environmental & Development Consultants

Physical Address: 9 Barnes Street, Westdene, Bloemfontein, 9301
Postal Address: P.O. Box 100982, Brandhof, 9324
Tel: 051 4471583, Fax: 051 448 9839
E-mail: admin@mdagroup.co.za

1. Project description

The proposed project entails the construction / development of a fuel depot with ancillary amenities, including a wash bay on Portion 1 of Plot 42, Sand du Plessis Avenue, Estoire Small Holdings, Bloemfontein.

The storage tanks will be above ground of nature. The above ground tanks will be bunded to carry at least 110% of the total volume of fuel to be kept in the tanks. It is proposed that the following above ground tanks be installed during various phases:
Phase 1: 1 x 79 000ℓ (existing)
Phase 2: 5 x 83 000 ℓ
Phase 3: 5+ x 83 000 ℓ

Please refer to the map in Appendix A of the Environmental Impact Assessment Report for an indication on the locality of the proposed activities.

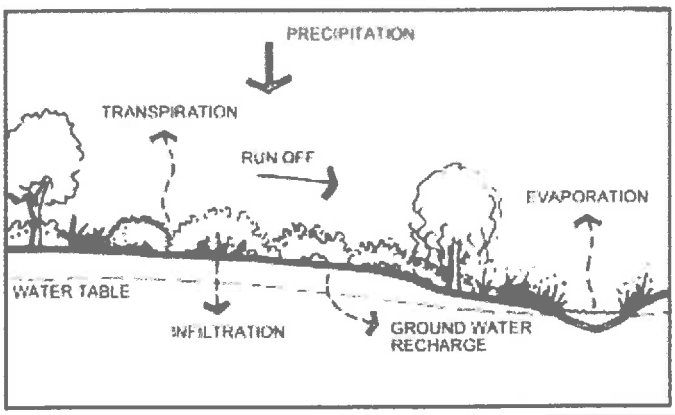
2. Stormwater Management Objectives

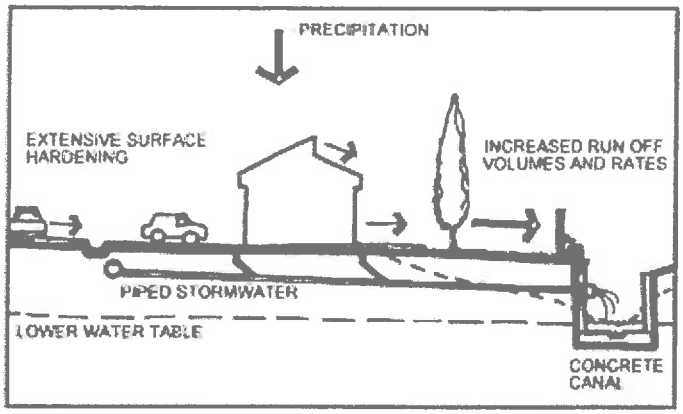
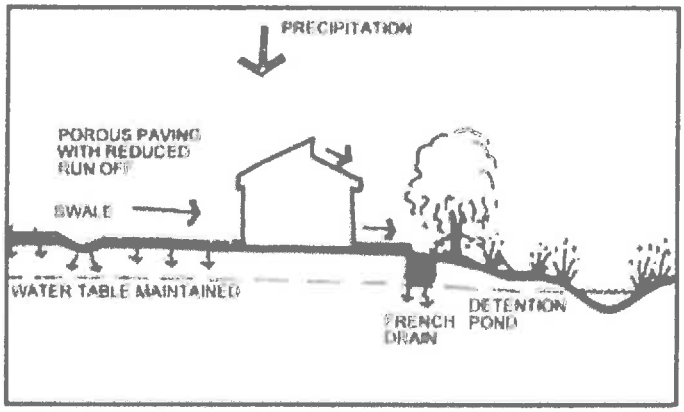
The main objective of the stormwater management plan is to minimise the effect of the proposed project on the environment. This objective can be divided into the following sections:

2.1 Minimising effect of proposed project on environment

The aim of the stormwater management plan is to minimise the effect of the proposed project on the environment (Figure 1).

Figure 1: Indication of effect of stormwater management in a developed area

Nr	Description	Drawing
1	Natural Environment	

2	Developed Area, without sufficient stormwater mitigation measures being implemented	
3	Developed Area, with sufficient stormwater mitigation measures being implemented	

2.2 Minimalize the possibility of flooding

The minimisation of the possibility of flooding remains a key objective of any stormwater management system. However the challenge when contemplating design of stormwater management systems is to consider the following:

- To mimic pre-development responses to storms.
- To reduce the volume of runoff by promoting infiltration.
- To reduce the peak flows and increase the time-to-peak through detaining the runoff and releasing it at a gradual rate.
- Where necessary, to construct means to contain flood waters and safely convey them out of the urban area.

2.3 Protection of Receiving Water Bodies

The receiving water body is not necessarily the system into which stormwater is discharged directly, but can also be a natural system located further downstream in the catchment. Every endeavour should be made to achieve the following as far as possible:

- Maintain natural flow regimes and seasonality
- Prevent deterioration in water quality
- Prevent erosion or sedimentation of natural wetlands or rivers.
- Preserve natural river channels, wetlands and vegetation, and preclude engineering interventions that may alter their physical and ecological characteristics.

The need to design appropriate stormwater management systems for new developments should be seen as an opportunity to preserve or, if possible, improve natural freshwater ecosystems that have suffered degradation as a result of past activities, and in some cases to create additional freshwater habitats that will contribute to the availability of appropriate, high quality river and wetland habitat that mimics the natural condition.

2.4 Promote Multi-Functional Use of Stormwater Management Systems

Resources such as land and water are becoming increasingly scarce and multiple uses of these must be strived for. Stormwater systems provide a wide range of opportunities for multi-functionality. These can have significant implications on:

- The initial and long term costs of development (e.g. Instead of constructing a detention pond and a sports field, these uses could be combined)
- The quality of the natural and urban environment [e.g. the pressure of private development requirements on land for public land use, conservation, etc. can be alleviated by combining compatible land uses such as conservation, recreation and stormwater systems (including wetlands, marshes, dams and rivers) enabling an improved natural and urban environment]
- Maintenance efficiency (e.g. instead of meeting the maintenance requirements of stormwater systems and public open space separately, they could be combined and could include walking/bicycle trails and parks).

2.5 Development of Sustainable Environments

The long-term involvement with the project and consideration of the sustainability of the stormwater management system that is to be implemented should be kept in mind. All relevant factors that will impact on

future operation and maintenance should be taken into account. Environmental policies such as promoting the use of locally indigenous vegetation in planting programmes will also reduce the long-term maintenance requirements of the development.

3. Stormwater Planning Regarding the Proposed Project

Adequate planning is crucial to the success of the project as a whole.

3.1. Need for Multi-disciplinary Expertise

To maximise opportunities to manage stormwater, the input from various design teams are necessary (Table 1).

Table 1. Indication of the role that various team members play

No	Team member		Role
1	Civil Engineer		An engineer skilled in the design of stormwater systems should determine runoff flows for the required recurrence intervals and proposed land uses and design appropriate measures to attenuate peak flows and safely convey the runoff.
2	Environmental Consultant		Alert the engineer at the conceptual stage of the development to crucial aspects of the environment, which are fulfilling an important role with respect to stormwater and should be taken into consideration, as well as opportunities for enhancement or rehabilitation of existing natural features.
3	If required	Freshwater Ecologist	Provide insight regarding the functioning of natural rivers, streams and wetlands and advice regarding the ecological aspects of the design of the components of the system, including water quality enhancement and the land needed for the system to function.
		Landscape Architect	Provide a holistic site analysis of the existing natural and man-made landscape and advice on the opportunities, constraints and implications of the site on the development planning and design.

3.2. Incorporation of Existing Information into Planning Stage

The following information (where relevant) should be investigated, during the planning stage and used to feed into more detailed site assessment:

- Catchment area in which the site is located
- Catchment or river management plans (overall management objectives and recommended key management actions with respect to runoff quantity, quality and other associated environmental and social issues, where such plans exist for the catchment in question, must be met in the design stage)
- Stormwater management master plan (identifies bulk infrastructure, including stormwater flow routes, required within developing areas and may identify particular issues such as pollution which must be addressed at a local level. The existence of a stormwater management master plan which covers the area to be developed should be established and its recommendations applied to the design.
- Existing reports relating to the sensitivity of known wetlands / rivers / other natural ecosystems on or associated with the study area.

Interdependencies exist between the various water related services such as water supply, sanitation and stormwater management. Thus, consideration of the impact of effluent discharges into or water abstraction from stormwater management systems should be taken into account.

3.3. Site Analysis

The physical characteristics of the site reflect the existing course of runoff and stormwater. Working with the natural environment and environmental processes has been found to be safer, more sustainable and easier to maintain in the long term, than more traditional engineering approaches aimed at controlling these processes.

On sites that have been substantially disturbed, consideration should be made of what the natural drainage and runoff conditions would have been, as well as the existing situation. This will enable potential problems, and opportunities, to be identified.

3.3.1. Topography

The consideration of various topographical factors is important for the compilation of a stormwater management plan, due to the following:

- Gradients dictate the direction of flow and runoff/drainage routes can be plotted over land, identifying areas of ponding and concentration of loads
- In some areas which are very flat, earthworks may be required to provide sufficient grade for drainage
- Topography influences the potential for erosion to occur
- Topography informs the feasibility of different locations for stormwater routes, outlets and treatment areas; the main stormwater routes should be located along natural drainage routes
- In ecological terms, different habitats, some of higher conservation value than others, are frequently associated with changes in topography
- From an environmental and stormwater management perspective, as the slope increases, erf sizes should also increase to prevent excessive run-off and potential erosion
- Road and planning layouts should also reflect the topography of an area, to enable integrated stormwater design and management
- The commercial (and aesthetic) value of different sections of a development area is also frequently derived from different topographical characteristics.

3.3.2. Geology, Soils and Groundwater

The infiltration potential of the site is mostly determined by the geology, soil and groundwater conditions of the area. The following factors should be considered, where possible:

- Soil types affect surface permeability and hence rate of runoff
- The mapping of geology and soils will indicate areas of potential groundwater recharge
- Geology and soils influence the potential for erosion to occur
- Soil types should be identified, along with the characteristics of the different soils, such as levels of infiltration, permeability and their water-bearing capacity
- The presence of contaminated soils, which may pose a threat to surface and groundwater quality should be identified and plotted
- Areas of high groundwater levels can limit the possibilities and/or desirability of groundwater recharge and filtration methods.
- It should be noted that large-scale removal of certain vegetation types, such as Port Jackson (Acacia saligna) and Bluegums (Eucalyptus sp.), that consume large volumes of water, might significantly raise groundwater levels

- Need to determine seasonal and longer term trends in groundwater level fluctuation
- Soil types indicate the likely occurrence of particular plant communities, some of which may play a role in the stormwater management plan
- Assessing soils can also indicate the presence of both existing and even historic wetlands
- Seasonal variation of groundwater levels should be taken into account
- The geology and soils of a site will inform the feasibility of different locations for stormwater treatment areas and the potential for groundwater recharge
- Different habitats (some with high conservation value) are associated with specific geological features and soils

3.3.3. Climate

The following climatic factors should be considered, where necessary:

- Storm rainfall parameters are major design factors and must be carefully determined
- The general climatic characteristics of an area will also impact on the site and stormwater systems implemented, i.e. whether the site is generally waterlogged or dry and if evaporation levels are high or low
- Microclimate conditions can inform the spatial layout of water treatment and attenuation, particularly those associated with specific planting and multifunctional uses

3.3.4. Hydrology

It is essential, for successful, sustainable and integrated stormwater management, that the existing and/or natural hydrological response and functions of the site are understood. The following factors should be considered:

- The natural drainage that was characteristic of the development area, to the extent that this is possible, should be determined and both the irreversible as well as less permanent changes that have taken place should be identified
- The hydrology of the development area is a function of much of the other data, which is described under the Site Analysis section.

3.3.5. Cultural and Historical Landscapes and Archaeological Sites

Areas, routes, vegetation and landmarks that have a cultural and/or historical use or significance should be identified. Development and stormwater planning should avoid disturbing these areas where possible. Where possible they should generally be incorporated within the public open space of a development. This contributes a further function to the public open space system, and should be integrated into a network of public open space.

3.4. Development Requirements

The public open space and pedestrian access requirements of a development should be incorporated into the stormwater management planning of the site. The integration of public open space and access requirements with the spatial requirements of stormwater management not only reduces the conflict of pressure on land, but also enables the amalgamation of maintenance requirements, and maximises the use of resources. The following factors should be considered (where necessary):

- Land use planning should be done in relation to the natural context and characteristics of the site. The appropriate placement of land uses will enhance the multi-functionality of the stormwater systems and their use as an amenity by residents in the area.
- Innovative opportunities exist for future stormwater management systems to link-up and add value to educational initiatives (outdoor classroom), ownership (friends groups adopting the system), and water saving (re-use of stormwater/treated effluent for irrigation).
- These opportunities are also area specific and need to be identified up front, rather than as a nice-to-have-after-thought
- The need for a safe environment must be taken into account (e.g. avoid of potential hiding places for criminal elements; do not create unnecessary hazards in the selection of stormwater management options).
- The cost of stormwater implementation, management and maintenance, as well as flood risk, can be greatly reduced by identifying, retaining and enhancing the natural areas along which runoff and natural habitat retain ecological integrity. The advantages of this approach are not limited to stormwater, but can increase the visual, amenity and ecological value of a development.

3.5. Site Planning

3.5.1. Analysis

The developer should take the information stipulated in Section 2.3 into consideration during the Site Analysis Process.

3.5.2. Conceptual Layout

A general concept plan for the site layout should be developed, taking into account the legal and physical aspects of the site as developed through the site analysis process.

3.6. Design Phase

3.6.1. Appropriate Stormwater Management Facilities and Techniques associated with the project

Various stormwater management facilities and techniques were evaluated in terms of engineering, ecological, health, safety, aesthetic, social, construction and maintenance design objectives.

Various facilities and techniques may be utilised to manage stormwater runoff from the development.

3.6.2. Conveyance

Conveyance can be summarised as the use of natural or artificial channels, natural or artificial wetlands or pipes and culverts for stormwater conveyance as well as the prevention of erosion.

In general terms, the developer should consider the following aspects when selecting designs for stormwater conveyance:

- The slopes of the development area – stormwater design on steep slopes will need to incorporate methods for reducing erosion.
- Soil type and stability in the development area – the former will affect infiltration rates, as well as the potential for establishment of different kinds of plant communities in unlined conveyance structures; the latter will affect the degree of stabilisation that may be necessary.

- Seasonal changes in water table height – groundwater should not be exposed by unlined conveyance structures during summer, as this will promote drainage of the groundwater resource; infiltration capacity will be reduced if the water table is above an unlined channel base during winter.
- The cost of land – where land is at a premium, use of large areas for stormwater conveyance may be prohibitively expensive. Nevertheless, the increase in aesthetic and other forms of amenity value that may be gained from sensitive and imaginative stormwater designs may make the use of such space more economically feasible.
- The anticipated quality of stormwater runoff – severely polluted water may constitute a health hazard to downstream residents and an ecological hazard to downstream aquatic ecosystems. Consideration should be given to the conveyance of such water off-site, and directly to water purification works, at least during low-flow periods when water quality is likely to be most impacted.
- Presence of natural water bodies that would lend themselves to the conveyance of stormwater
  - Habitat integrity, priority ranking and/or ecological importance and sensitivity of the system should be considered
  - Sensitive systems should be protected from, rather than incorporated into stormwater conveyance design.
- The volume of expected stormwater runoff, during within-year flood events, and during larger storm events.
- The availability of open space for stormwater conveyance – large areas of open public or private space often lend themselves to the creation of wide, artificial waterways, which may also have ecological, recreational and aesthetic value in addition to providing a stormwater function.
- The presence of litter and sediment which would result in blockages.

Erosion is unfortunately often associated with development as areas become disturbed or as stormwater runoff is concentrated at outlets. In order avoid these problems, options such as stabilisation, energy dissipation and the design of stormwater management systems, which do not concentrate flows, are recommended. A number of structures incorporated into stormwater design play a role in the dissipation of energy required to prevent erosion at outlet and inlet points, and at various points in different conveyance structures. This section provides brief commentary on the ecological, engineering and aesthetic function of each of these.

Soil which has been disturbed or from which the vegetation has been removed, should be stabilised to prevent erosion due to wind or runoff. Such erosion could cause the stormwater system to block, thereby resulting in the flooding of properties. Stabilisation would be short term, for the duration of the construction phase, followed by long term on completion of construction. Particular care should be taken of areas where development will not take place immediately on completion of the construction phase, e.g. wide verges in the road reserve which have been acquired to accommodate future road widening, or erven reserved for unspecified local authority use.

3.7. Construction

3.7.1. Civil Engineering Specifications

All materials and workmanship should comply with the SABS Specifications.

3.7.2. Environmental Management Programme

Please refer to Appendix G of the Environmental Impact Assessment Report for a copy of the EMPr.

3.7.3. Protection of Stormwater Systems during the Construction Phase

The proposed construction activities will be undertaken in the dry season (winter months), where possible in order to limit impacts on the flow of stormwater. The above will also be included in the documentation to the contractor.

3.7.4. Vegetation and Stabilisation

Structures that rely on infiltration for their efficacy should not come into operation until their runoff areas have been stabilised, following construction. This will prevent the need for early and costly maintenance of structures.

If stabilisation by planting is envisaged, plants should be established before the onset of the winter rains. A phased approach to construction should be considered, where the extent of the water course is such that planting of the whole area will take too long for stabilisation to be effective, or where construction activities are likely to take longer than the period between the end of the wet season and the end of the dry season, when planting should take place.

In some cases, delays in the design or tender stages of a project result in delaying construction such that plants are unlikely to be established before the start of the rainy season. Planting during the rainy season is likely to result in the costly loss of plants, due to washout, as well as the erosion of banks, often resulting in the destruction of careful landscaping of bank slopes and profiles. In such cases, it is suggested that planting be delayed until after the end of the rainy season – either until spring, or until the following autumn. Planting in late spring would allow a longer period for the establishment of plants before the next rainy season. However, for all zones except for permanently wetted zones, frequent irrigation would be necessary to ensure the survival of the plants over summer.

Delays in planting are likely to have cost implications for the project as a whole: survival of pre-ordered, potted plants is often not good over a whole year; in addition, regarding and shaping of eroded banks may be necessary. Nevertheless, it should also be noted that there are advantages to such delays in planting – for one thing, it allows water levels and rates of flow to be observed over one year, and these observations can be used to guide plant zonation.

It is strongly recommended that any planting programmes carried out in stormwater management systems make use of locally indigenous plant species. Indigenous species tend to require less costly nurturing than do exotics. Moreover, they are often less prone to disease and, from an ecological perspective, can also provide areas of indigenous habitat, potentially linking areas of natural indigenous habitat, across the development area.

4. Stormwater Management Plan (Construction phase)

Given the project and site information as listed in the sections above it is possible to compile a Storm Water Management Plan in order to manage and limit possible environmental, surface and groundwater impacts associated with stormwater runoff.

4.1. Potential Pollution sources

The areas and activities that require particular attention with regard to the potential negative impacts of uncontrolled stormwater runoff need to be

identified. The potential pollution sources related to the proposed project can be listed as follows:

- Construction base camp
- Stockpile area
- Trench excavation
- Concrete mixing

4.2. Preventative measures and stormwater management tools

The following preventative measures and Management tools can be implemented in order to minimise and prevent the negative effects of storm water impacts for the identified pollution sources as well as other project related activities.

4.3. General preventative measures and stormwater management tools during the construction phase

- The applicant will ensure that the contractors adhere to the recommendations of the of the EMPr as well as conditions set out in the Environmental Authorisation during construction
- An Environmental Control Officer (ECO) will be appointed to monitor the entire construction phase. Note that the ECO can be appointed independently or as part of the contractor's team.
- Regular monitoring and / or spot inspections must be conducted. It is recommended that the above mentioned monitoring / spot inspections occur at least every fortnight during the construction phase.
- Inspections must be documented and any shortcomings must be addressed immediately.
- An independent ECO will be appointed to monitor the construction phase. A report will be provided to the contractor upon completion thereof. This report and its findings should be made available to the environmental department if requested.

4.4. Construction base camp

- Proper sanitation, portable water and waste facilities must be in place before construction activities commence.
- Care must be taken to prevent any unnecessary damage to vegetation near construction base camp and any other construction activities.
- Potable water must be made available to workers on a daily basis.

- Caution must be taken to ensure that no construction materials are stored or dumped within 32 meters of a watercourse or buffer zones.
- Emergency plans must be available in case of any spillages into or near water resources.
- All chemicals used during the development, including fuel for the construction vehicles, will be stored in a proper storeroom or protected area to prevent pollution.
- Vehicles will be serviced at designated areas. No oil, diesel or other chemicals may be spilled or discharged anywhere.
- Where applicable, the contractors will ensure that all relevant national, regional and local legislation regarding storage, transport, use and disposal of petroleum, chemical, harmful or hazardous substances and materials are adhered to, where necessary.
- Cement and concrete mixing, if applicable, will only take place within the construction site. No concrete will be mixed directly on the ground.
- All environmental problems occurring on the site such will be reported to the ECO. The ECO should implement best practices to rectify the impacts thereof on the environment.
- The contractor is responsible for the removal of construction waste.
- Construction activities will be limited to designated construction areas to prevent peripheral impacts on surrounding natural habitats. Construction vehicles will also keep to constructed roads where possible, so that natural vegetation is not destroyed unnecessarily.
- All human movement and activities will be contained within designated construction areas in order to prevent peripheral impacts on surrounding natural habitat.
- The area where the construction base camp will be set out should be flat in terms of surface and not situated within 32meters from existing water courses.
- A temporary impervious surface should be provided where equipment and/or any hazardous materials (cement, lime, oil and fuel) can be stored, handled and used.
- In the event of any spillage incident the spillage should be cleaned, removed and discarded at the nearest authorised disposal facility.
- Chemical toilets must be serviced and cleaned regularly by the contracted entity.
- All and any waste generated by the construction workers must be disposed of in bins provided, these bins should be emptied and taken to the nearest applicable disposal facility on a regular basis.

4.5. Stockpile area

- Removed topsoil will be stockpiled in an area where it will not be disturbed by vehicles.
- Stockpiled material will be protected from washing away during rainstorms. For example, one layer of bricks or stones can be placed around the stockpiled material.
- On-site contractors are responsible for maintaining stockpiles.
- Weather forecasts from the South African Weather Bureau of up to three days in advance must be monitored on a daily basis in order to avoid exposure of soil, construction works or other harmful materials during a possible storm event.
- Weather forecasts must also be used as a tool to ensure that appropriate actions are taken to avoid the runoff/ erosion of topsoil or other stockpiled materials.
- The temporary stockpiling of soils or any other material should preferably be stored on flat surfaces, in flat topped mounds with side slopes not exceeding a 1:2 slope.
- The stockpiling of soils or other materials should occur more than 32meters from a water course on a relative flat surface.
- In the event of a surplus material or material unsuitable for backfilling however designated to remain onsite for landscaping, shall as early as possible be placed in its permanent position, be covered with top soil and vegetated.
- Stockpiled material will be placed on the cleared areas once construction is completed. Re-spreading of topsoil is preferably to be done to a maximum of 10 cm, depending on the natural depth.
- An alien control and monitoring programme will be developed starting during the construction phase and will be carried over into the operational phase.
- Any proclaimed weed or alien species that germinates during the contract period will be cleared by hand / approved chemicals before flowering thereof.
- Imported fill material will be monitored during and after construction for the presence of any alien species. Any such species will be removed immediately.

4.6. Trench Excavation

- Infilling, excavation, drainage and hardening of surfaces will not occur unnecessarily in water ways (i.e. permanent, seasonal or temporary) water courses or within 32 meters of them. The 32 meter buffer zone

should be extended in cases where slope in combination with rainfall can potentially provide conditions for the transportation and deposition of materials within the applicable water resource.
- The total depth of excavation will be kept to a minimum, where possible.
- All trenches should be backfilled as soon as possible.
- Trenching shall not proceed unreasonably far ahead of pipe laying (if any) - especially in cases where a steep gradient exists.
- The time period for the construction or associated activities within and close proximity of streams should be kept to a minimum.
- Temporary mounds or sandbags shall be placed along the route of all backfilled trenches in order to prevent washout.

4.7. Mixing of concrete

- Cement mixing should take place on impermeable liners.
- The cleaning of cement mixing and related equipment will be conducted using proper cleaning trays.

4.8. Other activities related to the project

- Site clearance:
  - Vegetation should not be stripped for the entire construction site at project commencement.
  - Phased vegetation clearance as the project continues is advised.

- Topsoil strip:
  - Should only commence on areas where immediate work will commence.
  - The extent of these areas should be limited to a minimum and only commence as work progresses to new areas.
  - The period of time between completion of topsoil removal and the commencement of earthworks should be kept at a minimum.
  - The topsoil and seedbank should be stripped, and stockpiled separately and protected against weed infestation and erosion
  - Topsoil should be replaced on top of the soil surface from which it was removed as soon as possible.

5. Stormwater Management Plan (Operational phase)

It is not anticipated that the project should pose further negative potential stormwater impacts after construction, however the following Preventative

measures and stormwater management tools should be implemented after the construction phase:

- After the completion of the construction phase a water way monitoring programme will be initiated to ensure the entire area is adequately rehabilitated.
- Following the completion of construction of all infrastructures, the area might be susceptible to erosion due to certain disturbances, areas should be evaluated post construction and determined.
- The areas found to be susceptible to erosion should be equipped with gabions or other geotextiles in order to prevent extensive erosion.
- Following the cessation of construction activities that took place in streams, streams should be inspected regularly for erosion and the necessary mitigation should be applied in order to rectify the situation and prevent further erosion.
- Any and/ all areas that have been compacted due to construction activities must be ripped and rehabilitated to its original state.
- After the cessation of construction related activities the area must be rehabilitated and transformed to its original state.
- The re-establishment of natural occurring vegetation should be monitored. Hydro- seeding should be implemented if natural re-establishment methods fail.
- After construction has ceased all construction materials should be removed from site.
- Regular inspections of the site should be conducted to identify leakages, poor vegetation regrowth and or any erosion occurrences. Soil erosion occurrences will be attended to immediately.

6. Summary of stormwater mitigation measures to be implemented

- Prevent concentration of stormwater flow at any point where the ground is susceptible to erosion.
- Reduce stormwater flows as far as possible by the effective use of attenuating devices (such as swales, berms, silt fences). As construction progresses, the stormwater control measures are to be monitored and adjusted to ensure complete erosion and pollution control at all times.
- Minimse the area of exposure of bare soils to minimse the erosive forces of wind, water and all forms of traffic.
- Ensure that development does not increase the rate of stormwater flow above that which the natural ground can safely accommodate.
- Ensure that all stormwater control works are constructed in a safe and aesthetic manner in keeping with the overall development.

- Design culvert inlet structures to ensure that the capacity of the culvert does not exceed the pre-development stormwater flow at that point.
- Design outlet culvert structures to dissipate flow energy. Any unlined downstream channel must be adequately protected against soil erosion.
- Permits will be obtained for the removal / transplantation of protected species (if any) that are located within the proposed road route where no alternatives are possible. Care will be taken to prevent unnecessary damage to vegetation near to construction activities.
- The necessary Environmental Authorisation will be obtained before any activities listed in the Regulations (Regulations 982, 983, 984 and / or 985 of 2014) are undertaken.
- Proper sanitation, potable water and waste facilities will be in place before construction activities are undertaken.
- Care will be taken to prevent unnecessary damage to vegetation near to construction activities.
- Potable water will be made available daily to workers on site.
- No activities will be undertaken within 32 m of a watercourse / within the 1:100 year floodline, without the necessary authorisations (for example from DESTEA and DWS).
- Emergency plans will be in place in case of spillages into the water resource(s).
- All no-go areas will be demarcated under guidance of the Environmental Control Officer (ECO).
- All chemicals used during the development, including fuel for the construction vehicles, will be stored in a proper storeroom or protected area to prevent pollution.
- Vehicles will be serviced at designated areas. No oil, diesel or other chemicals may be spilled or discharged anywhere.
- Where applicable, the contractors will ensure that all relevant national, regional and local legislation regarding storage, transport, use and disposal of petroleum, chemical, harmful or hazardous substances and materials are adhered to, where necessary.
- Cement and concrete mixing, if applicable, will only take place within the construction site. No concrete will be mixed directly on the ground.
- All environmental problems occurring on the site such will be reported to the ECO. The ECO should implement best practices to rectify the impacts thereof on the environment.
- The contractor is responsible for the removal of construction waste.
- Construction activities will be limited to designated construction areas to prevent peripheral impacts on surrounding natural habitats. Construction

vehicles will also keep to constructed roads where possible, so that natural vegetation is not destroyed unnecessarily.

- All human movement and activities will be contained within designated construction areas in order to prevent peripheral impacts on surrounding natural habitat.
- Erosion management is important. Rehabilitation of disturbed areas will be undertaken to help the recovery of the vegetation.
- Removed topsoil will be stockpiled in an area where it will not be disturbed by vehicles.
- Stockpiled material will be protected from washing away during rainstorms. For example, one layer of bricks or stones can be placed around the stockpiled material.
- Stockpiled material will be placed on the cleared areas once construction is completed. Re-spreading of topsoil is preferably to be done to a maximum of 10 cm, depending on the natural depth.
- An alien control and monitoring programme will be developed starting during the construction phase and will be carried over into the operational phase.
- Any proclaimed weed or alien species that germinates during the contract period will be cleared by hand / approved chemicals before flowering thereof.
- Imported fill material will be monitored during and after construction for the presence of any alien species. Any such species will be removed immediately.
- The total depth of excavation will be kept to a minimum, where possible.
- Species, especially grasses, trees and shrubs occurring in the region will be used to rehabilitate disturbed areas.
- An alien plant control and monitoring programme will be implemented.
- Re-vegetation of disturbed areas will be undertaken with site indigenous species.
- Soil erosion occurrences will be attended to immediately.
- The applicant will ensure that the contractors adhere to the recommendations of the EMPr and conditions of the Environmental Authorisation during construction.
- An Environmental Control Officer (ECO) will be appointed to monitor the construction phase. Note that the ECO may be appointed separately or can be part of the contractor's team.
- Regular monitoring and / or spot inspections at least every two weeks during the construction phase is recommended.
- Inspections should be documented and any shortcomings addressed immediately.

- An independent ECO will be appointed to monitor the construction phase. A report will be provided to the contractor upon completion thereof. The findings thereof should be made available to DESTEA, should it be requested.
- The drainage system for the site should be designed to specifications that can adequately deal with a 1:50 year intensity rainfall event or more to ensure sufficient capacity for carrying storm waters around and away from infrastructure.
- Procedures for storm water flow through a project site need to take into consideration both normal operating practice and special circumstances. Special circumstances in this case typically include severe rainfall events.

APPENDIX H10

Public Participation

APPENDIX D_1

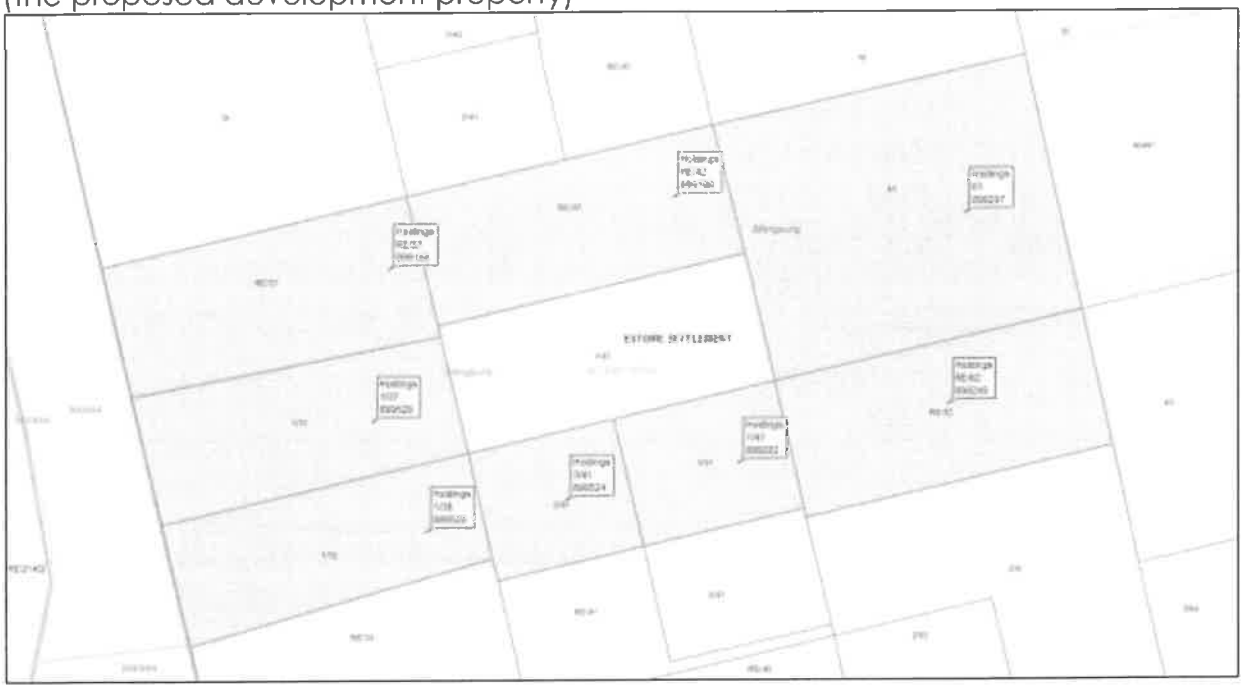
List of identified possible interested and affected parties

The proposed construction of a Fuel Depot, Portion 1 of Plot 42, Estoire, Bloemfontein Table 1: List of identified possible interested and / or affected parties	
Authorities & Stakeholders	
Organization	Contact person and contact detail
Free State Department of Economic Development, Tourism and Environmental Affairs	Mrs. Grace Mkhosana Tel: 051 400 4843 Fax: 051 400 4842 Private Bag X20801 Bloemfontein 9300 Mkhosana@detea.fs.gov.za
The Municipal Ward Councillor: Ward 47	Ward Councillor, Ward 47 Clr John Matthews De Bruin 0603461410 johndebruin38@gmail.com Delivered by hand at the DA Offices
Mangaung Metro Municipality City Manager	The City Manager P.O. Box 3704 Bloemfontein 9300
Mangaung Metro Municipality: Enviornmental Division	Me. Mpolokeng Kolobe P.O. Box 3704 Bloemfontein 9300
Mangaung Metro Municipality: Planning Division	Collin Dihemo P.O. Box 3704 Bloemfontein 9300
SAHRA	South African Heritage Resources Agency (SAHRA) Head Office 111 Harrington Street CAPE TOWN 8001
FSHRA	Ntando PZ Mbatha Heritage Coordinator Corner Henry and East Burger Street Department of Sport Arts Culture and Recreation Office 204 Bloemfontein 9301
Department of Police, Roads and Transport	Hannes Maree Room 106, Medfontein Building, 155 St Andrew Street P.O. Box 119, Bloemfontein, 9300 MareeH@freetrans.gov.za

The proposed construction of a Fuel Depot, Portion 1 of Plot 42, Estoire, Bloemfontein Table 1: List of identified possible interested and / or affected parties	
	F. van Heerden Medfontein Building, 155 St Andrew Street P.O. Box 119, Bloemfontein, 9300 fabiavanheerden@gmail.com 0514098280
Department of Water and Sanitation	Mr Masia Mgwambani The Director: Water Regulation in the Free State Mr. W Grobler Private Bag X528 Bloemfontein 9300 mgwambanim@dwaf.gov.za
Adjacent Landowners	
Holdings RE/37, Estoire	Wiehanhn Eiedomme Boland Pty Private Bag x34 Suite 203 Somerset –West 7103
Holdings 1/37, Estoire	Vodacom P.O. Box 100958 Brandhof 9324
Holdings 1/38, Estoire	Mile Investments P.O. Box 28966 Danhof 9310
Holdings 3/41, Estoire	TNT Trust / Dumani Builders 21 Sand du Plessis Estoire Bloemfontein 9323 freestate@domani.co.za
Holdings 1/41, Estoire	TNT Trust / Dumani Builders 21 Sand du Plessis Estoire Bloemfontein 9323 freestate@domani.co.za
Holdings RE/62, Estoire	Lougat Property Investments P.O. Box 167 Bedfordview

The proposed construction of a Fuel Depot, Portion 1 of Plot 42, Estoire, Bloemfontein Table 1: List of identified possible interested and / or affected parties	
	2008
Holdings 61, Estoire	BBT Elec & Plumbing cons P.O. Box 2341 Bloemfontein 9300
Holdings RE/42, Estoire	M & J trust 19 Sand du Plessis Estoire Bloemfontein 9323

Map indicating the properties adjacent to Portion 1 of Plot 42, Estoire, Bloemfontein (the proposed development property)



APPENDIX D_2

Proof of notification

Site Notices:

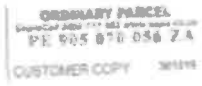
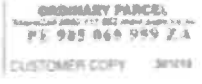
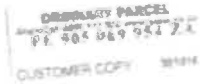
Advert:


www.volksblad.com
OM TE ADVERTEER SKAKEL
F: 051 447 2940
F: 053 831 2330
(Kimberley)
Geklassifiseerd
STERFGEVALLE
STEYN
POTGIETER
WORD RAAKGESIEN!
Skakel
Kim Morgan by
051 404 7825
vir
geklassifiseerde-
of
blad-betrekking-
advertensies
DESLEY
WAARSKUWING
ALLE
ADVERTEERDERS
FNB
Kole se Kersfees

Proof of notification to adjacent landowners:

Proof of postage

mda Initial Notification: 40813

Organization	Contact person and contact detail	Proof of postage
Holdings RE/37, Estoire	Wiehanhn Eiedomme Boland Pty Private Bag x34 Suite 203 Somerset –West 7103	
Holdings 1/37, Estoire	Vodacom P.O. Box 100958 Brandhof 9324	
Holdings 1/38, Estoire	Mile Investments P.O. Box 28966 Danhof 9310	
Holdings RE/62, Estoire	Lougat Property Investments P.O. Box 167 Bedfordview 2008	
Holdings 61, Estoire	BBT Elec & Plumbing cons P.O. Box 2341 Bloemfontein 9300	
Holdings RE/42, Estoire	M & J trust 19 Sand du Plessis Estoire Bloemfontein 9323	

Proof of hand delivery

mda Initial Notification: 40813

Reason for IAP	Contact person and contact detail	Proof of hand delivery
Holdings 3/41, Estoire	TNT Trust Estoire Settlement 41	 15/07/2019
Holdings 1/41, Estoire	TNT Trust Estoire Settlement 41	

APPENDIX D_3

List of registered parties

The proposed construction of a Fuel Depot, Portion 1 of Plot 42, Estoire, Bloemfontein Table 2: List of registered parties		
Authorities & Stakeholders		
Organization	Contact person and contact detail	Comments and Response
The Municipal Ward Councillor: Ward 47	Ward Councillor, Ward 47 Clr John Matthews De Bruin 0603461410 johndebruin38@gmail.com Delivered by hand at the DA Offices	**Comment:** None to date **Response:** Copies of the dScoping and fScoping Reports were forwarded to all registered IAPs.
Mangaung Metro Municipality City Manager	The City Manager Mangaung Metro Municipality P.O. Box 3704 Bloemfontein 9300	**Comment:** None to date **Response: Response:** Copies of the dScoping and fScoping Reports were forwarded to all registered IAPs
Mangaung Metro Municipality: Enviornmental Division	Me. Mpolokeng Kolobe Mangaung Metro Municipality P.O. Box 3704 Bloemfontein 9300	**Comment:** • An EMPr must be compiled and submitted to MMM. • Should any fuel be stored underground in future, the following should be undertaken: - A geohydrological study must be conducted. - Stormwater management plan must be compiled. - All other relevant authorities must be consulted. • An ECO must be appointed • A waste management plan must be compiled and also provide guidance to ensure that domestic, industrial and hazardous wastes are managed at the proposed site in a way that is protective of health, safety and environmental. • Material Safety Data Sheets shall be available on site for all chemicals and hazardous substances to be used on site. It should additionally include (where available) information on

Table 2: List of registered parties

		measures to minimize negative environmental impacts during accidental releases or escapes. • Site and Employees are to be managed in strict accordance with the OHS Act and National building Regulations. A health and safety representative should be appointed if more than 20 employees are employed. • Facility must register with the local Fire Fighters Organization and periodically conducts drill in conjunction with the local fire fighter's unit. • Proposed development must comply with other environmental legislation and requirements that are related to issues such as noise and light pollution, air quality, water use and management, solid waste management and storm water management. **Response:** • An EMPr will be attached to the EIA document (current document). • Please note that a geohydrological study will be required in future, should the applicant decide to construct underground fuel tanks in future. • The EMPr will form part of the Environmental Impact Assessment Report. • It is not anticipated that any fuel will be stored underground. However, should any fuel be stored underground in future, the necessary specialists will assess the site. • And ECO and Health and Safety Officer will be appointed by the contractor during the construction phase of the project. • The necessary environmental legislations and requirements regarding issues such as noise, light,

Table 2: List of registered parties

		air and water pollution will be adhered to. Solid Waste – and Storm Water Management will also be undertaken according to Best Practices. • The proposed facility will register with the Local Fire Fighters Organization. • Copies of the dScoping & fScoping Report were forwarded to all registered IAPs Copies of the following reports were provided to the Registered IAPs: • Draft Scoping • Final Scoping • Draft EIA (current document)
Mangaung Metro Municipality: Planning Division	Mr. Collin Dihemo Mangaung Metro Municipality P.O. Box 3704 Bloemfontein 9300	**Comment:** None to date **Response: Response:** Copies of the dScoping and fScoping Reports were forwarded to all registered IAPs
FSHRA	Ntando PZ Mbatha Heritage Coordinator Corner Henry and East Burger Street Department of Sport Arts Culture and Recreation Office 204 Bloemfontein 9301	**Comment:** None to date **Response: Response:** Copies of the dScoping and fScoping Reports were forwarded to all registered IAPs
SAHRA	South African Heritage Resources Agency (SAHRA) Head Office 111 Harrington Street CAPE TOWN 8001	**Comment:** • Initially mentioned that, as this is a NEMA application the draft BAR must be submitted to the application before the SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit will issue a final comment on it. • After SAHRA reviewed the Final Scoping Report as well as the Recommendations by the Archaeological Specialist, SAHRA commented that it has no objections

		against the proposed development subject to the following conditions - The Draft and Final EIAs must be submitted to SAHRA - Should any objects or archaeological or palaeontological remains be found during construction activities, work must immediately stop in that area and the ECO must be informed. - The ECO must inform SAHRA and contact an archaeologist and / or palaeontologist, depending on the nature of the find, to assess the importance and rescue them if necessary (with the relevant SAHRA permit). No work may resume in the area without the permission from the ECO and SAHRA. - If the newly discovered heritage resource is considered significant, a Phase 2 assessment may be required. A permit from the responsible heritage authority will be required. - A Chance Finds Procedures must be developed for the project to ensure that standard protocols and steps are followed should any heritage and / or fossil resources be uncovered during all phases of the project. These procedures should outline the steps and reporting structure to be followed in the instance that heritage resources are found. This must be included in the Environmental Awareness Plan. • Should the project be granted EA, SAHRA should be notified and all relevant documents be submitted to

		the case file. **Response:** • A Scoping Report uploaded to the SAHRIS website. • The conditions stipulated by SAHRA will be included in the EMPr. Copies of the following reports were provided to the Registered IAPs: • Draft Scoping • Final Scoping • Draft EIA (current document)
Department of Water and Sanitation	Mr Masia Mgwambani The Director: Water Regulation in the Free State Mr. W Grobler Private Bag X528 Bloemfontein 9300	**Comment:** • Bund wall of fuel tanks should be within the capacity to be able to contain spillages • All effluent from the wash bay should be disposed of in a properly constructed drain and must be situated as far as possible away from a watercourse • Only domestic wash waster may be allowed to enter the drain and any effluent containing oil and grease or other industrial substances must be collected in a suitable receptacle and removed from site. • The name of the Hazardous Waste Company to be used for the removal of hazardous material should be provided to DWS. A written agreement between the applicant and the said company should also be forwarded to DWS. • The applicant should ensure that the septic tank is approved and is sited in such a way that it does not cause water or other pollution. Mitigation measures must be in place to prevent contamination of local groundwater and surface water. • The applicant should indicate where the effluent will be discharged after it

		is drained from the septic tank. The applicant should clearly indicate how the septic tanks will be handled and Authorisation for Section 21(g) of the National Water Act (Act 36 of 1998) should be obtained if required. • It is important that any spillages of chemicals are reported to DWS and relevant authorities. • The applicant should ensure that no unacceptable impact on the quality of both surface and groundwater is associated with the proposed project. If pollution of any surface or groundwater occurs, it must be immediately reported to DWS and appropriate mitigation measures must be implemented. • Ensure that all specialist studies form part of the EIA and must be submitted to DWS before construction commences. • All relevant sections and regulation of the National Water Act, 1998 (Act 36 of 1998) regarding water use must be adhered to. Response: • The conditions stipulated by DWS are noted. • The applicant is currently in the process of acquiring an agreement with a hazardous waste removal company for the removal of hazardous waste. More information on the above will be provided in the EIA (current document). • Due to faulty flow of municipal sewerage lines, a 23m^3 underground septic tank was installed in 2009. The applicant currently makes use from a sewerage removal company to remove sewerage on a monthly basis. Copies of the following reports were

Table 2: List of registered parties

		provided to the Registered IAPs: • Draft Scoping • Final Scoping • Draft EIA (current document)
Free State Department of Economic Development, Tourism and Environmental Affairs	Mrs. Grace Mkhosana Tel: 051 400 4843 Fax: 051 400 4842 Private Bag X20801 Bloemfontein 9300 Mkhosana@detea.fs.gov.za	**Comment:** The Scoping Report was accepted by DESTEA. **Response:** Copies of the following reports were provided to the Registered IAPs: • Draft Scoping • Final Scoping • Draft EIA (current document)
Department of Police, Roads and Transport	Hannes Maree Room 106, Medfontein Building, 155 St Andrew Street P.O. Box 119, Bloemfontein, 9300 MareeH@freetrans.gov.za F. van Heerden Medfontein Building, 155 St Andrew Street P.O. Box 119, Bloemfontein, 9300 fabiavanheerden@gmail.com 0514098280	**Comment:** • The provincial tertiary road T4730 will be affected by the proposed project • The Department will formulate comments subsequent to obtaining a site development plan and information on the expected traffic to determine the impact on the provincial road network **Response:** • A proposed layout map (attached as Appendix C of the dScoping Report) was forwarded to the said Department • A Traffic Impact Assessment will be undertaken and the findings thereof will be included in the Environmental Impact Assessment Report (the current document). The said report will be forwarded to all registered IAPs. Copies of the following reports were provided to the Registered IAPs: • Draft Scoping • Final Scoping Draft EIA (current document)
CAA	Lizell Stroh 011 545 1232	**Comment:** After evaluating the site position to the obstacle application form dated 20 May

Table 2: List of registered parties

	Strohl@caa.co.za	2020, in principle the SACAA has no objection, the following conditions and restrictions applies: • Any exterior lighting is restricted to full cut-off lighting 0° above the horizontal plane. • Non-reflecting painting and Materials should be applied to reduce glare and prevent blinding pilots. Kindly note that approval for the construction of cranes, if used, must be obtained 6 weeks prior to construction from this department. This conditional approval is valid for 5 years from the date of this letter. **Response:** • An application was submitted to CAA. Copies of the following reports were provided to the Registered IAPs: • Draft Scoping • Final Scoping Draft EIA (current document)
Holdings RE/37, Estoire	Wiehanhn Eiedomme Boland Pty Private Bag x34 Suite 203 Somerset –West 7103	Please note that no adjacent landowners registered as IAPs for the proposed development.
Holdings 1/37, Estoire	Vodacom P.O. Box 100958 Brandhof 9324	
Holdings 1/38, Estoire	Mile Investments P.O. Box 28966 Danhof 9310	
Holdings RE/62, Estoire	Lougat Property Investments P.O. Box 167	

Table 2: List of registered parties

	Bedfordview 2008
Holdings 61, Estoire	BBT Elec & Plumbing cons P.O. Box 2341 Bloemfontein 9300
Holdings RE/42, Estoire	M & J trust 19 Sand du Plessis Estoire Bloemfontein 9323
Holdings 3/41, Estoire	TNT Trust / Dumani Builders 21 Sand du Plessis Estoire Bloemfontein 9323 freestate@domani.co.za
Holdings 1/41, Estoire	TNT Trust / Dumani Builders 21 Sand du Plessis Estoire Bloemfontein 9323 freestate@domani.co.za

APPENDIX D4

Comments received

CAA

SOUTH AFRICAN CIVIL AVIATION AUTHORITY

Physical Address: Waterfall Park, Bekker Street, Midrand | Postal Address: Private Bag X1, Halfway House, 1685 | Telephone Number: +27 11 545 1232 | Fax Number: +27 11 545 1451 | E-mail Address: obstacles@caa.co.za | Website Address: www.caa.co.za

OBSTACLE APPROVAL

CAA Obstacle ID: CAA_2020_5_135

APPLICANT		OWNER	
Applicant Name	MDA	Owner Name	Mack's Petroleum (PTY) LTD
Contact Person	Neil Devenish	Contact Person	George Myers
Cell Nr	082770 059	Cell Nr	0826811310
Tel Nr	(051) 447 1583	Tel Nr	051 933 93
Email	neil@mdagroup.co.za	Email	airport@mweb.co.za
VAT Nr	4110177195		
Address	9 Barnes Street, Westdene, Bloemfontein	Application Date	2020/05/20 Received Date 2020/05/26
City	Bloemfontein	Application Type	✔ New ☐ Shared ☐ Replacement
Province	Free State	Attachments:	☐ GIS/Google File ☐ Survey Report
Postal Code	9301		☐ Plan/Eng Drawing ☐ Other

DETAILS OF PROPOSED STRUCTURE

Type of Structure	Tank					Construction Start Date	2020/06/03
Site Name	Above Ground Fuel Tanks - Mack's Petrol					Construction End Date	
Site ID	Mack's Petroleum, Estoire						
LAT (Degrees)	29	LAT (Minutes)	6	LAT (Seconds)	41.42	Jib/Guywire (m)	0
LONG (Degrees)	26	LONG (Minutes)	16	LONG (Seconds)	12.5	Datum	WGS84
Site Elevation (m)	1366	Notes				Coord Data Source	Chart/Map Derived
Substructure Height (m)	0.4					Other (specify)	
Superstructure Height (m)	5.5					Elevation Data Source	Chart/Map Derived
Structure Elevation (m)	1371.9					Other (Specify)	

APPROVAL STATUS: CONDITIONALLY APPROVED

Note: 1. Conditional Approval only valid for 5 years from date of signature.
2. Final approval subject to applicant/owner providing 'As-Built' data.

Approval Conditions:
- ✔ No Markings
- ☐ Day Markings
- ☐ Night Markings
- ☐ Day/Night Markings
- ☐ UPS
- ✔ Other/Special

Other/Special Conditions:
Find letter attached

FOR THE SACAA

2020/09/28

SOUTH AFRICAN CIVIL AVIATION AUTHORITY

Physical Address: Ikhaya Lokundiza, Treur Close, Waterfall Park, Bekker Street, Midrand
Postal Address: Private Bag X 73, Halfway House, 1685
Telephone Number: +27 11 545 1000
Fax Number: +27 11 545 1465
E-mail Address: mail@caa.co.za
Website Address: www.caa.co.za
Southern Region Office: PO Box 174, Cape Town International Airport
Tel. Number: +27 21 934 4744
Fax Number: +27 21 934 1326

MDA

9 Barnes Street
Westdene
Bloemfontein
Free State
9301
CA15/2/Bloemfontein

Enquiries: L Stroh
Tel: 011 545 1232
strohl@caa.co.za

28 September 2020

Ref. CAA_2020_5_135

Attention: Neil Devenish

Conditional Approved: for the proposed ground fuel tanks Mack's Petrol, proposed in Bloemfontein.

After evaluating the site position to the obstacle application form dated 20 May 2020, in principle the SACAA has no objection, the following conditions and restrictions applies:

- Any exterior lighting is restricted to full cut-off lighting 0° above the horizontal plane.
- Non-reflecting painting and Materials should be applied to reduce glare and prevent blinding pilots.

Kindly note that approval for the construction of cranes, if used, must be obtained 6 weeks prior to construction from this department.
This conditional approval is valid for 5 years from the date of this letter.

Note that this SACAA letter of no objection does not substitute or replace other approvals which may be required by the applicant.

Yours truly,

Lizell Stroh
Obstacle Inspector
PANS-OPS Section
Air Navigation Services Department
Tel: +27 11 545 1232 | Mobile: +27 083 461 6660
Email: Strohl@caa.co.za| www.caa.co.za

police, roads & transport
Department of
Police, Roads and Transport
FREE STATE PROVINCE

REF: P29/4/172/P6/1/E42
ENQ: Me. F. van Heerden

MDA
P.O. Box 100982
BRANDHOF
9324

For attention: Mr. N. Devinish

DRAFT SCAPING REPORT FOR THE PROPOSED CONSTRUCTION OF A DIESEL DEPOT ON PORTION 1 OF PLOT 42, ESTOIRE, BLOEMFONTEIN

1. Your letter with reference no. 40813 dated 30 October 2019 refers.

2. The Department perused the above mentioned report and it is identified that provincial road tertiary road T4730 is affected.

3. The Department will only formulate comments subsequent to obtaining a site development plan and information on the expected traffic to determine the impact on the provincial road network

4. Should you have any enquiries pertaining to this matter please do not hesitate to contact the Department's Me. F. van Heerden, (Tel: 0664733113 / 0514098280 and/or email fabiavanheerden@gmail.com)

Yours faithfully

DIRECTOR: ROAD ASSET MANAGEMENT SYSTEMS

Date: 4/12/2019

Directorate Road Asset Management Systems

P O Box 119, BLOEMFONTEIN, 9300
Medfontein Building, 1st Floor, 155 St Andrew Street, BLOEMFONTEIN
Tel: 0664733113 Fax: (051) 862757396
E-mail: vanheerdenf@freetrans.gov.za

www.fs.gov.za

40813 Mack's Petroleum

Our Ref:

an agency of the
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001
www.sahra.org.za

Enquiries: Ragna Redelstorff
Tel: +27 (0)21 202 8651
Email: rredelstorff@sahra.org.za
CaseID: 15015

Date: Thursday July 02, 2020
Page No: 1

Final Comment

In terms of Section 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Mack's Petroleum

The proposed construction of a diesel depot on Portion 1 of Plot 42, Estoire, Bloemfontein, Free State

The proposed project entails the construction of a diesel depot on Plot 1/42 Estoire, Bloemfontein, Free State Province. The draft Scoping Report and a Letter of Recommendation for Exemption from heritage studies were submitted with the application.

ROSSOUW, L. 2020. EXEMPTION FROM PHASE 1 HERITAGE IMPACT ASSESSMENT: PROPOSED NEW ABOVEGROUND DIESEL DEPOT ON PLOT 1/42 ESTOIRE, BLOEMFONTEIN FREE STATE PROVINCE.

The proposed area is highly degraded by previous commercial and industrial properties. As a result no historically significant building structures older than 60 years of age are present and potential archaeological impact is considered to be non-existent.

The area is underlain by potentially fossil-bearing sediments of the Adelaide Subgroup (Beaufort Group, Karoo Supergroup), which are capped by superficial sediments made up of residual soils of varying depth that are not considered to be palaeontologically significant in this case.

Recommendations:

The author recommends that the proposed development is exempt from a Phase 1 Heritage Impact Assessment based on the degraded nature of the area, overall depth of the superficial deposits, the low topography terrain and the fact that no subsurface development is planned for this project.

The final Scoping Report, as requested in an interim comment on 08/05/2020, was submitted to the case.

40813 Mack's Petroleum

Our Ref:

an agency of the
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001
www.sahra.org.za

Enquiries: Ragna Redelstorff
Tel: +27 (0)21 202 8651
Email: rredelstorff@sahra.org.za
CaseID: 15015

Date: Thursday July 02, 2020

Final comment

The SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit has reviewed the Letter of Recommendation for Exemption and based on it has no objections against the proposed development subject to the following conditions that must be adhered to and must be incorporated into the EIA and Environmental Management Programme (EMPr) for implementation:

1. The draft and final EIAs must still be submitted to SAHRA.

2. Should any objects of archaeological or palaeontological remains be found during construction activities, work must immediately stop in that area and the Environmental Control Officer (ECO) must be informed.

3. The ECO must inform the South African Heritage Recourse Agency (SAHRA) and contact an archaeologist and/or palaeontologist, depending on the nature of the find, to assess the importance and rescue them if necessary (with the relevant SAHRA permit). No work may be resumed in this area without the permission from the ECO and SAHRA.

4. If the newly discovered heritage resource is considered significant a Phase 2 assessment may be required. A permit from the responsible heritage authority will be needed.

5. A Chance Finds Procedures must be developed for the project to ensure that standard protocols and steps are followed should any heritage and/or fossil resources be uncovered during all phases of the project. These procedures should outline the steps and reporting structure to be followed in the instance that heritage resources are found. This must be included in the Environmental Awareness Plan.

6. Should the project be granted Environmental Authorisation, SAHRA must be notified and all relevant documents submitted to the case file.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

40813 Mack's Petroleum

Our Ref:

an agency of the
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001
www.sahra.org.za

Enquiries: Ragna Redelstorff
Tel: +27 (0)21 202 8651
Email: rredelstorff@sahra.org.za
CaseID: 15015

Date: Thursday July 02, 2020
Page No: 3

Ragna Redelstorff
Heritage Officer
South African Heritage Resources Agency

ADMIN:
Direct URL to case: http://www.sahra.org.za/node/535715
(DESTEA, Ref:)

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.

water & sanitation
Department
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

Enquiries: D Ramuhovhi
Telephone: 051 405 9000
Reference: 16/2/7/C522/D1

MDA
P O Box 100982
BRANDHOF
9324

Dear Sir/Madam

DRAFT BASIC SCOPING REPORT FOR THE PROPOSED CONSTRUCTION OF A DIESEL DEPOT ON PORTION 1 OF PLOT 42, ESTOIRE IN BLOEMFONTEIN

APPLICANT: Mack's Petroleum (PTY) LTD
MDA REF No: 40813

The Department of Water and Sanitation has assessed the submitted Draft Scoping Report for the proposed Construction of a Diesel Depot on Portion 1 of Plot 42, Estoire in Bloemfontein. The project is to construct fuel tanks for the storage of fuel facilities including a wash bay.

- The applicant should ensure that the bund wall of the diesel tank that will be constructed should be within the capacity to be able to contain spillages.
- All effluent water from the wash bay should be disposed of in a properly constructed drain and must be situated as far as possible away from a watercourse.
- Only domestic wash water should be allowed to enter this drain and any effluent containing oil and grease or other industrial substances must be collected in a suitable receptacle and removed from site.
- Page 11 indicates that all the hazardous material will be removed from site by Hazardous Waste Company. The applicant should provide the name of the company that will handle the hazardous waste and also a written agreement between the applicant and the hazardous waste company should be submitted to this Department.
- The report indicates that septic tank will be used for sewage disposal. The applicant should ensure that the septic tanks is approved and is sited in such a way that it does not cause water or other pollution. Mitigation measures must be in place to prevent contamination of local groundwater and surface water.
- The applicant should indicate where the effluent will be discharged after it is drained from the septic tank. However, the applicant should clearly indicate how the septic tanks will be handled and authorization for Section 21 (g) of National Water Act (Act 36 of 1998) should be obtained if required.
- It is important that any spillages of chemicals during the operations are reported to this office and relevant authority.

- The applicant should always ensure that there is no unacceptable impact on the quality of both surface and groundwater in the area. If pollution of any surface or groundwater occurs, it must be immediately reported to this Department and appropriate mitigation measures must be implemented.
- Ensures that all specialist studies form part of the Environmental Impact Assessment (Scoping Report) and must be submitted to this Department before the construction commences.
- All relevant sections and regulation of the National Water Act, 1998 (Act 36 of 1998) regarding water use must be adhered to.

For further enquiries, please do not hesitate to contact D Ramuhovhi at telephone 051 405 9000 or on e-mail: ramuhovhid@dws.gov.za

Yours sincerely,

Dr T Ntili
PROVINCIAL HEAD: FREE STATE
DATE: 25/11/19

Mangaung Metropolitan Municipality

MANGAUNG

DIRECTORATE PLANNING

Our Ref: EIA/02/2020 Your Ref: Diesel depot portion 1 of plot 42 Estoire

Enquiries: M. Ramongalo Date: 21 February 2020

MDA Consultants
P.O Box 100982
Brandhof
9324
Email: admin@mdagroup.co.za

FINAL SCOPING FOR THE PROPOSED CONSTRUCTION OF A DIESEL DEPOT ON PORTION 1 OF THE FARM ESTOIRE, BLOEMFONTEIN.

Reference is made to your report received by this office regarding the above-mentioned application. This office reviewed the report and does not have any objections to the proposed development on portion 1 of the Farm Estoire, on conditions that:

1. A detailed and complete EMPr must be compiled and be submitted with the report. This EMPr must aim to fulfil the requirements in terms of National Environmental Management Act number 107 of 1998 and the Environmental Impact Assessment Regulations 2014 as amended with the following objectives amongst others; it should provide recommendations, indicate actual remediation activities which will be binding on the applicant and to ensure that the operational phases of the project continue within the principles of Integrated Environmental Management System (EMS) ISO 14001 Principles.

2. The following must be conducted, geohydrological study, the storm water management plan and all other relevant authorities must be consulted should any fuel be stored underground in the future.

3. The Environmental Control Officer (ECO) must be appointed. She or he must keep and maintain a detailed incidents report (including spillage or any other materials) and complaint register regarding the issues of contaminated soil on site indicating how these issues were addressed, what rehabilitation measures were taken and what preventative measures were implemented to avoid re-occurrence of incidents/ complaints.

4. Waste management plan must be compiled to facilitate compliance with the condition of NEMA waste Act number 59 of 2008 and also to provide guidance to ensure that domestic, industrial and hazardous wastes are managed at the proposed site in a way that is protective of health, safety and the environmental.

5. Material Safety Data Sheet (MSDS) shall be readily available on site for all chemicals and hazardous substance to be used on site. Where possible and available MSDS should additionally include information on measure to minimize negative environmental impacts during accidental releases or escapes.

6. The site and the crew are to be managed in strict accordance with the Occupational Health and Safety Act 1993 (Act No 85 of 1993) and the National Building Regulations. The act requires the designation of a health and safety representative when more than 20 employees are employed.

7. The proposed facility must register with the local Fire Fighters Organization and periodically conducts drill in conjunction with the local fire fighter's unit.

MANGAUNG

DIRECTORATE PLANNING

8. The proposed development must comply with other environmental legislation and requirements that are related to issues such as noise and light pollution, air quality, water use and management, solid waste management and storm water management

Should more information be required, please contact this office?

Kind Regards

Ramongalo

Ms. M. Ramongalo
Manager: Environmental Assessment

PO Box 3704, Bloemfontein 9300, Room 1017, 10th floor, Brain Fischer Building, Cnr Nelson Mandela & Markgraaff Street
Tel: +27 51 405 8577 E-Mail: Mpolokeng.ramongalo@mangaung.co.za, Website: www.mangaung.co.za

DESTEA

destea
department of economic, small business development tourism and environmental affairs
FREE STATE PROVINCE

Reference: EMS/27. 4/20/02
NEAS ref FSP/EIA/0000324/2020
Enquiries: Ms. Boipelo Mogorosi
113 St. Andrews Building, Bloemfontein
Tel: (051) - 400 4815
E-mail: mogorosib@destea.gov.za

To: Neil Devenish
Environmental Assessment Practitioner (EAP)

MDA
P.O. Box 100982
Brandhof
9324

Tel. 051 447 1583
Email: neil@mdagroup.co.za

Dear Neil,

ACCEPTANCE OF SCOPING REPORT FOR THE PROPOSED CONSTRUCTION OF A DIESEL DEPOT WITH ANCILLARY AMENITIES ON PORTION 1 OF PLOT 42, ESTOIRE, BLOEMFONTEIN, FREE STATE PROVINCE.

The Department of Economic, Small Business Development, Tourism and Environmental Affairs (DESTEA) - 'the Department' hereby accept the scoping report without conditions and advise the applicant to proceed or continue with the tasks contemplated in the plan of study for environmental impact assessment as per regulation 22.

The applicant must within 106 days of the acceptance of the scoping report submit to the competent authority an environmental impact report as per regulation 23 (1) (a) or (b).

Please also note that the activity applied for may not commence prior to an Environmental Authorisation being granted by the CA.

Regards,

Ms. B. Mogorosi
Environmental Officer Production Grade A: EIM

Date: 11/11/2020

Sub-Directorate: 113 Saint Andrew Street, Bloemfontein, 9300

Environmental Impact Management
Tel: +27 (051) 400 4812
E-mail: [illegible]

www.edtea.fs.gov.za

Any further comments received during the PPP will be included in the Final Environmental Impact Assessment Report.

APPENDIX D_5

Response to comments received

a) **SAHRA**

Comments:

- Initially mentioned that, as this is a NEMA application the draft BAR must be submitted to the application before the SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit will issue a final comment on it.
- After SAHRA reviewed the Final Scoping Report as well as the Recommendations by the Archaeological Specialist, SAHRA commented that it has no objections against the proposed development subject to the following conditions
  - The Draft and Final EIAs must be submitted to SAHRA
  - Should any objects or archaeological or palaeontological remains be found during construction activities, work must immediately stop in that area and the ECO must be informed.
  - The ECO must inform SAHRA and contact an archaeologist and / or palaeontologist, depending on the nature of the find, to assess the importance and rescue them if necessary (with the relevant SAHRA permit). No work may resume in the area without the permission from the ECO and SAHRA.
  - If the newly discovered heritage resource is considered significant, a Phase 2 assessment may be required. A permit from the responsible heritage authority will be required.
  - A Chance Finds Procedures must be developed for the project to ensure that standard protocols and steps are followed should any heritage and / or fossil resources be uncovered during all phases of the project. These procedures should outline the steps and reporting structure to be followed in the instance that heritage resources are found. This must be included in the Environmental Awareness Plan.
  - Should the project be granted EA, SAHRA should be notified and all relevant documents be submitted to the case file.

Response:

- A Scoping Report uploaded to the SAHRIS website.
- The conditions stipulated by SAHRA will be included in the EMPr.

b) DWS

Comments:

- Bund wall of fuel tanks should be within the capacity to be able to contain spillages
- All effluent from the wash bay should be disposed of in a properly constructed drain and must be situated as far as possible away from a watercourse
- Only domestic wash waster may be allowed to enter the drain and any effluent containing oil and grease or other industrial substances must be collected in a suitable receptacle and removed from site.
- The name of the Hazardous Waste Company to be used for the removal of hazardous material should be provided to DWS. A written agreement between the applicant and the said company should also be forwarded to DWS.
- The applicant should ensure that the septic tank is approved and is sited in such a way that it does not cause water or other pollution. Mitigation measures must be in place to prevent contamination of local groundwater and surface water.
- The applicant should indicate where the effluent will be discharged after it is drained from the septic tank. The applicant should clearly indicate how the septic tanks will be handled and Authorisation for Section 21(g) of the National Water Act (Act 36 of 1998) should be obtained if required.
- It is important that any spillages of chemicals are reported to DWS and relevant authorities.
- The applicant should ensure that no unacceptable impact on the quality of both surface and groundwater is associated with the proposed project. If pollution of any surface or groundwater occurs, it must be immediately reported to DWS and appropriate mitigation measures must be implemented.
- Ensure that all specialist studies form part of the EIA and must be submitted to DWS before construction commences.
- All relevant sections and regulation of the National Water Act, 1998 (Act 36 of 1998) regarding water use must be adhered to.

Response:

- The conditions stipulated by DWS are noted.
- The applicant is currently in the process of acquiring an agreement with a hazardous waste removal company for the removal of

hazardous waste. More information on the above will be provided in the EIA (current document).

- Due to faulty flow of municipal sewerage lines, a 23m^3 underground septic tank was installed in 2009. The applicant currently makes use from a sewerage removal company to remove sewerage on a monthly basis.

c) CAA

Comments:

- Initially commented that an application should be forwarded to CAA.
  - After CAA reviewed the application, the following comments were received:
  - After evaluating the site position to the obstacle application form dated 20 May 2020, in principle the SACAA has no objection, the following conditions and restrictions applies:
  - • Any exterior lighting is restricted to full cut-off lighting 0° above the horizontal plane.
  - • Non-reflecting painting and Materials should be applied to reduce glare and prevent blinding pilots.
  - Kindly note that approval for the construction of cranes, if used, must be obtained 6 weeks prior to construction from this department.
  - This conditional approval is valid for 5 years from the date of this letter.

Response:

- An application was submitted to CAA.

d) Mangaung Metropolitan Municipality

Comments:

- An EMPr must be compiled and submitted to MMM.
- Should any fuel be stored underground in future, the following should be undertaken:
  - A geohydrological study must be conducted.
  - Stormwater management plan must be compiled.
  - All other relevant authorities must be consulted.
- An ECO must be appointed
- A waste management plan must be compiled and also provide guidance to ensure that domestic, industrial and hazardous wastes are managed at the proposed site in a way that is protective of health, safety and environmental.
- Material Safety Data Sheets shall be available on site for all chemicals and hazardous substances to be used on site. It should additionally include (where available) information on measures to minimize negative environmental impacts during accidental releases or escapes.
- Site and Employees are to be managed in strict accordance with the OHS Act and National building Regulations. A health and safety representative should be appointed if more than 20 employees are employed.
- Facility must register with the local Fire Fighters Organization and periodically conducts drill in conjunction with the local fire fighter's unit.
- Proposed development must comply with other environmental legislation and requirements that are related to issues such as noise and light pollution, air quality, water use and management, solid waste management and storm water management.

Response:

- An EMPr will be attached to the EIA document (current document).
- Please note that a geohydrological study will be required in future, should the applicant decide to construct underground fuel tanks in future.
- The EMPr will form part of the Environmental Impact Assessment Report.
- It is not anticipated that any fuel will be stored underground. However, should any fuel be stored underground in future, the necessary specialists will assess the site.

- And ECO and Health and Safety Officer will be appointed by the contractor during the construction phase of the project.
- The necessary environmental legislations and requirements regarding issues such as noise, light, air and water pollution will be adhered to. Solid Waste – and Storm Water Management will also be undertaken according to Best Practices.
- The proposed facility will register with the Local Fire Fighters Organization.
- Copies of the dScoping & fScoping Report were forwarded to all registered IAPs

e) Department of Police, Roads and Transport

Comments:

- The provincial tertiary road T4730 will be affected by the proposed project
- The Department will formulate comments subsequent to obtaining a site development plan and information on the expected traffic to determine the impact on the provincial road network

Response:

- A proposed layout map (attached as Appendix C of the dScoping Report) was forwarded to the said Department
- A Traffic Impact Assessment will be undertaken and the findings thereof will be included in the Environmental Impact Assessment Report (the current document). The said report will be forwarded to all registered IAPs.

APPENDIX D_6

Proof of submission of the Draft Scoping Report to Registered Parties

40813: Draft Scoping: The proposed construction of a Diesel Depot, Portion 1 of Plot 42, Estoire, Bloemfontein		
Organisation	Contact person and contact details	Proof of Delivery
The Municipal Ward Councillor: Ward 47	Ward Councillor, Ward 47 Clr John Matthews De Bruin 0603461410 johndebruin38@gmail.com Delivered by hand at the DA Offices	Received by: ______ Date: 20/03/2020
Mangaung Metro Municipality City Manager	The City Manager P.O. Box 3704 Bloemfontein 9300	Received by: ______ 94604740 14:55 Date: 20/03/2020
Mangaung Metro Municipality: Environmental Division	Me. Mpalokeng Kolobe P.O. Box 3704 Bloemfontein 9300	Received by: ______ Date: 20/03/2020
Mangaung Metro Municipality: Planning Division	Collin Dihemo P.O. Box 3704 Bloemfontein 9300	Received by: ______ Date: 20/03/2020
SAHRA	South African Heritage Resources Agency (SAHRA) Head Office	Online submission on: ______
FSHRA	Ntando PZ Mbatha Heritage Coordinator Corner Henry and East Burger Street	Received by: ______ Date: 20/03/2020
Department of Police, Roads and Transport	Hannes Maree Room 106, Medfontein Building, 155 St Andrew Street P.O. Box 119, Bloemfontein, 9300 MareeH@freetrans.gov.za	Received by: ______ Date: 20/03/2020
Department of Water and Sanitation	Mr Masia Mgwambani The Director: Water Regulation in the Free State Mr. W Grobler Private Bag X528 Bloemfontein 9300 mgwambanim@dwaf.gov.za	Received by: ______ Date: 20/3/2020

The proposed construction of a diesel depot on Portion 1 of Plot 42, Estoire, Bloemfontein

dScoping: 40813

DESTEA	DESTEA Private Bag X20801 Bloemfontein 9300	RECEIVED 31-10-2019
The Municipal Ward Councillor: Ward 47	Ward Councillor, Ward 47 Clr John Matthews De Bruin 0603461410	
Mangaung Metro Municipality: Environmental Division	Me. Mpolokeng Kolobe MMM P.O. Box 3704 Bloemfontein 9300	31/10/2019
Mangaung Metro Municipality: Planning Division	Collin Dihemo MMM P.O. Box 3704 Bloemfontein 9300	31/10/2019
FSHRA	Ntando PZ Mbatha FSHRA Office 204 Bloemfontein 9301	31/10/2019
Department of Police, Roads and Transport	Hannes Maree Department of Police, Roads and Transport P.O. Box 119 Bloemfontein 9300	S.A POST OFFICE 2019 -10- 31 No. 2 BRANDHOF - 9321 01/11/2019
Department of Water and Sanitation	Mr Masia Mgwamboni The Director: Water Regulation in the Free State Mr. W Grobler Private Bag X528 Bloemfontein 9300	
Mangaung Metro Municipality City Manager	The City Manager Mangaung Metro Municipality P.O. Box 3704 Bloemfontein 9300	ORDINARY PARCEL

APPENDIX D7

Proof of submission of the Final Scoping Report to Registered Parties

The proposed construction of a diesel depot on Portion 1 of Plot 42, Estoire, Bloemfontein

fScoping: 40813

DESTEA	DESTEA Private Bag X20801 Bloemfontein 9300	Lizzie Masoeu 28/01/2020
The Municipal Ward Councillor: Ward 47	Ward Councillor, Ward 47 Clr John Matthews De Bruin 0603461410	Mokgadi Kganakgai 29/01/2020
Mangaung Metro Municipality: Environmental Division	Me. Mpolokeng Kolobe MMM P.O. Box 3704 Bloemfontein 9300	Mpolokeng Kolobe 29/01/2020
Mangaung Metro Municipality: Planning Division	Colin Dinemo MMM P.O. Box 3704 Bloemfontein 9300	Tshidiso Nkabeesa 29/01/2020
FSHRA	Ntando PZ Mbatha FSHRA Office 204 Bloemfontein 9301	29/01/2020
Department of Police, Roads and Transport	Hannes Maree Department of Police, Roads and Transport P.O. Box 119 Bloemfontein 9300	ORDINARY PARCEL CUSTOMER COPY
Department of Water and Sanitation	Mr Masia Mawambani The Director: Water Regulation in the Free State Mr. W Grobler Private Bag X628 Bloemfontein 9300	(Courier Messenger) DWS 29/01/2020
Mangaung Metro Municipality: City Manager	The City Manager Mangaung Metro Municipality P.O. Box 3704 Bloemfontein 9300	ORDINARY PARCEL CUSTOMER COPY

APPENDIX H_{11}

EMPr

ENVIRONMENTAL MANAGEMENT PROGRAMME

The proposed construction of a diesel depot on Portion 1 of Plot 42, Estoire, Bloemfontein

Location:	Portion 1 of Plot 42, Estoire, Bloemfontein, Free State
Applicant:	Mack's Petroleum (PTY) LTD
Competent Authority:	The Free State Department of Economic, Small Business Development, Tourism and Environmental Affairs (DESTEA)
MDA Ref No:	40813
DESTEA Ref No:	EMS/4/20/02
NEAS Ref No:	FSP/EIA/0000324/2020
Report Date:	November 2020

mda Town & Regional Planners, Environmental & Development Consultants

Physical Address: 9 Barnes Street, Westdene, Bloemfontein, 9301
Postal Address: PO Box 100982, Brandhof, 9324
Tel: 051 4471583, Fax: 051 448 9839
E-mail: admin@mdagroup.co.za

1. INTRODUCTION

1.1 Project and associated construction activities

The proposed project entails the construction / development of a fuel depot with ancillary amenities, including a wash bay on Portion 1 of Plot 42, Sand du Plessis Avenue, Estoire Small Holdings, Bloemfontein.

The storage tanks will be above ground of nature. The above ground tanks will be bunded to carry at least 110% of the total volume of fuel to be kept in the tanks. It is proposed that the following above ground tanks be installed during various phases:

- Phase 1: 1 x 79 000ℓ (existing)
- Phase 2: 5 x 83 000 ℓ
- Phase 3: 5+ x 83 000 ℓ

Please refer to the map in Appendix A of the EIA Report for an indication on the locality of the proposed activities.

1.2 Objectives of the EMPr

The EMPr aims to fulfil the requirements in terms of the National Environmental Management Act (Act 107 of 1998), with the following objectives:

- To identify, predict and evaluate actual and potential impacts on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimizing negative impacts, maximizing benefits and promoting compliance with the principles of environmental management;
- To identify and employ the modes of environmental management best suited to ensuring that the activity is pursued in accordance with best environmental management practices;
- To be able to respond to unforeseen events; and
- To provide feedback on compliance.

1.3 Implementation of the EMPr

The proponent, namely Sky Mack's Petroleum (PTY) LTD is responsible for the implementation of the EMPr. All contractors should be supplied with a copy of the EMPr and should ensure that construction staff adheres to the mitigation measures.

2. PREPARATION OF THE EMPR

2.1 Person(s) who prepared the EMPr

i) Mr Neil Devenish
ii) Me Hanlie Stander

MDA
P.O. Box 100982
Brandhof
Bloemfontein
9324
Tel: 051 447 1583
Fax: 051 448 9839

2.2 Expertise of the person(s) who prepared the EMPr

i) Mr Neil Devenish

Key qualifications:

- Key competencies and experience include development control applications (applications and appeals pertaining to rezoning, consolidations, subdivisions etc.) township establishment applications, environmental management and control applications.

Education:

- B. A. (Sociology, Geography) University of the Free State, SA, 1994
- Master of Town and Regional Planning, University of the Free State, SA, 1996
- Managing the Environmental Impact Assessment Process, Environmental Management Unit, PU for CHE, 2000

- Environmental Management Consulting, South African Institute of Ecologists & Environmental Scientists, 2001
- Water Law of South Africa, The South African Institution of Civil Engineers (SAICE), 2006

ii) Me Hanlie Stander

Key qualifications:

- Key competencies and experience include environmental management and research in zoology and environmental management.

Education:

- B.Sc. (Zoology), University of the Free State, South Africa, 2005
- B.Sc. Honours (Zoology), University of the Free State, South Africa, 2006
- M.Sc. (Zoology), University of the Free State, South Africa, 2012

3. RECOMMENDED MANAGEMENT AND MITIGATION MEASURES

ECO - Environmental Control Officer / IECO - Independent Environmental Control Officer / SO - Safety Officer

Compliance and Monitoring					
Objective	**Mitigation Measure**	**Executing Party**	**Monitoring Party**	**Timeframe**	**Project Stage**
Record keeping of compliance and monitoring reports	1. The applicant will ensure that the contractors adhere to the recommendations of the EMPr and conditions of the Environmental Authorisation during construction.	Applicant / Contractor	Contractor / ECO / Applicant	On-going	During planning, construction and rehabilitation phase
	2. An Environmental Control Officer (ECO) will be appointed to monitor the construction phase. Note that the ECO may be appointed separately or can be part of the contractor's team.	ECO / Contractor	IECO	On-going	During construction and rehabilitation phase
	3. Regular monitoring and / or spot inspections at least every fortnight during the construction phase is recommended.	ECO / Contractor	ECO/ IECO	On-going	During construction and rehabilitation phase
	4. Inspections should be documented and any shortcomings addressed immediately.	ECO / Contractor	ECO/ IECO	On-going	At all phases

Compliance and Monitoring					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	5. A report will be provided by the independent ECO to the contractor upon completion thereof. The findings thereof should be made available to the competent authority (for example DESTEA, DWS), should it be requested.	IECO / Contractor	ECO/ DESTEA / DWS	Monthly during construction period, or as stipulated in the EA, and on completion of the construction activities.	Construction Phase.
	6. Any emergency or unforeseen impact will be reported to the relevant environmental department within 24 hours after identification for telephonic approval and will be confirmed in writing.	ECO / Contractor	ECO/ IECO / DWS / DESTEA	On-going	At all phases
	7. During the operational phase the fuel tanks, wash bay and associated infrastructure must be routinely audited and maintenance schedule adjusted accordingly in order to prevent leakage / pollution.	Applicant	DWS / DESTEA	On-going	During operational phase

Compliance and Monitoring					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	8. Material Safety Data Sheets (MSDS) should be available on site. Where possible and available, MSDS should include information on ecological impacts and measures to minimize negative environmental impacts during accidental releases or escapes.	ECO / Contractor	ECO/ IECO / DWS / DESTEA	On-going	During construction and rehabilitation phase
	9. Procedures in the MSDS should be implemented in case of an emergency	ECO / Contractor	ECO/ IECO / DWS / DESTEA	On-going	During construction and rehabilitation phase
	10. The following documents should be available on site, and made available to the competent authority on request (if applicable): - Complaints Register - Environmental Incident Register - Disposal Certificates of waste generated during the construction / operational phase - Disposal Certificates of waste generated as a result of the construction activities - Environmental Monitoring (Audit) Reports - Written Corrective Action Instructions	ECO / Contractor	ECO/ IECO / DWS / DESTEA	On-going	During construction and rehabilitation phase

Compliance and Monitoring					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	- Environmental Authorisation - DWS Permit / License (if required) - Blasting Permit (if required) - EMPr				

Planning and Design phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
Planning and design NOTE: Should the following aspects not be taken into consideration during the Planning and Design Phase, the environmental impacts associated with the construction and operation phase will be of high significance as the environment	1. No environmental mitigation measures are required during the planning phase on the proposed site, as no mitigation measures are to be implemented on site during the planning phase.	Applicant / Engineers / Environmental Consultant / Contractor	Applicant	On-going	During planning and design phase
	2. The design and layout of the proposed project will take the possibility of flooding, erosion and pollution into consideration	Applicant / Engineers / Environmental Consultant / Contractor	Applicant	On-going	During planning and design phase
	3. The applicant, engineers, environmental consultants and specialists should take the following steps during the planning phase: - Permits will be obtained for the removal / transplantation of protected species (if any) that are located within the construction area where no alternatives are possible. - A monitoring system should be implemented to determine the occurrence (if any) of any fuel / oil spillages during the construction phase.	Applicant / Engineers / Environmental Consultant / Contractor	Applicant	On-going	During planning and design phase

Planning and Design phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
will be negatively affected.	- The necessary Environmental Authorisation will be obtained before any activities listed in the Regulations are undertaken. - In addition, the necessary DWS registrations will be obtained, before any construction activities near watercourses are undertaken. - The necessary precautions with regard to road safety will be implemented for construction work to be undertaken within road crossings (if any). - Proper sanitation, potable water and waste facilities will be in place before construction activities are undertaken. - A blasting permit will be obtained before blasting activities is undertaken (if any).				

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
General measures to consider	1. Any construction is disruptive and the environment must be given consideration with every activity undertaken	Contractor	ECO / IECO	On-going	During construction phase
	2. All relevant standards relating to legislation should be adhered to (including waste emissions, waste disposal, noise regulations, etc.)	Contractor	ECO / IECO	On-going	During construction phase
	3. According to Section 28 of the NEMA Act 107, every person who cause, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring and if it can't be avoided or stopped, to minimize and rectify such pollution or degradation of the environment.	Contractor	ECO / IECO	On-going	During construction phase
	4. The pollution control provision in Section 19(1) of the National Water Act (Act 36 of 1998) should be adhered to at all times.	Contractor	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	5. ECO should be provided with a layout of the site, indicating the position of the following prior to the site establishment, for acceptance: - Ablution Facilities - Storage Areas - Ready-mix Areas - Stockpile Areas - Waste Disposal Facilities - Hazardous Substances Storage Area - Etc.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	6. Designate the boundaries of the active construction start-up site, by erecting fencing / danger tape (where applicable)	Contractor	ECO / IECO	On-going	During construction phase
	7. Fence off operational footprint area (if possible) to ensure all operational activities are contained within the designated area.	Contractor	ECO / IECO	On-going	During construction phase
	8. All construction and operational activities must be contained within the demarcated servitude determined in consultation with the ECO.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	9. Care will be taken to prevent unnecessary damage to vegetation near to construction activities.	Contractor	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	10. The necessary precautions with regard to road safety will be implemented for construction work within road crossings (if any).	Contractor	ECO / IECO	On-going	During construction phase
	11. Proper sanitation, water and waste facilities will be in place for construction workers throughout the construction phase.	Contractor	ECO / IECO	On-going	During construction phase
	12. Chemical toilets (if any) will be cleaned and serviced regularly and proof thereof will be available on site.	Contractor	ECO / IECO	On-going	During construction phase
	13. Potable water will be made available daily to workers on site.	Contractor	ECO / IECO	On-going	During construction phase
	14. Fire-fighting equipment will be available on site, where applicable.	Contractor	ECO / IECO	On-going	During construction phase
	15. If artefacts or graves are uncovered during construction activities, work in the immediate vicinity will be stopped until the project Archaeologist and SAHRA has been consulted.	Contractor	ECO / IECO	On-going	During construction phase
	16. Adjacent landowners will be notified of proposed blasting, 24 hours prior to blasting activities.	Contractor	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
Site access	1. Necessary drawings for the upgrading of intersections (if any) are to be submitted to the relevant authority (SANRAL / Provincial Department of Roads / Municipality's Department of Roads) for approval, and the upgrades are to be implemented	Applicant / Contractor	ECO / IECO	On-going	During construction phase
	2. The current access road should be improved, when required	Contractor	ECO / IECO	On-going	During construction phase
	3. Proper storm water measures are to be implemented to avoid run-off of water and washing of sand / soil onto the road	Contractor	ECO / IECO	On-going	During construction phase
	4. Erosion measures will be implemented	Contractor	ECO / IECO	On-going	During construction phase
	5. Removal of vegetation will be kept to the required area	Contractor	ECO / IECO	On-going	During construction phase
	6. No animals will be hunted / captured on site (only to be undertaken by a relevant specialist)	Contractor / ECO	ECO / IECO	On-going	During construction phase
Employee conduct on site	1. No animals may be harmed / captured / trapped and / or hunted. This must be strictly enforced.	Contractor / ECO	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	2. Animals found at the construction site will be removed and relocated to an appropriate area, by a suitable, qualified person	Contractor / ECO	ECO / IECO	On-going	During construction phase
	3. No open fires allowed. Provision will be made to limit the occurrence of accidental fires.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	4. No firewood will be collected on site or in surrounding areas, without written approval from the landowner.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	5. No smoking or open fires will be allowed near storage facilities	Contractor / ECO	ECO / IECO	On-going	During construction phase
	6. No waste may be dumped on site	Contractor / ECO	ECO / IECO	On-going	During construction phase
	7. Employees should make use of the ablution facilities provided	Contractor / ECO	ECO / IECO	On-going	During construction phase
Soil, erosion and vegetation management	1. Construction activities will be limited to designated construction areas to prevent peripheral impacts on surrounding natural habitats. Construction vehicles will also keep to constructed roads where possible, so that natural vegetation is not destroyed unnecessarily.	Contractor / ECO	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	2. Access roads or temporary crossings must be non-erosive, structurally stable and not induce flooding / safety hazard.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	3. If any access road or temporary crossing is impaired, it will be repaired immediately to prevent any future / further damage.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	4. All no-go areas must be demarcated under guidance of the Environmental Control Officer (ECO). All human movement and activities will be contained within designated construction areas in order to prevent peripheral impacts on surrounding natural habitat.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	5. Erosion management is important. Rehabilitation measures must be monitored to ensure that no erosion has occurred and the disturbed areas have been adequately re-vegetated.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	6. Concurrent rehabilitation of disturbed areas will be undertaken to help the recovery of the vegetation.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	7. Stockpiled soil will be stockpiled in an area where it will not be disturbed by vehicles.	Contractor / ECO	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	8. Stockpiled soil will be protected from washing away during rainstorms. For example: - One layer of bricks or stones can be placed around the stockpiled topsoil. - Bricks may be placed around the stockpiles, to limit the loss thereof due to rainy events. - Stockpiles should not be higher than 1.5 m. - The gradient of stockpiles should not be greater than 1:1.5.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	9. Stockpiles should be located away from drainage lines, watercourses and areas of temporary flood	Contractor / ECO	ECO / IECO	On-going	During construction phase
	10. All soil excavated is to be separated into top- and subsoil. Subsoil must be used for backfilling and topsoil for landscaping and rehabilitation of disturbed areas	Contractor / ECO	ECO / IECO	On-going	During construction phase
	11. Stockpiled material will be placed on the cleared areas once construction is completed. Re-spreading of topsoil is to be done to its original depth.	Contractor / ECO	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	12. Fertilisers should be used where topsoil and subsoil was mixed or where the topsoil is not up to original standard	Contractor / ECO	ECO / IECO	On-going	During construction phase
	13. Indigenous tree species in the vicinity of the operational site (if any) should be marked with danger tape. Disturbance to such species should be avoided, where possible.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	14. A permit for the removal of protected plant species will be obtained before the removal of these species (if any).	Applicant / Contractor	ECO / IECO	On-going	During construction phase
	15. An alien control and monitoring programme will be developed starting during the construction phase and will be carried over into the operational phase.	Contractor / ECO	ECO / IECO	On-going	During construction and operational phase
	16. Any proclaimed weed or alien species that germinates on site will be cleared by hand / approved chemicals before flowering thereof.	Contractor / ECO	ECO / IECO	On-going	During construction and operational phase
	17. Imported fill material will be monitored during and after construction for the presence of any alien species. Any such species will be removed immediately.	Contractor / ECO	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	18. Fire fighting equipment will be available on site.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	19. Species, especially grasses, trees and shrubs occurring in the region will be used to rehabilitate disturbed areas.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	20. Compacted soils (such as dirt tracks not to be utilised during the operational phase) must be ripped to ensure the establishment of natural occurring vegetation.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	21. Should natural re-growth not be sufficient, the area should be hydro-seeded.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	22. Concurrent rehabilitation should be undertaken, where possible.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	23. Vegetation clearance will be limited to the required area.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	24. Speed limit will be enforced on the construction vehicles and these vehicles will only make use of designated roads / pathways.	Contractor / ECO	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	25. Dust control measures will be implemented if nuisance dust generation occurs during the construction period.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	26. All archaeological findings (if any) should be recorded and reported to SAHRA. No construction activities in the area may proceed without the authorisation from SAHRA.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	27. Storm water measures will be implemented in order to manage storm water and this will also prevent erosion.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	28. The site will have to be properly sloped in order to allow the storm water to drain sufficiently.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	29. Visual inspections for the occurrence of erosion should be undertaken on a weekly basis.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	30. No animals may be captured / harmed / killed on site. The removal of animals may only be undertaken by a suitable person.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	31. Any occurrences of harmed animals should be reported to the ECO and recorded as such.	Contractor / ECO	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	**Mitigation Measure**	**Executing Party**	**Monitoring Party**	**Timeframe**	**Project Stage**
Minimise contamination and sterilisation of soil	1. Use of potentially polluting and hazardous substances should be strictly controlled	Contractor / ECO	ECO / IECO	On-going	During construction and operational phase
	2. If soil is significantly contaminated by hazardous substances, then this soil is considered as hazardous and should be disposed of according to best practices	Contractor / ECO	ECO / IECO	On-going	During construction phase
	3. Repair / maintenance will be conducted on site, and impacts like oil spills should be appropriately mitigated. Spill response procedures must be clearly defined and well known by all staff.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	4. All threatened or protected plant species as specified by the NEM: Biodiversity Act (2004) will be identified on site. Permits are required for the removal / transplantation of these plants.	Contractor / ECO	ECO / IECO	On-going	During construction phase
Trenching, placing of pipeline and covering of pipeline	1. Site will be kept neat and tidy.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	2. Appropriate area will be identified as a stockpiling area.	Contractor / ECO	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	3. Speed limit will be enforced on the construction vehicles and these vehicles will only make use of designated roads / pathways.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	4. Dust control measures will be implemented if nuisance dust generation occurs during the construction period.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	5. Stockpiled material will be stored in such a way to limit the loss thereof. For example: - Bricks may be placed around the stockpiles, to limit the loss thereof due to rainy events. - Stockpiles should not be higher than 1.5 m. - The gradient of stockpiles should not be greater than 1:1.5.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	6. Noise control measures will be implemented.	Contractor	ECO / IECO	On-going	During construction phase
	7. All employees will be provided with the correct PPE.	Contractor	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	8. Establishment of alien / invader vegetation will be monitored and these species will be removed by hand or by an approved chemical before gestation thereof.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	9. All archaeological findings (if any) should be recorded and reported to SAHRA. No construction activities in the area may proceed without authorisation from SAHRA.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	10. Storm water measures will be implemented in order to manage storm water and this will also prevent erosion.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	11. Visual inspections for the occurrence of erosion should be undertaken on a weekly basis.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	12. No animals may be captured / harmed / killed on site. The removal of animals may only be undertaken by a suitable person.	Contractor	ECO / IECO	On-going	During construction phase
	13. Any occurrences of harmed animals should be reported to the ECO and recorded as such.	Contractor	ECO / IECO	On-going	During construction phase
Ablution Facilities	1. No open areas or the surrounding vegetation may be used as 'toilet facilities'.	Contractor	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	2. Toilets should be available for all employees. Where waterborne sewerage is not available, the ECO must designate an area within the boundaries of the site for the erection of portable chemical toilets.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	3. Toilet facilities shall occur at a minimum ration of 1 toilet per 15 employees.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	4. Toilets shall be maintained in a hygienic state and serviced when required.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	5. Temporary toilets (if any) should be serviced regularly and the contents be removed to a licensed disposal facility.	Contractor / ECO	ECO / IECO	On-going	During construction phase
Safeguard water resources	1. No activities will be undertaken within 32 m of a watercourse / within the 1:100 year floodline / 500m of a wetland, without the necessary authorisations (for example from DESTEA and DWS).	Contractor / ECO	IECO / DWS / DESTEA	On-going	During construction phase
	2. Caution will be taken to ensure that construction materials are not dumped or stored within storm water management systems.	Contractor / ECO	IECO / DWS / DESTEA	On-going	During construction phase
	3. Construction activities in the storm water infrastructure will be limited through proper demarcation and appropriate	Contractor / ECO	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	environmental awareness training.				
	4. The Contractor is responsible to inform all staff of the need to be vigilant against any practice that will have a harmful effect on waterways.	Contractor	ECO / IECO	On-going	During construction phase
	5. Infilling, excavation, drainage and hardening of surfaces will not occur unnecessarily in storm water infrastructure.	Contractor	ECO / IECO	On-going	During construction phase
	6. Emergency plans will be in place in case of fuel spillages (to limit the occurrence of soil as well as groundwater pollution).	Contractor	ECO / IECO	On-going	During construction phase
	7. A monitoring system should be implemented to determine the occurrence (if any) of any fuel / oil spillages during the construction or operational phase.	Contractor	ECO / IECO	On-going	During construction phase
	8. Occurrence of erosion will be monitored. Reparations will be undertaken as soon as possible.	Contractor	ECO / IECO	On-going	During construction phase
	9. The necessary mitigation measures should be implemented immediately, should any leakages / spills be detected.	Contractor	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	10. Weather forecasts from the South African Weather Bureau of up to three days in advance will be monitored on a daily basis to avoid exposing soil or construction works or materials during a storm event and appropriate action will be taken in advance to protect construction works should a storm event be forecasted.	Contractor	ECO / IECO	On-going	During construction phase
	11. All no-go areas will be demarcated under guidance of the Environmental Control Officer (ECO).	Contractor / ECO	ECO / IECO	On-going	During construction phase
	12. The design of drainage systems will ensure that there is no contamination or eutrophication. Drainage systems will be maintained regularly in order to minimize the runoff of harmful chemical substances into the waterway(s).	Contractor	ECO / IECO	On-going	During construction phase
	13. It will be ensured that the construction activities have minimal effects on the flow of water through the storm water infrastructure.	Contractor	ECO / IECO	On-going	During construction phase
	14. No erosion or siltation may occur due to any construction or operational activities.	Contractor	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	15. Construction and operational activities should take the wetland boundaries and associated buffer zones into consideration (if any).	Contractor	ECO / IECO	On-going	During construction phase
Workings within / near to watercourses	1. Storm water measures will be implemented in order to manage storm water and this will also prevent erosion.	Contractor	ECO / IECO	On-going	During construction phase
	2. Construction activities in waterways should be undertaken in such a manner that no containment of water is required, where possible. 2/3 of the waterways may be diverted at a time, where required.	Contractor	ECO / IECO	On-going	During construction phase
	3. The necessary authorisations should be obtained from DWS, should the containment of water be required.	Contractor	ECO / IECO / DWS	On-going	During construction phase
	4. Visual inspections for the occurrence of erosion should be undertaken on a weekly basis.	Contractor / ECO	ECO / IECO	On-going	During construction phase
Handling of waste / Waste Management (Note that waste refers to all	1. The contractor is responsible for the removal of construction waste.	Contractor	ECO / IECO	On-going	During construction phase
	2. Suitable containers (weather and vermin proof) will be placed on site to collect all solid waste. These will be emptied regularly.	Contractor	ECO / IECO	On-going	

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
construction debris and domestic waste generated due to construction activities.)	3. No littering is permitted. During the construction and operational phase the site will be maintained in a neat and tidy condition.	Contractor	ECO / IECO	On-going	During construction phase
	4. All solid waste produced will be disposed of at an authorized landfill site. Recyclable waste may also be sold to recycling contractors.	Contractor	ECO / IECO	On-going	During construction phase
	5. No dumping, burning or burying of waste will be undertaken on site.	Contractor	ECO / IECO	On-going	During construction phase
	6. All hazardous waste will be disposed of at an authorized hazardous landfill site.	Contractor	ECO / IECO	On-going	During construction phase
	7. Recyclable hazardous waste will be re-used or sold to recycling contractors, where possible	Contractor	ECO / IECO	On-going	During construction phase
	8. A waste management plan will be compiled and designed to ensure that adequate waste management activities are undertaken.	Contractor	ECO / IECO	On-going	During construction phase
	9. Areas used for waste storage and loading of materials should be lined and bund walls have to be erected to contain any spills that might occur.	Contractor	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	10. Waybills providing evidence of correct disposal procedure must be provided for the ECO's inspection.	Contractor	ECO / IECO	On-going	During construction phase
	11. Waste classification should be undertaken.	Contractor	ECO / IECO	On-going	During construction phase
	12. Visual inspections for the occurrence of pollution should be undertaken daily.	Contractor	ECO / IECO	On-going	During construction phase
	13. Spills should be cleaned up immediately according to best practices	Contractor	ECO / IECO	On-going	During construction phase
	14. DWS should be notified of any spillage / pollution of water sources (groundwater and / or surface water) within 24 hours of occurrence	Contractor	ECO / IECO / DWS	On-going	During construction phase
	15. Record should be kept on site to indicate date of visual inspection, any spillages observed, and manner in which spill was treated.	Contractor / ECO	ECO / IECO / DWS	On-going	During construction phase
Health, safety and security	1. Site should be fenced / marked with danger tape, where possible.	Contractor	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	2. The contractors will comply with the Occupational Health and Safety Act, National Building Regulations and any other national, regional or local regulations with regard to safety on site.	Contractor	ECO / IECO	On-going	During construction phase
	3. Construction contracts will include safety and security measures for staff.	Contractor	ECO / IECO	On-going	During construction phase
	4. Precautions to ensure that construction staff and sites are visible and proper PPE will be provided to all employees.	Contractor	ECO / IECO	On-going	During construction phase
	5. Suitable warning and information signage should be available at the storage facilities. In addition, telephone numbers of emergency services (including local firefighting services) must be posted conspicuously on site.	Contractor	ECO / IECO	On-going	During construction phase
	6. Employees should be made aware of the health risks associated with any hazardous substances / dangerous goods used or stored on site. This includes soil that was contaminated with oil or diesel, etc.	Contractor	ECO / IECO	On-going	During construction phase
	7. Employees should receive relevant safety training in handling of hazardous substances / dangerous goods associated with the proposed project.	Contractor	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframes	Project Stage
	8. Proper PPE should be provided to the employees and used correctly by employees.	Contractor	ECO / IECO	On-going	During construction phase
	9. Construction work within road reserves will accommodate road users as far as possible. This includes the following: - Roads will be crossed in half widths at a time to minimise the impact on vehicular traffic, where possible. - Construction along and across existing roads will be executed in such a manner that both pedestrian and vehicular traffic is accommodated at all times. - The contractor will be required to maintain adequate access to all public and private property at all times. - Contractor will supply, erect and maintain road signs for all work areas conforming to the prescribed layout and requirement of the South African Road Traffic Signs Manual and other relevant notices.	Contractor	ECO / IECO	On-going	During construction phase
	10. Fire extinguishers will be available on site and in the construction camp (if any).	Contractor	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	11. The contractor will be required to maintain adequate access to all public and private property at all times.	Contractor	ECO / IECO	On-going	During construction phase
	12. Speed limits of 20km/h will be enforced.	Contractor	ECO / IECO	On-going	During construction phase
	13. All relevant IAPs will be notified 24 hours prior to any known potential risks associated with the site and the activities to be undertaken on site. (For example, prior to any blasting to be undertaken.)	Contractor	ECO / IECO	On-going	During construction phase
	14. The necessary precautions with regard to road safety will be implemented for construction work within road crossings.	Contractor	ECO / IECO	On-going	During construction phase
	15. All injuries should be recorded.	Contractor	ECO / IECO	On-going	During construction phase
Heritage	1. In the case of the discovery of any heritage, archaeological or palaeontological significance, the work in the area will be stopped and reported to the ECO, archaeologist and SAHRA. Any construction activities in the nearby vicinity may only commence after approval is obtained from SAHRA as well as the ECO.	Contractor	ECO / IECO / SAHRA	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	2. Should any fossils be uncovered within intact sedimentary rocks during the development or if excavations exceed more than 1 m into sedimentary rock, a suitably qualified Palaeontologist must evaluate the finds or monitor the exposed areas as soon as possible.	Contractor	ECO / IECO / SAHRA	On-going	During construction phase
	3. Known heritage resources (if any) must be avoided as far as possible.	Contractor	ECO / IECO / SAHRA	On-going	During construction phase
	4. Employees should be encouraged and informed of the need to be on the look-out for potential fossils / buried archaeological material.	Contractor	ECO / IECO / SAHRA	On-going	During construction phase
	5. In the case of the discovery of any stone tools or other archaeological or palaentological material, the work in the immediate vicinity should temporarily cease and reported to the archaeologist and SAHRA. Should any human remains be exposed, the archaeologist as well as the local SAPS should also be notified.	Applicant / Contractor	ECO / IECO / SAHRA	On-going	During construction phase
	6. If any evidence of archaeological sites or remains (e.g. remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, charcoal and ash	Applicant / Contractor	ECO / IECO / SAHRA	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	concentrations), fossils or other categories of heritage resources are found during the proposed development, SAHRA APM Unit (Tel: 021 462 5402) must be alerted. If unmarked human burials are uncovered, the SAHRA Burial Grounds and Graves (BGG) Unit (Tel: 012 320 8490), must be alerted immediately. A professional archaeologist or paleontologist, depending on the nature of the finds, must be contracted as soon as possible to inspect the findings. If the newly discovered heritage resources prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation may be required subject to permits issued by SAHRA.				
	7. Appropriate measures should be undertaken by the ECO until the archaeologist / SAPS visits the site. This should include the following: - Site should be fenced with 'danger tape' - Position of finding should be recorded - Depth of finding should be recorded - Digital image of the finding should be	Applicant / Contractor	ECO / IECO / SAHRA	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	taken - No information on the findings may be made public without the consent of the archaeologist / SAPS.				
	8. Construction activities in the area may only continue after approval from the archaeologist and SAHRA.	Applicant / Contractor / ECO	ECO / IECO / SAHRA	On-going	During construction phase
Noise and dust control	1. Construction activities will be limited to normal daytime hours, where possible in order not to disturb adjacent landowners unnecessarily.	Contractor	ECO / IECO	On-going	During construction phase
	2. The noise levels will be kept to an acceptable level and comply with the standards as per legislation.	Contractor	ECO / IECO	On-going	
	3. Proper mitigation measures will be implemented to limit noise (e.g. the installation of silencers, where required).	Contractor	ECO / IECO	On-going	During construction phase
	4. Proper mitigation measures will be implemented to limit the formation of dust (e.g. wetting of construction area, when required).	Contractor	ECO / IECO	On-going	During construction phase
	5. The speed of the construction vehicles will be limited to avoid dangerous conditions, the formation of dust and the excessive deterioration of roads being used.	Contractor	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
Handling and Storage of materials NOTE: The main operation of the facilities will be the offloading of dangerous goods from tankers into storage tanks and the transportation of materials via pipes or manually.	1. All chemicals used during the development, including fuel, will be stored in a proper storeroom or protected area to prevent pollution.	Contractor	ECO / IECO	On-going	During construction phase
	2. Vehicles will be serviced at designated areas. No oil, diesel or other chemicals may be spilled or discharged anywhere.	Contractor	ECO / IECO	On-going	During construction phase
	3. Where applicable, the contractors will ensure that all relevant national, regional and local legislation regarding storage, transport, use and disposal of petroleum, chemical, harmful or hazardous substances and materials are adhered to, where necessary.	Contractor	ECO / IECO	On-going	During construction phase
	4. Cement and concrete mixing, if applicable, will only take place within the construction site. No concrete will be mixed directly on the ground.	Contractor	ECO / IECO	On-going	During construction phase
	5. All environmental problems occurring on the site such as chemical spillage, wasteful water disposal, etc. will be reported to the ECO. The ECO should implement best practices to rectify the impacts thereof on the environment.	Contractor	ECO / IECO	On-going	During construction phase
	6. Spill response equipment as well as fire extinguishers must be available during the handling and loading of hazardous	Contractor	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	waste (if any).				
	7. Large quantities of hazardous substances (such as fuel to be stored within the proposed above ground fuel tanks) are to be stored in bunded areas.	Contractor	ECO / IECO	On-going	During construction and operational phase
	8. Bund walls will have a capacity of at least 110% of the total capacity of the stored volume.	Contractor	ECO / IECO	On-going	During construction and operational phase
	9. No oil, diesel or other chemicals may be spilled or discharged anywhere and contact with bare soil should be avoided at all cost.	Contractor	ECO / IECO	On-going	During construction phase
	10. Oil leakages from vehicles, equipment, etc. can contribute to soil and groundwater contamination. To prevent the contamination, machinery, vehicles and materials must only be stored at demarcated areas. Vehicles and equipment must only be parked in designated areas. No servicing of vehicles may be allowed on site.	Contractor	ECO / IECO	On-going	During construction and operational phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	11. A monitoring system should be implemented to determine the occurrence (if any) of any fuel / oil spillages / untreated sewer.	Contractor	ECO / IECO	On-going	During construction phase
	12. Storage tanks and associated infrastructure such as bund walls, pipes and connections will be maintained and repaired throughout the operational phase.	Contractor	ECO / IECO	On-going	During construction phase
	13. Potential spillages or contaminated materials must be managed according to best practices and the contaminated material must be disposal of at a landfill site registered to accept hazardous waste.	Contractor	ECO / IECO	On-going	During construction phase
	14. The necessary mitigation measures should be implemented immediately, should any leakages / spills be detected.	Contractor	ECO / IECO	On-going	During construction phase
	15. Material stockpiles, such as bricks and pipes, must be stable and well secured to avoid collapse and possible injury	Contractor	ECO / IECO	On-going	During construction phase
	16. Material and Safety Data Sheets (MSDSs) should be readily available on site for all hazardous materials. MSDSs should additionally include information on ecological impacts and measures to minimise negative environmental	Contractor	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	impacts during accidental releases or escapes.				
	17. Storage areas should be kept clean and free from any accumulation of combustible matter (such as paper) and any possible source of ignition should be removed.	Contractor	ECO / IECO	On-going	During construction phase
	18. It is recommended that the area used to fill the trucks should be covered with a non-permeable structure in order to prevent the occurrence of spillages / soil contamination.	Contractor	ECO / IECO	On-going	During construction phase
Hazardous waste management	1. Hazardous wastes must be separated from general wastes, stored within secondary containment in appropriate containers.	Contractor	ECO / IECO	On-going	During construction phase
	2. Proper storage facilities for the storage of hazardous / dangerous goods must be provided to prevent the migration of spillage into the soil and or groundwater.	Contractor	ECO / IECO	On-going	During construction phase
	3. Certificates / waybills of hazardous waste disposals are to be available on request as well as auditing purposes. This includes the removal of soil contaminated with hydrocarbons.	Contractor	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	4. Storage of hazardous substances and refuelling areas are to be bunded with an impermeable liner to protect groundwater quality and must comply with the relevant SANS codes.	Contractor	ECO / IECO	On-going	During construction phase
	5. Areas used for the storage of hazardous materials are to be clearly indicated as such.	Contractor	ECO / IECO	On-going	During construction phase
Hazardous and Flammable materials: Delivery	1. All deliveries (especially of hazardous nature) must be supervised.	Contractor	ECO / IECO	On-going	During construction phase
	2. Subcontractors and delivery companies should be informed of the delivery procedures and made aware of restrictions as to where materials may be stored.	Contractor	ECO / IECO	On-going	During construction phase
	3. Loads must be secured to prevent spillage during transportation thereof.	Contractor	ECO / IECO	On-going	During construction phase
	4. Hazardous substances are to be transported in sealed drums or bags	Contractor	ECO / IECO	On-going	During construction phase
Hazardous and Flammable	1. Limit cement and concrete mixing to single sites, where possible.	Contractor	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
materials: Cement and / or concrete mixing	2. No mixing allowed directly onto the ground.	Contractor	ECO / IECO	On-going	During construction phase
	3. All visible remains of excess material will be treated as hazardous waste.	Contractor	ECO / IECO	On-going	During construction phase
	4. Solid concrete waste may be treated as inert construction rubble. However, wet cement and liquid slurry and cement powder must be treated as hazardous waste	Contractor	ECO / IECO	On-going	During construction phase
Hazardous and Flammable materials: Gas Storage	1. All combustible materials are to be store at least 3 m from any gas storage areas. In case of any flammable or any other gas storage areas, open flames, welding and cutting operations, smoking, etc. shall be prohibited in or near the storage area.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	2. No gas will be delivered until the site is registered with local Fire Safety.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	3. Cylinders should always be stored in a well-ventilated area away from spark, flames or any source of heat or ignition.	Contractor / ECO	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
	4. Cylinders should always be handled, stored, used and transported in an upright position. It should not be dropped, dragged or rolled on their sides or allowed to skid. Cylinders that are too large to be carried shall be tilted and rolled on the rims of their foot rings or bases.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	5. Valves should be kept properly closed.	Contractor / ECO	ECO / IECO	On-going	During construction phase
Hazardous and Flammable materials: Chemicals, Grease and Oil Storage	1. Storage areas must be bunded and hard surfaced in order to protect groundwater quality.	Contractor	ECO / IECO	On-going	During construction phase
	2. Compliance with SANS codes and hazardous substances bylaws should be adhered to.	Contractor	ECO / IECO	On-going	During construction phase
	3. All lids must be properly sealed / closed to prevent Volatile Organic Compounds (VOCs) and other potentially harmful gaseous compounds from escaping.	Contractor	ECO / IECO	On-going	During construction phase
Hazardous and Flammable materials: Hydrocarbon	1. Spill kits are to be made permanently available at areas which have the potential to be subjected to spillage of hazardous substances and dangerous goods.	Contractor	ECO / IECO	On-going	During construction phase

Construction phase					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
spillages	2. Remediation of spillages must be conducted immediately and closed out within 24 hours.	Contractor	ECO / IECO / DWS / DESTEA	On-going	During construction phase
	3. No waste water or waste will be disposed of into the surrounding environment at any time. Water collected in bunded areas must be collected in containers and disposed of as hazardous waste.	Contractor	ECO / IECO	On-going	During construction phase
	4. Machinery will be kept maintained in line with manufactures specifications to minimise the risk of hydrocarbon spillages.	Contractor	ECO / IECO	On-going	During construction phase
	5. An incident reporting system will be implemented in order to ensure incidents, where spillages has occurred, are closed out and appropriate measures are taken to prevent further incidents.	Contractor	ECO / IECO	On-going	During construction phase
	6. Incidents must be reported to DWS within 24 hours.	Contractor	ECO / IECO / DWS	On-going	During construction phase
	7. Contaminated soil must be disposed of in a hazardous materials skip and removed to a licensed hazardous landfill facility by a licensed contractor.	Contractor	ECO / IECO	On-going	During construction phase

Operational Phase This phase consists of the use of the fuel depot and associated infrastructure. Maintenance and repair will be undertaken on the infrastructure when necessary.					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
Operational activities	1. Measures will be implemented to minimise the loss of water at any section (including activities associated with the wash-bays)	Applicant	DESTEA / DWS	On-going	During operational phase
	2. An action plan will be available and implemented immediately, in case pollution of soil / groundwater occurs to ensure that it is rectified as soon as possible. This includes the occurrence of leakages / spills.	Applicant	DESTEA / DWS	On-going	During operational phase
	3. Maintenance and repair will be undertaken on the infrastructure when necessary.	Applicant	DESTEA / DWS	On-going	During operational phase
	4. Establishment of alien vegetation will be monitored and alien species will be removed by hand or by an approved chemical before gestation thereof.	Applicant	DESTEA / DWS	On-going	During operational phase
	5. Regular visual inspections of the construction area, as well as the fuel tanks will be done to identify leakages. These will be attended to immediately in order to limit the occurrence of soil / groundwater pollution.	Applicant	DESTEA / DWS	Maintenance inspections should be undertaken every six months.	During operation

Operational Phase This phase consists of the use of the fuel depot and associated infrastructure. Maintenance and repair will be undertaken on the infrastructure when necessary.					
Objective	**Mitigation Measure**	**Executing Party**	**Monitoring Party**	**Timeframe**	**Project Stage**
	6. A monitoring system should be implemented to determine the occurrence of any fuel / oil spillages from the fuel tanks / wash-bay during the operational phase in order to ensure that no soil / groundwater pollution occur.	Applicant	DESTEA / DWS	Visual inspections at the fuel storage tanks should be undertaken daily. Repairs / cleaning of spills should be undertaken immediately. Maintenance inspections should be undertaken every six months.	During operation
	7. Proper mitigation measures should be implemented to limit the occurrence of fire outbreaks / spreading for veld fires to adjacent properties.	Applicant	DESTEA / DWS	Maintenance inspections should be undertaken every six months.	During operation

Decommissioning Phase					
It is not anticipated that the proposed project will cease in the nearby future. However, if decommissioning is decided upon, a rehabilitation plan will be developed and submitted for approval. The end-use of the area will be kept in mind during the compilation of the rehabilitation plan. Activities associated with the decommissioning phase will be limited to the rehabilitation of areas disturbed during the construction phase. All disturbed areas will be rehabilitated according to best practices. A rehabilitation plan will be developed, if it is decided to decommission the project before the cessation of the operation aspects of the proposed project. The rehabilitation plan will include management and mitigation measures to be implemented during the decommissioning of the project.					
Objective	**Mitigation Measure**	**Executing Party**	**Monitoring Party**	**Timeframe**	**Project Stage**
Rehabilitation	1. Temporary structures and office sites (if any) will be dismantled and removed after completion of the construction phase of the project.	Contractor	ECO / IECO	On-going	During construction phase
	2. All waste, equipment, materials, etc. used during construction will be cleared from the site. The contractors will ensure that the site is cleared and rehabilitated to the satisfaction of the ECO.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	3. An alien plant control and monitoring programme will be implemented.	Contractor	ECO / IECO	On-going	During construction phase
	4. The establishment of natural occurring vegetation will be encouraged at disturbed areas.	Contractor	ECO / IECO	On-going	During construction phase
	5. Re-vegetation of disturbed areas will be undertaken with site indigenous species.	Contractor	ECO / IECO	On-going	During construction

Decommissioning Phase It is not anticipated that the proposed project will cease in the nearby future. However, if decommissioning is decided upon, a rehabilitation plan will be developed and submitted for approval. The end-use of the area will be kept in mind during the compilation of the rehabilitation plan. Activities associated with the decommissioning phase will be limited to the rehabilitation of areas disturbed during the construction phase. All disturbed areas will be rehabilitated according to best practices. A rehabilitation plan will be developed, if it is decided to decommission the project before the cessation of the operation aspects of the proposed project. The rehabilitation plan will include management and mitigation measures to be implemented during the decommissioning of the project.					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
					phase
	6. Hydro-seeding will be implemented if the establishment of natural occurring vegetation does not occur within reasonable time.	Contractor / ECO	ECO / IECO	On-going	During construction phase
	7. After completion of the construction phase, a waterway monitoring program will be initiated that ensure that all are adequately rehabilitated.	Contractor	ECO / IECO	On-going	During construction phase
	8. Temporary concrete surfaces (if any) will be removed and compacted areas ripped.	Contractor	ECO / IECO	On-going	During construction phase
	9. Establishment of extensive alien species will be monitored.	Contractor	ECO / IECO	On-going	During construction phase

No-Go Option					
Objective	Mitigation Measure	Executing Party	Monitoring Party	Timeframe	Project Stage
Keeping the status quo - Not construct the fuel depot.	1. The applicant / other developers to construct a fuel depot at a nearby locality in order to accommodate the need of a fuel depot in the area.	Applicant / Other Developers	DESTEA / DWS	On-going	N/A

APPENDIX H13

EAP Declaration

DETAILS OF EAP AND DECLARATION OF INTEREST

	(For official use only)
File Reference Number:	
NEAS Reference Number:	
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010

PROJECT TITLE

The proposed expansion of a diesel depot on Portion 1 of Plot 42, Estoire, Bloemfontein

Environmental Assessment Practitioner (EAP):[1]	MDA		
Contact person:	Neil Devenish		
Postal address:	P.O. Box 100982, Brandhof, Bloemfontein		
Postal code:	9324	Cell:	
Telephone:	051 447 1583	Fax:	086 455 2568
E-mail:	neil@mdagroup.co.za		
Professional affiliation(s) (if any)			

Project Consultant:			
Contact person:			
Postal address:			
Postal code:		Cell:	
Telephone:		Fax:	
E-mail:			

ENVIRONMENTAL IMPACT MANAGEMENT
Private Bag X20801 Tel: 051-400 4817/19
Bloemfontein Fax: 051-400 4842/11
9300 E-mail: Mkhosana@dteea.fs.gov.za

4.2 The Environmental Assessment Practitioner

I, **Neil Devenish**, declare that –

General declaration:

- I act as the independent environmental practitioner in 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.

ENVIRONMENTAL IMPACT MANAGEMENT
Private Bag X20801 Tel: 051-400 4817/19
Bloemfontein Fax: 051-400 4842/11
9300 E-mail: Mkhosana@dteea.fs.gov.za

Disclosure of Vested Interest (delete whichever is not applicable)

- I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2010;

Signature of the environmental assessment practitioner:

MDA
Name of company:

2 September 2021
Date:

ENVIRONMENTAL IMPACT MANAGEMENT
Private Bag X20801 Tel: 051-400 4817/19
Bloemfontein Fax: 051-400 4842/11
9300 E-mail: Mkhosana@dteea.fs.gov.za

APPENDIX H_{12}

Specialist Declaration

DETAILS OF SPECIALIST AND DECLARATION OF INTEREST

	(For official use only)
File Reference Number:	
NEAS Reference Number:	
Date Received:	

Application for environmental authorisation, integrated environmental authorisation and waste management licence in terms of the-

(1) National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2014; and

(2) National Environmental Management Act: Waste Act, 2008 (Act No. 59 of 2008) and Government Notice 921, 2013

PROJECT TITLE

The proposed expansion of a diesel depot on Portion 1 of Plot 42, Estoire, Bloemfontein

Specialist:	Heritage Specialist (Dr Lloyd Rossouw)		
Contact person:	L. Rossouw		
Postal address:	P.O. Box 38806, Langenhovenpark, Bloemfontein		
Postal code:	9330	Cell:	0842505992
Telephone:	051 447 9609	Fax:	
E-mail:	Lloyd.rossouw@gmail.com		
Professional affiliation(s) (if any)	ASAPA PSSA		

Project Consultant:	MDA		
Contact person:	Neil Devenish		
Postal address:	P.O. Box 100982, Brandhof, Bloemfontein		
Postal code:	9324	Cell:	
Telephone:	051 447 1583	Fax:	086 455 2568
E-mail:	neil@mdagroup.co.za		

4.2 The specialist appointed in terms of the Regulations_

I, LLOYD ROSSOUW , declare that --

General declaration:

- I act as the independent specialist in 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 the specialist report relevant to this application, 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 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;
- all the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 48

Signature of the specialist:

Paleo Field Services

Name of company (if applicable):

01/09/2021

Date: