ENVIRONMENTAL IMPACTS AND EVALUATION

PLANNING PHASE IMPACTS:

1.1 **Negative impacts**

a) Primary impact component: Natural environment

Secondary impact component: Biological environment (vegetation and

fauna)

Potential impact:

The destruction of natural vegetation and temporary displacement of fauna from the area during initial investigations, due to induced vehicular traffic e.g. drilling rigs, surveyors' vehicles etc.

Significance/certainty: Probable, low. Spatial influence: Whole site.

Duration: Short to medium term.

Mitigation / Optimisation: The site proposed for the installation

of the diesel tank consists of a cleared area. There are no remaining natural vegetation on the site and this impact is therefore deemed to be

of low significance.

Discussion: Avifauna (Birds) may be disturbed

due to noise and activity. The immediate proximity of other available habitat means that this

impact is of low significance.

b) Potential impact:

Expectations amongst adjacent properties that the development will impact on their privacy

Significance/certainty: Low, definite.
Spatial influence: Immediate.
Duration: Long term.

Mitigation / Optimisation: The privacy of adjacent properties

should be respected.

Discussion: The premises are already being used

by M&M Transport. Adjacent property owners are used to all the activities associated with the surrounding industrial area.

c) Primary impact component: Social/ natural environment:

Secondary impact component: Community resources –

legal/political/heritage considerations

Potential impact:

Limitations on development such as existing servitudes, right of ways, mineral rights, heritage sites etc.

Significance/certainty: Moderate to high, definite.

Spatial influence: Immediate.

Duration: Long term.

Mitigation / Optimisation: Investigations regarding the above

limitations on development must be conducted before the construction

process starts.

Discussion: Any legal rights pertaining to the site

must be taken into consideration. All necessary approvals from authorities should be obtained and servitudes must be plotted prior to finalization of

the site development plan.

d) <u>Primary impact component:</u> Land use and landscape character <u>Secondary impact component:</u> General – aesthetic quality

Potential impact:

Potential for the proposed development to impact on the character of the surrounding area and the visual quality of the landscape

Significance/Certainty: Moderate, Possible.

Spatial influence: Local.

Duration: Medium term.

Mitigation / Optimisation: Investigate the surrounding area in

terms of adopted architectural styles and customs. The proposed development should as far as possible blend in with these styles.

The accuracy diam area consists

Discussion: The surrounding area consists of

industrial uses. Change of land use from vacant land to a diesel storage

facility will occur.

1.2 **Positive impacts**

 a) <u>Primary impact component:</u> Social environment <u>Secondary impact component:</u> Community social organization -Distribution of resources

TITLE: Impacts and Mitigation - Storage of	COMPILED BY:	DATE:	Page 2
Dangerous Goods (Diesel) on Portion 1 of Erf 6154	TEKPLAN	November 2021	
Pietersburg Ext.8	Environmental		

Potential impact:

High positive expectations regarding employment opportunities

Significance/certainty: Moderate to High, Probable.
Spatial influence: Local and Sub-Regional.
Duration: Medium to long term.

Mitigation / Optimisation: Local employment and procurement

should take place as far as possible

Discussion: Contractors should be required to

make use of local labour and

suppliers as far as possible

b) Primary impact component: Social-economic environment

Secondary impact component: Community social organization -

availability of services

Potential impact:

High positive expectations as to the creation of an accessible refueling facility for M&M Transport

Significance/certainty: Moderate to High, Probable.
Spatial influence: Local and Sub-Regional.
Duration: Medium to long term.

Mitigation / Optimisation: -

Discussion: The availability of an onsite refueling

facility would mean that the tucks of M&M Transport will no longer need to go to alternative filling stations/diesel depots located further

away in order to refuel.

.

CONSTRUCTION PHASE IMPACTS:

2.1 Introduction

Some of the most significant potential environmental impacts related to the proposed project will occur during the construction period of the project – this is due to the fact that elements of the natural environment will be permanently destroyed. During the construction of services, infrastructure and buildings, there will be impacts on the bio-physical environment.

With regards to birds, the mobility of these animals will ensure that they will move off on their own accord. Unnecessary removing of vegetation from areas which will not be utilised, will not take place as the property is cleared of all vegetation.

Concerns are likely to range around the impacts caused by;

 erosion of fragile and thin soils, on sloping land, if rehabilitation is not correctly implemented,

TITLE: Impacts and Mitigation - Storage	of COMPILED BY:	DATE:	Page 3
Dangerous Goods (Diesel) on Portion 1 of Erf 6	54 TEKPLAN	November 2021	
Pietersburg Ext.8	Environmental		

- nuisances (airborne dust, noise, traffic),
- risk of accidents and/or health risks to workers during site preparation, building construction,
- the security of adjacent properties (e.g. children),
- soil /ground water pollution,
- · poor management of construction materials and waste, and
- changes to the visual quality of the landscape and/or incompatibility with the landscape, architectural style and local architectural custom, etc.

2.2 **Negative impacts**

a) Primary impact component: Natural environment

<u>Secondary impact component:</u> Earth/land – compressive strength of soils

Potential impact:

Construction impacts on soils (upsetting of soil horizons through groundworks and/or compaction by vehicles)

Significance/Certainty: Low to moderate, Definite.

Spatial influence: Construction site and immediate

adjacent areas.

Duration: Long term.

Mitigation / Optimisation: Selective stripping of topsoil, subsoil

and overburden should take place. Stockpiling of earth (separately) should take place and be returned for backfilling in the correct soil horizon order. On all construction areas (e.g. material laydown areas), topsoil and subsoils should be protected from contamination/pollution (e.g. by fuel etc.). Stockpiling of removed earth should not occur in drainage lines or

impede surface water runoff.

Discussion: Control of all earthworks etc. is

essential. Potential contaminants such as fuel stores to be carefully sited with adequate spillage containment measures i.e. bund

walls.

Contractors' conditions of contract should make provision for the stripping and stockpiling of topsoil for later re-use. Topsoil is constituted by at least the top 150 mm of the natural soil strata and includes grass, roots and other organic matter. Areas to be cleared of topsoil should preferably only be those that will be covered by

TITLE: Impacts and Mitigation - Storage of		DATE:	Page 4
Dangerous Goods (Diesel) on Portion 1 of Erf 6154	TEKPLAN	November 2021	
Pietersburg Ext.8	Environmental		

paving, roads, structures and areas for material/equipment storage.

b) Primary impact component: Natural environment

Secondary impact component: Water (surface) - quality of surface

water

Potential impact:

Surface water contamination

Significance/Certainty: Low to moderate, Possible

Spatial influence: Site and nearby drainage/storm water

outflow areas.

Duration: Short to medium term.

Mitigation / Optimisation: Adequate sanitary facilities and

ablutions must be provided for

construction workers.

Discussion: The potential for the pollution of

surface water resulting from the construction activities is low. All collected storm water should be disposed off via the municipal system.

c) Primary impact component: Natural environment:

Secondary impact component: Water and Soil pollution

Potential impact:

Poor management of construction material and waste

Significance/Certainty: Medium, Possible

Spatial influence: Local.

Duration: Medium to long term.

Mitigation / Optimisation: Controlled use and or storage of all

fuels and chemicals during construction is recommended. Adequate fuel containment facilities should be used. Adequate sanitary facilities and ablutions must be provided for construction workers. Building waste (i.e. concrete etc.) should be used as fill material at the proposed project being developed.

Discussion: The potential degradation of

groundwater and soils are of concern – however it is unlikely to result from construction activities. Effects on the groundwater quality resulting from the envisaged development will be discussed in the section *on*

"Operational phase impacts".

	COMPILED BY:	DATE:	Page 5
Dangerous Goods (Diesel) on Portion 1 of Erf 6154	TEKPLAN	November 2021	
Pietersburg Ext.8	Environmental		

d) <u>Primary impact component:</u> Natural environment: Secondary impact component: Earth/land - erosion

Potential impact:

Soil erosion due to vegetation/site clearing. Significance/Certainty: Low, Possible.

Spatial influence: Construction site and areas

proposed for development

Duration: Medium to long term.

Mitigation / Optimisation: When soil is cleared, management

techniques to prevent water and wind erosion should be employed (e.g. seeding of topsoil and subsoil and stockpiles, brush packing and contour channels/berms) to reduce water velocity and divert surface

water runoff downslope.

Discussion: The area in general possesses a low

to medium risk for erosion (especially grass cover is removed for if construction purposes). Congregation of storm water should be avoided. During the planning and phases design building/construction works, provision should specifically be made for erosion control and storm water protection management (e.g. storm water discharge points, limiting the concentration of storm water and reducing the velocity of discharge).

e) Primary impact component: Natural environment:

Secondary impact component: Biological environment - vegetation

Potential impact:

Damage to flora due to site clearing.

Significance/Certainty: Low/Definite.

Spatial influence: Site and immediate adjacent areas.

Duration: Short term threat, but damage

permanent.

Mitigation / Optimisation: The site proposed for the installation

of the diesel tank is cleared of all vegetation. There are no remaining natural vegetation on the site and this impact is therefore deemed to be of

low significance.

Discussion: Potential for the significant alteration

of habitats is low, due to the disturbed

state of the site.

TITLE: Impacts and Mitigation - Storage of	COMPILED BY:	DATE:	Page 6
Dangerous Goods (Diesel) on Portion 1 of Erf 615	TEKPLAN	November 2021	
Pietersburg Ext.8	Environmental		

f) Primary impact component: Natural environment

<u>Secondary impact component:</u> Biological environment - vegetation

Potential impact:

Plant collection, utilising of trees for firewood, etc. by construction workers from surrounding areas

Significance/Certainty: Low, Possible.

Spatial influence: Construction site and immediate

surrounding areas

Duration: Short to medium term.

Mitigation / Optimisation: Effective site control and monitoring

by site engineer should take place to insure that workers don't cut down any trees from the surrounding areas. No fires should be allowed on site

Discussion: No fires should be allowed on site except in designated areas. Access

to site should be controlled.

g) <u>Primary impact component:</u> Natural environment:

Secondary impact component: Biological environment - natural

communities
Potential impact:

Loss of habitat where the development will be located

Significance/Certainty: Low, definite.

Spatial influence: Local.

Duration: Medium term (permanent loss of

habitat).

Mitigation/Optimisation:

Discussion: The site is already disturbed and it

located in a build-up area (Laboria

industrial area).

h) <u>Primary impact component:</u> Natural environment:

Secondary impact component: Biological environment - animals

Potential impact:

Hunting and capture of birds and other fauna by construction workers (from surrounding areas)

Significance/Certainty: Low, Possible.
Spatial influence: Site and local.
Duration: Short term.

Mitigation / Optimisation: Capture or snaring of birds or other

fauna must be strictly prohibited on site (and surrounding areas) especially w.r.t. contractors

employees.

Discussion: Birds might be snared - this must be

prevented. Fauna (especially

TITLE: Impacts and Mitigation - Storage of	COMPILED BY:	DATE:	Page 7
Dangerous Goods (Diesel) on Portion 1 of Erf 6154	TEKPLAN	November 2021	
Pietersburg Ext.8	Environmental		

avifauna) may be temporarily displaced from the area during construction due to the noise and activity. The immediate proximity of other available habitat means that this impact is of low significance.

i) Primary impact component: Land use and landscape character Secondary impact component: General – aesthetic quality Potential impact:

Visual impact of construction activities and infrastructure installation

Significance/Certainty: Moderate to High, Definite.

Spatial influence: Local.

Duration: Medium term.

Mitigation / Optimisation: The property is surrounded by a brick

wall which will assist the lessen the visual impact of construction activities. It should be attempted to let all visible infrastructure blend in with the surrounding landscape, either through building shape, painting and/or

staining.

Discussion: Change of land use from a vacant

stand to a construction site will occur.

j) <u>Primary impact component:</u> Existing pollution, risks and/or hazards and health & safety

Secondary impact component: Existing pollution/environmental

degradation - noise, vibration &

lighting

Potential impact:

Impact of construction noise on adjacent properties.

Significance/Certainty: Moderate, Possible.

Spatial influence: Construction site and immediate

adjacent areas.

Duration: Medium term.

Mitigation / Optimisation: Keep residents of surrounding

properties informed if any unusually noisy activities are planned. Noise impacts are reduced over distance at a rate of 1db (decibel) per 13 metres. Working hours should be limited to 07h00 and 18h00 (Mondays to

Saturdays only).

TITLE: Impacts and Mitigation - Storage of	COMPILED BY:	DATE:	Page 8
Dangerous Goods (Diesel) on Portion 1 of Erf 6154	TEKPLAN	November 2021	
Pietersburg Ext.8	Environmental		

k) <u>Primary impact component:</u> Existing pollution, risks and/or hazards and health & safety

<u>Secondary impact component:</u> Existing pollution/environmental

degradation – dust Potential impact:

Impact of air pollution - mainly dust

Significance/Certainty: Moderate/Possible.

Spatial influence: Construction site and immediate

adjacent areas

Duration: Short to medium term.

Mitigation / Optimisation: Damping down of cleared areas

should take place.

Control measures such as wetsuppression (watering) should be implemented to reduce dust arising from construction activities. Such requirements should be included into the contracts of the individual contractors that will be performing

construction activities.

The legal requirements of the Atmospheric Pollution Provision Act (Act 45 of 1965) and limitations set by the National Air Pollution Advisory

Committee must be adhered to.

Activities that are to be conducted on the site of application, must ensure effective management so as to minimise air pollution, both during the construction and operational phases.

 Primary impact component: Existing pollution, risks and/or hazards and health & safety

<u>Secondary impact component:</u> Risks & hazards – Effects in the workplace

Potential impact:

Potential injury to construction workers

Significance/Certainty: Moderate, Possible

Spatial influence: Local

Duration: Short and medium term

Mitigation/Optimisation: Implementation of safety measures

and work procedures and first aid facilities. Medical screening of

employees should take place.

m) <u>Primary impact component:</u> Social Environment <u>Secondary impact component:</u> Cultural resources Potential impact:

TITLE: Impacts and Mitigation - Storage of	COMPILED BY:	DATE:	Page 9
Dangerous Goods (Diesel) on Portion 1 of Erf 6154	TEKPLAN	November 2021	_
Pietersburg Ext.8	Environmental		

Damage to heritage resources due to construction.

Significance/Certainty: Low to Moderate/Probable.
Spatial influence: Immediate adjacent areas.
Duration: Short to medium term.

Mitigation / Optimisation: If any heritage resource are

discovered during construction (e.g. during excavations), construction should stop and the relevant authority

should be notified.

Discussion: -

n) <u>Primary impact component:</u> Social environment

Secondary impact component: Direct project inputs – Public safety

Potential impact:

Unsocial activities at the construction site (e.g. crime)

Significance/Certainty Moderate, Possible

Spatial influence: Site and immediate surrounding

areas

Duration: Short term

Mitigation/Optimisation: The implementation of security at the

construction camp/material laydown area is necessary. Only labourers and authorised persons should have access to construction

camps/material laydown areas.

Discussion: Unfenced construction

camps/material laydown areas may present a greater security risk - such fenced/secured. sites should be Prostitution. drinking, crime. vandalism etc. generally only arise where labourers are away from home. If the majority of the labour force is recruited locally, the incidence of prostitution and other un-social activities could he reduced. Temporary housing of construction workers on the site should be limited.

o) <u>Primary impact component:</u> Infrastructure and community services <u>Secondary impact component:</u> Infrastructure services – transport (local roads)

Potential impact:

Construction traffic and access.

Significance/Certainty: Moderate, Probable.

Spatial influence: Local.

Duration: Medium term.

TITLE: Impacts and Mitigation - Storage of	COMPILED BY:	DATE:	Page 10
Dangerous Goods (Diesel) on Portion 1 of Erf 6154	TEKPLAN	November 2021	
Pietersburg Ext.8	Environmental		

Mitigation / Optimisation: Construction trucks/vehicles should

avoid traveling unnecessarily through any residential areas or over private

land.

Discussion: Construction vehicles will be moving

into and out of the site, onto public roads, thereby potentially causing congestion, poor traffic flow and poor access. Adverse impacts construction traffic can be minimised through good planning by the contractor and controlled site activities. Construction routes should be clearly defined and sign posted. Working hours to be controlled by site

engineer.

2.3 **Positive Impacts**

a) <u>Primary impact component:</u> Socio Economic environment <u>Secondary impact component</u>: Direct project inputs - employment Potential impact:

Temporary employment creation

Significance/Certainty: High, Definite.

Spatial influence: Local and sub-region. Duration: Short to medium term.

Mitigation / Optimisation: Where appropriate, the use of labour

intensive construction methods should take place. Where possible, training of labour should take place to improve benefits to individuals beyond this project. Use of emerging contractors should take place where

possible.

b) Primary impact component: Socio Economic environment

<u>Secondary impact component:</u> Indicators of well being – access to resources

Potential impact:

Supplies and materials (local procurement)

Significance/Certainty: High, Definite.

Spatial influence: Local, regional and national.

Duration: Short to medium term.

Mitigation / Optimisation: Sourcing and purchase of supplies

and materials locally or within the region (whenever possible) should

take place.

TITLE: Impacts and Mitigation - Storage of	COMPILED BY:	DATE:	Page 11
Dangerous Goods (Diesel) on Portion 1 of Erf 6154	TEKPLAN	November 2021	
Pietersburg Ext.8	Environmental		

3 OPERATIONAL PHASE IMPACTS

3.1 Introduction

The following aspects related to the proposed diesel storage facility have been identified as being potentially significant during the operational phase;

- Potential for soil /ground water pollution from the installation of the proposed diesel tank and associated infrastructure?
- Will there be additional pressure on the existing infrastructure/services (i.e. roads/transport)?
- Is a contingency plan/methodology in place for when emergencies occur regarding services/infrastructure (e.g. sanitation infrastructure failure, solid waste collection, health emergencies, fire services etc.)?
- Impact of the propose development on adjacent properties and other businesses (local economy).

3.2 **Negative impacts**

a) Primary impact component: Natural Environment

Secondary impact component: Pollution to land and water

Potential impact:

Generated resulting in pollution of land(soil) and water (quality decrease)

Significance/Certainty: High, Possible.
Spatial influence: Site and local.
Duration: Long term.

Mitigation/Optimisation: Waste prevention, waste minimisation

and impact minimisation.

Discussion: Management and intervention must

focus on the physical, social and institutional factors which contribute

to the water quality effects.

Management should focus on the processes that result in the production and delivery of waste at the diesel re-fueling facility (and associated activities i.e. wash bay drivers ablutions etc.) and on the relevant waste streams (sewage, grey water, stormwater and solid waste).

TITLE: Impacts and Mitigation - Storage of	COMPILED BY:	DATE:	Page 12
Dangerous Goods (Diesel) on Portion 1 of Erf 6154	<i>TEKPLAN</i>	November 2021	
Pietersburg Ext.8	Environmental		

Care should be taken to maintain and operate services effectively.

b) <u>Primary impact component</u>: Natural Environment

Secondary impact component: Pollution to land and water

Potential impact:

Leakage from underground diesel tank resulting in pollution of land(soil) and underground water

Significance/Certainty: High, Possible.
Spatial influence: Site and local.
Duration: Long term.

Mitigation/Optimisation:

All containment structures for polluted water should be lined to prevent seepage and pollution of groundwater.

Daily reconciliation of the volumes of diesel should be done to ensure early detection of a possible leak.

Water samples from an appropriately located on-site borehole should be monitored periodically during the construction and operational phases of the proposed development, in order to establish whether the quality subterranean water is being affected at all. It is advised that a monitor borehole be drilled on site downstream of the diesel storage tank. A borehole monitoring schedule should be implemented as indicated in Section 9 of the Hydrogeological Evaluation Report (Appendix D). Monitored must include water levels and sampling to test the water chemistry, microbiology (if used as drinking water), BTEX and TPH. Appropriate measures should be implemented to establish the sources of pollution and the necessary remedial actions should be taken to eliminate such sources.

Leakage detectors and odour detectors should be installed. Checking for product losses should take place regularly. Any losses should be reported to the relevant authorities within 14 days and the necessary remedial action taken.

TITLE: Impacts and Mitigation - Storage of Dangerous Goods (Diesel) on Portion 1 of Erf 6154 Pietersburg Ext.8

COMPILED BY:
TEKPLAN
Environmental

DATE: November 2021 Page 13

Discussion:

Water is undrinkable when petroleum hydrocarbons exceed 10ppm/mg/l. To prevent contamination of soils and groundwater, all tank and pipework installations should be done in accordance with the SABS 10089-3 code (The installation of underground storage tanks, pumps/dispensers and pipework at service stations and consumer installations).

c) <u>Primary impact component</u>: Natural Environment

Secondary impact component: Pollution to land and water

Potential impact:

Contaminated run-off from the concrete re-fueling area can cause pollution of soils and surface water

Significance/Certainty: High, Possible.
Spatial influence: Site and local.
Duration: Long term.

Mitigation/Optimisation:

Occasional small spillages onto the concrete re-fuelling area will occur from time to time. This may lead to contamination of the surrounding subsoils along the periphery of the paved areas. Groundwater can also potentially be contaminated spillages at the pump island. If washings from the re-fuelling area containing VOC's and hydrocarbons reach natural drainage courses, it could cause pollution, this should be avoided through the installation of suitable interceptors. The following precautionary measures are therefore recommended:

- Sealing of the re-fuelling area and other areas where fuel products are handled to prevent infiltration of petroleum products into the soil underlying the site.
- Storm water draining from the surfaced areas should be collected in a sealed sump to be treated or removed.
- Preventative measures should be installed to prevent the storm

TITLE: Impacts and Mitigation - Storage	of COMPILED BY:	DATE:	Page 14
Dangerous Goods (Diesel) on Portion 1 of Erf 615	4 TEKPLAN	November 2021	
Pietersburg Ext.8	Environmental		

water or other liquids draining into the natural soil.

- Surface runoff and runoff volumes must be calculated and proper separation facilities installed.
- The free product and polluted water must be removed from site by a licensed contractor.

Discussion: -

d) <u>Primary impact component:</u> Existing pollution, risks and/or hazards and health & safety

Secondary impact component: Existing pollution/environmental

degradation – noise Potential impact:

Impact of noise on adjacent properties.

Significance/Certainty: Moderate, Possible.

Spatial influence: Site and immediate adjacent areas.

Duration: Long term.

Mitigation / Optimisation: Excessive noise from the labour

force (fuel attendants) and truck

drivers should be avoided.

Discussion: The surrounding area is currently

exposed to ambient traffic noise and noise from other activities due to the fact that the site is located in the

Laboria industrial area.

e) Primary impact component: Socio-economic environment

<u>Secondary impact component:</u> infrastructure – roads, sanitation treatment plant etc.

Potential impact:

Added pressure on engineering infrastructure and local services

Significance/Certainty: Low to moderate, Possible

Spatial influence: Immediate. Duration: Long term.

Mitigation / Optimisation: -

Discussion: The site is located on an existing

industrial stand (and premises of M&M Transport) in the Laboria industrial area and is already connected to the existing services

(water, electricity & sewerage).

TITLE: Impacts and Mitigation - Storage of	COMPILED BY:	DATE:	Page 15
Dangerous Goods (Diesel) on Portion 1 of Erf 6154	TEKPLAN	November 2021	
Pietersburg Ext.8	Environmental		

f) Primary impact component: Social Environment

Secondary impact component: Risks and/or hazards and health &

safety

Potential impact:

Increase of atmospheric emissions (i.e. carbon monoxide

concentrations).

Significance/Certainty: Moderate, Possible.
Spatial influence: Site and local.
Duration: Long term.

Mitigation/Optimisation: Leakage detectors and odour

detectors should be installed. Checking for product losses should take place regularly. Any losses should be reported to the relevant authorities within 14 days and the necessary remedial action taken.

Discussion: Carbon monoxide prevents blood

from circulating oxygen through the body and can cause numerous health disorders. This impact is deemed potentially significant. Increased VOC levels can also induce negative health effects on

humans.

g) Primary impact component: Socio Economic environment

Secondary impact component: Property values

Potential impact:

Impact on adjacent property values that might result from the presence of the proposed development

Significance/Certainty: Moderate, Possible.

Spatial influence: Local.

Duration: Long term.

Mitigation / Optimisation: -

Discussion: The impact on adjacent property

values is not foreseen to be significant as the site is located in an industrial area with other existing diesel depots occurring in the area.

h) <u>Primary impact component:</u> Infrastructure and community services Secondary impact component: Infrastructure services – transport (local

roads)

Potential impact:

Induced traffic could affect existing pedestrian and vehicle traffic patterns (i.e. cause congestion).

Significance/Certainty: Low-Moderate, Probable.

Spatial influence: Local.

TITLE: Impacts and Mitigation - Storage of	COMPILED BY:	DATE:	Page 16
Dangerous Goods (Diesel) on Portion 1 of Erf 6154	TEKPLAN	November 2021	
Pietersburg Ext.8	Environmental		

Duration: Medium term.

Mitigation / Optimisation: Entrances to the site should be

designed according to traffic engineering specifications and be approved by the relevant authorities.

Discussion: Human safety should be a high

priority for the developer. The significance of this potential impact is deemed to be relatively small due to the fact that the site is already being

the fact that the site is already being used by the trucks of M&M Transport and is located in Antimoon Street, Laboria (there is already heavy vehicle movement adjacent to the site

during most hours of the day). The entrances to and exits from the site

should be designed to facilitate

effective traffic flow.

i) Primary impact component: Land use and landscape character Secondary impact component: General – aesthetic quality Potential impact:

Changes to the visual quality of the landscape

Significance/Certainty: Low-Moderate, Possible.

Spatial influence: Local.

Duration: Medium term.

Mitigation / Optimisation: Colour choices and patterns of

buildings (i.e. Drivers Ablution) should be timeless in that they should not become outdated. Preferably colours associated with the natural surroundings e.g. brown, grey green, buff or olive should be used where

possible.

Colours should be matt, not glossy so as to reduce reflection and glare from

surfaces.

Building/structure form:

Building form should be broken by roof overhangs and steps in facades. This will create shadow lines which, in turn, assist in the mottling or breaking up of the visible building form

up of the visible building form.

The visual quality of the diesel storage and associated infrastructure is typically low and is characterized

large open and paved areas.

Lighting:

TITLE: Impacts and Mitigation - Storage of	COMPILED BY:	DATE:	Page 17
Dangerous Goods (Diesel) on Portion 1 of Erf 6154	TEKPLAN	November 2021	
Pietersburg Ext.8	Environmental		

Selective and sensitive location and design of the lighting requirements for the facility is a necessity. A possible alternative is to reduce the height at which floodlights are fixed and to identify zones of high and low lighting requirements. Lights should be focussed inward rather than outward.

Landscaping;

Denuded areas must be rehabilitated as soon as possible after the completion of construction.

3.3 Positive Impacts

a) Primary impact component: Socio Economic environment Secondary impact component: Demographic aspect Potential impact:

Investment of knowledge and profits into the community and increase in skills level of the population

Significance/Certainty: High, Possible.

Spatial influence: Local.

Duration: Long term.

Mitigation / Optimisation: -

Discussion: Local people will be appointed to

work at the diesel pump (operating of the pump for re-fuelling and general cleaning of the site) which leads to job creation. Secondary uses employment will also be created e.g. for the maintenance of

infrastructure/services.

b) <u>Primary impact component:</u> Socio Economic environment <u>Secondary impact component:</u> Financial implications Potential impact:

Job creation and new economic opportunities (long term) (e.g. artisans for maintenance of diesel storage infrastructure and associated buildings)

Significance/Certainty: High, Definite.

Spatial influence: Local.

Duration: Long term.

Mitigation / Optimisation: -

TITLE: Impacts and Mitigation - Storage of	COMPILED BY:	DATE:	Page 18
Dangerous Goods (Diesel) on Portion 1 of Erf 6154	TEKPLAN	November 2021	
Pietersburg Ext.8	Environmental		

c) <u>Primary impact component:</u> Socio Economic environment <u>Secondary impact component:</u> Financial implications Potential impact:

The proposed diesel re-fuelling facility will provide a convenient and accessible service to the trucks of M&M Transport

Significance/Certainty: High, Definite.

Spatial influence: Local.

Duration: Long term.

Mitigation / Optimisation: -

Discussion: The proposed diesel re-fuelling

facility will provide a convenient and accessible re-fuelling facility for the trucks of M&M Transport and they will no longer need to go to alternative filling stations/diesel depots located further away in order

to re-fuel.

4. DECOMMISSIONING PHASE IMPACTS

There is at present no intention or indication of future intentions, to decommission the facility. Should decommissioning occur then impacts resulting from such may include:

- Noise pollution from machinery decommissioning existing infrastructure,
- Dust and surface disturbance due to the digging of trenches to remove the infrastructure,
- Removal and disposal of decommissioned equipment and waste (e.g. Concrete),
- Loss of employment opportunities,
- M&M Transport will be inconvenienced as their trucks will need to go to alternative filling stations/diesel depots to re-fuel.