



KANTEY & TEMPLER
CONSULTING ENGINEERS

ESTABLISHED 1953

SITE SENSITIVITY VERIFICATION REPORT

**Proposed Increase in Petroleum Products Storage
Capacity at the MOOV Fuel and Lubricant Oils Storage and
Distribution Facility in Kraaifontein Industria**



JUNE 2025

K&T PROJECT REFERENCE: 17014C

REVISION 0



KANTEY & TEMPLER

CONSULTING ENGINEERS

ESTABLISHED 1953

Details of this report

Client Name	MOOV Energy (Pty) Ltd
Document Title	Site Sensitivity Verification Report for the Proposed Increase in Petroleum Products Storage Capacity at the MOOV Fuel and Lubricant Oils Storage and Distribution Facility in Kraaifontein Industria
K&T Project Reference	17014C
File Name	17014C_MOOV Energy_Kraaifontein_SSVR_June 2025 (Rev 0)
Prepared By	Carli Costa
Reviewed By	Seoras Graham

Report Revision Record

Revision	Date	Description
A - D	April – June 2025	Draft Site Sensitivity Verification Reports
0	June 2025	Final Submitted Site Sensitivity Verification Report

This report has been prepared by Kantey & Templer (Pty) Ltd, with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

For and on behalf of Kantey & Templer (Pty) Ltd

For and on behalf of	
Kantey & Templer (Pty) Ltd	
Approved by:	<u>Seoras Graham</u>
Signed:	
Position:	<u>Executive Associate</u>
Date:	<u>30 June 2025</u>

Copyright

This report:

- (a) Enjoys copyright protection and the copyright vests with Kantey & Templer (Pty) Ltd, unless otherwise agreed to in writing.
- (b) May not be reproduced or transmitted in any form or by any means whatsoever to any person without the written permission of the copyright holder.

MOOV ENERGY KRAAIFONTEIN

TABLE OF CONTENTS

ITEM	PAGE
1. Introduction.....	1
2. Purpose of the report.....	3
3. Motivation Agreeing or Disputing the Screening Tool Report	4
4. Conclusion.....	10

LIST OF FIGURES

Figure 1: Locality of the Kraaifontein Depot.....	2
Figure 2: Image depicting depression wetland obtained from the Cape Farm Mapper.....	6

1. INTRODUCTION

Kantey & Templer (Pty) Ltd was appointed by MOOV Energy (Pty) Ltd (MOOV Energy), as independent environmental consultants, to undertake the Environmental Impact Assessment process required for the increase in petroleum products storage capacity at the MOOV Fuel and Lubricant Oils Storage and Distribution Facility in Kraaifontein Industria.

MOOV Energy, established in 2013, is the Astron Energy Western Cape Branded Marketer supplying petroleum products to 90 service stations and close to 3000 commercial clients in the Western Cape region. Since 2018, MOOV Energy has been operating a diesel storage and distribution facility on property described as Erf 21594, 13 Kiaat Street, Kraaifontein Industria (see Figure 1).

The facility currently consists of 2 x 23 m³ aboveground diesel storage tanks (denoted Tank 1 and Tank 2) housed in a bund, 2 x 1 hose diesel pumps, a truck workshop, an oil drum store and offices. Tank 1 was installed in 2018 and Tank 2 was installed in 2022. On the project site MOOV Energy stores approximately 500 m³ of oil/lubricants (including degasol engine cleaner and ethanol solution) as well as LPG storage of 1.5 tonnes.

MOOV Energy plans on increasing their on-site storage capacity of petroleum products by an additional 2 454 m³ to:

- 1) improve security of supply,
- 2) optimise logistics efficiency (fuel trucks can load directly at the depot),
- 3) allow for increased flexibility to ad hoc/emergency fuel requests, and
- 4) reduce waiting time at the refinery gantry.

The project will therefore entail the removal of the two existing diesel Aboveground Storage Tanks (ASTs) with a combined capacity of 46 m³ and installation of three new ASTs with a combined capacity of 2 500 m³, with the configuration as follows:

- 2 x 1 000 m³ aboveground tanks for the storage of 50 ppm diesel; and
- 1 x 500 m³ aboveground tank for the storage of ULP 95.

The existing diesel tanks will become obsolete, own use filling shall be taken from the new diesel storage tanks.

The proposed development triggers Activities 34 and 51 as set out in Listing Notice 1 of the Environmental Impact Assessment (EIA) Regulations, 2014 (as amended), in terms of the NEMA (Act No. 107 of 1998) as amended and will follow a Basic Assessment Process.

The proposal will not result in an increase to the development footprint of the storage and distribution facility, with all anticipated works limited to the existing site.

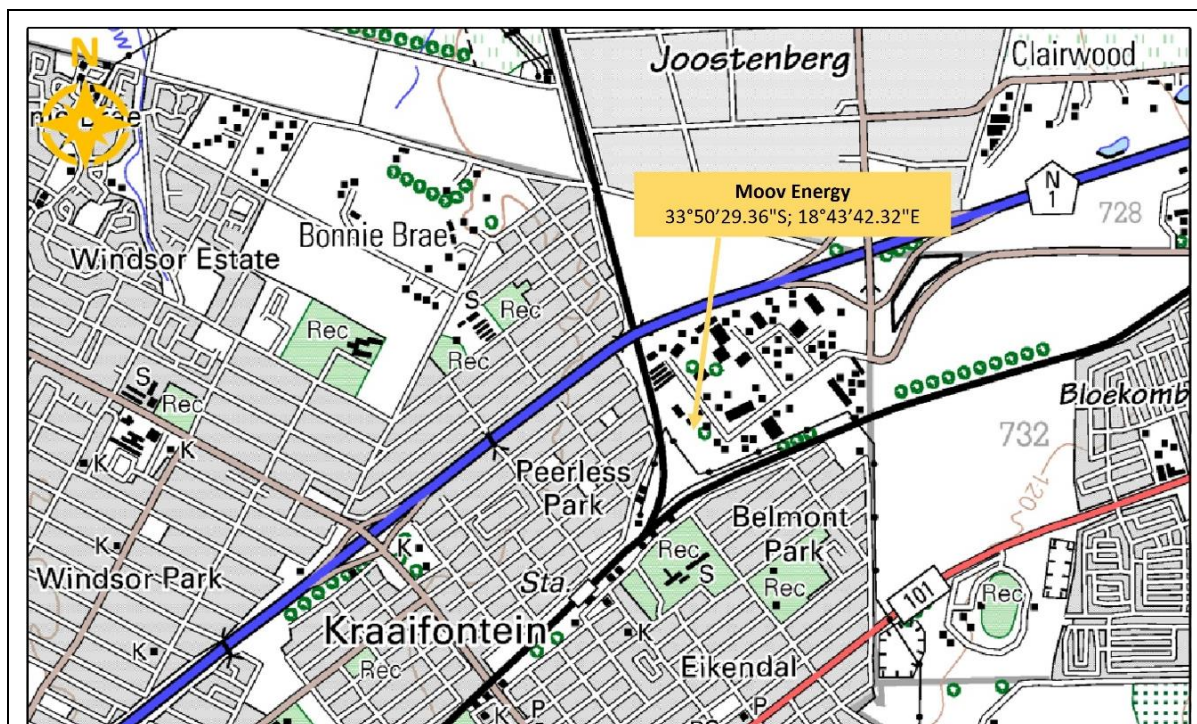


Figure 1: Locality of the Kraaifontein Depot.

2. SITE VERIFICATION PHOTOS



3. PURPOSE OF THE REPORT

The report generated by the national web-based environmental screening tool for the EIA application (see attached as Appendix A) identified several environmental sensitivities in the proposed development footprint. The table below provides a summary of the development site environmental sensitivities as identified in the screening report.

Theme	Sensitivity Rating			
	Very High	High	Medium	Low
Agriculture		x		
Animal Species			x	
Aquatic Biodiversity	x			
Archaeological and Cultural Heritage				x
Civil aviation		x		
Defence			x	
Palaeontology				x
Plant species				x
Terrestrial Biodiversity	x			

In terms of the classification of the activity and potential impacts on the identified environmental sensitivities, the following specialist assessments were identified in the screening report for inclusion in the assessment report.

- Agricultural Impact Assessment
- Archaeological and Cultural Heritage Impact Assessment
- Palaeontology Impact Assessment
- Terrestrial Biodiversity Impact Assessment
- Aquatic Biodiversity Impact Assessment
- Hydrology Assessment
- Noise Impact Assessment
- Traffic Impact Assessment
- Geotechnical Assessment
- Socio-Economic Assessment
- Plant Species Assessment
- Animal Species Assessment

According to the Procedures for the Assessment and Minimum Criteria for Reporting on identified Environmental Themes in terms of Sections 24(5) (a), (h) and 44 of the NEMA, the current use of the land and the environmental sensitivity of the project site as identified in the Screening Tool Report must be verified.

According to the Assessment Protocol for specialist involvement, if any part of the proposed development falls within an area of high or very high sensitivity, the requirements prescribed for such sensitivity must be followed.

This report has therefore been compiled to dispute the sensitivity ratings identified in the Screening Tool Report and provide a rationale for the exclusion of the identified specialist studies to be undertaken as part of this environmental impact assessment process.

4. MOTIVATION AGREEING OR DISPUTING THE SCREENING TOOL REPORT

- a) The following specialist studies, as identified by the Screening Tool Report, will not be carried out:

Agricultural Impact Assessment

The site is indicated as having a high sensitivity rating for the Agriculture Theme due to having moderate land capability. Based on the City of Cape Town (CoCT) Northern District Spatial Development Framework Map, the project site is designated industrial use and falls within the CoCT's delineated urban edge. The site is completely transformed and zoned General Industry 2, which aligns with the spatial planning framework of the CoCT. The site and the surrounding erven contain buildings and other infrastructure (including an electricity substation and railway line). The project site's surrounding area is predominantly zoned for industry and transport use in terms of the municipal town planning scheme. No agricultural practices are noted within the Kraaifontein industrial area.

The impact can therefore be considered negligible and thus no Agricultural Impact Assessment will be required.

Sensitivity Scoring	Sensitivity Features
Medium	Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate

Archaeological and Cultural Heritage Impact Assessment

The site is indicated as having a low sensitivity rating for the Archaeological and Cultural Heritage Theme. The site is already transformed, and the proposed increase in storage capacity will have no impact on heritage resources. The impact by the proposed activity on the Archaeological and Cultural Heritage Theme can therefore be described as negligible. No Archaeological and Cultural Heritage Impact Assessment will be required. A heritage screener and Notice for Intent to Develop (NID) was however submitted to Heritage Western Cape (HWC).

According to the Heritage Screener undertaken by CTS Heritage dated May 2025, "it is unlikely that the proposed development will impact on significant heritage resources."

The subsequent response received from HWC confirmed "there is no reason to believe that the proposed increase in petroleum products storage capacity at the Moov fuel and lubricants facility in Kraaifontein Industria will impact on heritage resources."

Sensitivity Scoring	Sensitivity Features
Low	Low sensitivity

Palaeontology Impact Assessment

The site is indicated as having a low sensitivity rating for the Paleontological Theme as it contains features with a low paleontological sensitivity. SAHRIS' Paleontological Sensitivity Map was checked, and the site was verified to be of low palaeontological sensitivity. Based on the extent of the proposed activity, it is envisaged that the proposed increase in storage capacity will have no impact on palaeontological material. However, should any paleontological material be discovered during excavation work, all construction works must be stopped immediately, and HWC must be notified without delay. Fossil finds procedure to be included in the Environmental Management Programme. No Palaeontology Impact Assessment would be required.

Sensitivity Scoring	Sensitivity Features
---------------------	----------------------

Low	Features with a low paleontological sensitivity
-----	---

Terrestrial Biodiversity Assessment

The site is indicated as having a very high sensitivity rating for the Terrestrial Biodiversity Theme. This is due to it being located within the Boland Strategic Water Source Area (SWSA) and falling within the Cape Flats Sand Fynbos (CFSF) vegetation type.

Sensitivity Scoring	Sensitivity Features
Very High	SWSA (SW)_Boland
Very High	CR_Cape Flats Sand Fynbos

SWSA:

SWSAs are natural source areas for water that supply disproportionately large volumes of water per unit area and that are considered of strategic significance for water security from a national planning perspective, either for surface water, groundwater or both.

The National Spatial Development Framework (NSDF) (DALRRD and DPME, 2021) recommends that land-uses that reduce run-off or stream flow or affect water quality should be avoided in SWSAs, that wetlands in SWSAs should be kept in good condition or rehabilitated, that invasive alien plants in SWSAs should be cleared, that water-related ecosystems and their associated catchments and landscapes be maintained in a natural or at least semi-natural state, and that the use and management of land, rivers and wetlands in SWSAs does not compromise their water production function.

The main pressures to SWSAs include the alteration of flow through dams and abstraction of water, removal of natural vegetation along riverbanks or wetlands through cultivation, mining or urban development, growth and spread of invasive alien species, inadequate grazing management, and pollution. Pressures on the ecological condition of SWSAs are often linked to intensive land uses such as cultivation, urban development and mining. This project does not involve these activities and will not result in fragmentation of the landscape as it is proposed to take place on the existing site's footprint. Additionally, the project is unlikely to significantly impact surface water and groundwater quality with the proposed mitigation measures in place.

CFSF:

CFSF is statutorily conserved as small patches in Table Mountain National Park at Tokai, and at Rondebosch Common, Bracken Nature Reserve and Blaauwberg Conservation Area. According to the *Cape Flats Sand Fynbos* Biodiversity Fact Sheet No. 6 of the City of Cape Town, CapeNature, SANBI, and South African National Parks, "Some good stands that have not been proclaimed are found at Milnerton Racecourse, Kenilworth Racecourse, 6 Base Ordinance Depot and Platteklouf. Very few additional areas are available that could conserve CFSF - the only potential area that could protect an ecologically representative patch is located east of Blaauwberg Hill, towards the N7." The project site does not fall within any of these areas. CFSF is mismanaged by mowing, fire protection and by alien plant invasion. None of these activities will take place for the project.

Additionally, the site is already transformed and devoid of any flora. Therefore, it was determined that the project site no longer supports a suitable habitat for fauna species of concern. The impact could consequently be described as negligible. A Terrestrial Biodiversity Assessment was deemed unnecessary for the proposal.

Aquatic Biodiversity Impact Assessment

As mentioned above, the study site is located within the Boland Strategic Water Source Area. The site is, however, completely transformed for its current use with no water features present on-site. A depression wetland is located directly adjacent to the site within a shared ESKOM and Transnet

servitude. This wetland is not registered as a NFEPA¹-wetland and appears to be a permanent wetland which has vegetation comprising of both alien and indigenous vegetation (i.e., reeds, sedges, lilies and grasses). The area is largely transformed and contains a high degree of pollution/litter visible within wetland. Consequently, the wetland is assumed to offer limited to no ecological functionality. The wetland receives stormwater inputs from upslope developments, and the drainage therein is impacted by the downgradient railway line. A Wetland Assessment will be undertaken to confirm this.

The proposed activity is unlikely to have any impact on the water resources in the surrounding area. The impact by the proposed activity on the Aquatic Biodiversity Theme can therefore be considered to be negligible. An Aquatic Biodiversity Impact Assessment was not deemed necessary for this proposal, as no freshwater systems, other than the depression wetland adjacent to the site, are present on or within a 500 m radius of the project site.

Sensitivity Scoring	Sensitivity Features
Very High	SWSA (SW)_Boland



Figure 2: Image depicting depression wetland obtained from the Cape Farm Mapper.

Noise Impact Assessment

The project site is developed (as a diesel storage and distribution facility) within a built-up, well-established industrial area of Kraaifontein, with the nearest residential area 109 m from the project site. The increase in storage capacity of petroleum products will not significantly increase the ambient noise levels currently experienced in this area.

Consequently, a Noise Impact Assessment was deemed unnecessary for this proposal.

¹ NFEPA: National Freshwater Ecosystem Priority Areas.

Plant Species Assessment

The site is indicated as having a low sensitivity rating for the Plant Species Theme. The site is however well-established as a diesel storage and distribution facility, is completely transformed (built-up), devoid of any flora, and not located close to any intact indigenous vegetation. The proposed increase in storage capacity would therefore have no impact on the Plant Species Theme. The impact is therefore considered to be negligible, and a Plant Species Assessment was deemed unnecessary for this proposal.

Sensitivity Scoring	Sensitivity Features
Low	Low sensitivity

Animal Species Assessment

The site is indicated as having a medium sensitivity rating for the Animal Species Theme due to the potential occurrence of the following sensitive species in this region.

Species	Habitat
Scarabaeus (Pachysoma) aesculapius	The South-Western African dung beetle subgenus Scarabaeus (Pachysoma) aesculapius is endemic to the West Coast of Southern Africa and the habitat of the species is firm sand on coastal hummocks, riverbanks and vegetated dunes ² .
Peringuey's Meadow Katydid (<i>Conocephalus peringueyi</i>)	Peringuey's Meadow Katydid (<i>Conocephalus peringueyi</i>) are only found in mountains of the fynbos biome ³ .
Yellow-Winged Agile Grasshopper (<i>Aneuryphymus montanus</i>)	The Yellow-Winged Agile Grasshopper (<i>Aneuryphymus montanus</i>) is associated with fynbos vegetation, South-facing cool slopes and rocky foothills ⁴ .

The project site is completely transformed and devoid of any vegetation, therefore the site does not provide a suitable habitat for the animal species of concern. The vulnerable animal species indicated in the Screening Tool Report are therefore unlikely to be found on site or to be impacted by the proposed activity. The impact of the proposed activity on the Animal Species Theme can therefore be considered negligible. No Animal Species Assessment would therefore be required.

Sensitivity Scoring	Sensitivity Features
Medium	Invertebrate-Pachysoma aesculapius
Medium	Invertebrate-Conocephalus peringueyi
Medium	Invertebrate-Aneuryphymus montanus

Hydrology Assessment

A Hydrology Assessment was deemed unnecessary for the proposal, as the project site is completely transformed and no watercourses, other than the previously mentioned wetland adjacent to the site, are situated within a 500 m radius of the project site. The nearest river is 1 593 m from the site boundary.

² [A revision of the endemic south-western African dung beetle subgenus Scarabaeus \(Pachysoma\) MacLeay, including notes on other flightless Scarabaeini \(Scarabaeidae: Scarabaeinae\): Journal of Natural History: Vol 37, No 3 \(tandfonline.com\)](#) and [Scarabaeus \(Pachysoma\) aesculapius Olivier 1789 - Plazi TreatmentBank](#)

³ [SANBI](#)

⁴ [SANBI](#)

A Wetland Assessment will however be undertaken. Additionally, a stormwater management plan will be compiled for the project to discuss the proposed measures to control stormwater on the site.

- b) The following theme's sensitivity ratings, as identified by the Screening Tool Report, are disputed by the EAP:**

Relative Civil Aviation Theme

The Civil Aviation Theme was rated as having a high sensitivity due to the site being located between 15 and 35 km from a civil aviation radar and a major civil aviation aerodrome as well as within 8 km of other civil aviation aerodrome (such as the Cape Winelands Airport (FAWN) located approximately 7.2 km from the site). The proposed increase in storage capacity is highly unlikely to impact the Civil Aviation Theme as the project will not involve the construction of high structures that will obstruct flight paths and will not create glare issues or interfere with navigation systems. The impact can therefore be considered to be negligible.

Sensitivity Scoring	Sensitivity Features
High	Within 8 km of other civil aviation aerodrome
Medium	Between 15 and 35 km from a civil aviation radar
Medium	Between 15 and 35 km from a major civil aviation aerodrome

Relative Defence Theme

The Defence Theme was rated as having a medium sensitivity. In all likelihood this is because of military, naval or air force infrastructure/bases or communication/radar zones being located within relatively close proximity to the project site such as Air Force Base Ysterplaat (approximately 21 km away). However, no defence-related components are in direct proximity to the site. The project will not host extremely tall structures, transmission equipment or features likely to interfere with air navigation, radar or line-of-sight operations. The project does not pose a national security concern and will not generate electromagnetic emissions that could interfere with air traffic communication, surveillance or radar systems. The proposed increase in storage capacity will thus have no impact on the Defence Theme or any other matters relating to national security. The impact will therefore be negligible.

Sensitivity Scoring	Sensitivity Features
Medium	Military and Defence Site

- c) The following specialist studies, as identified by the Screening Tool Report, will be carried out:**

Traffic Impact Assessment

The proposed increase in storage capacity is expected to produce traffic impacts. A Traffic Impact Assessment will be commissioned to assess the potential impacts of the project. The construction and operation phases might lead to some traffic disruptions, which will be addressed through mitigation measures outlined in the EMP.

A Traffic Impact Assessment was deemed necessary for this proposal as new vehicle trips are expected to be generated as a result of the proposal. Therefore, the status quo of the traffic operating conditions on the surrounding road network may not remain the same.

Socio-Economic Assessment

The proposed activity may have socio-economic impacts on the nearby residential area, which is 109 m from the project site. A Socio-Economic Impact Assessment will therefore be commissioned to assess the potential impacts of the project.

Geotechnical Assessment

The proposed activity involves the decommissioning of existing fuel storage tanks and installation of new fuel storage tanks. Due to the construction of new aboveground structures associated with this application, a Geotechnical Assessment would be required for the proposed activity.

d) The following specialist studies, not identified by the Screening Tool Report, will be carried out:

Stormwater Management Plan

The proposed activity may have impacts on the stormwater. A conceptual Stormwater Management Plan will therefore be commissioned to assess the potential impacts of the project.

Major Hazardous Installation Quantitative Risk Assessment

A Major Hazardous Installation Quantitative Risk Assessment will be commissioned to determine the risks of the facility, evaluate and mitigate potential impacts on the environment, as well as identify and mitigate potential incidents (including a major emission, fire or explosion) as defined in Section 30 of the National Environmental Management Act (No. 107 of 1998; NEMA) associated with the project.

Air Quality Impact Assessment

The proposed activity may have air quality impacts. An Air Quality Impact Assessment will therefore be commissioned to assess the potential impacts of the project.

Contamination Assessment

As per the pre-application meeting with the DEADP⁵, a Phase 1 Due Diligence Assessment will be carried out in order to establish a baseline for environmental assessment pertaining to soil and groundwater on site and to assess if any existing contamination is present subsurface in the area surrounding the fuel infrastructure as well as the area identified by the DEADP which indicated surface staining in historical Google Earth imagery.

Geohydrology Assessment

A geohydrological assessment will be commissioned to characterise the groundwater conditions beneath the site and classify the aquifers in terms of the Parson's aquifer classification system. Risk in terms of the strategic value and vulnerability will be presented. The main output of the specialist study will be the risk and impact review for the geohydrological receiving environment for the proposed development activities and the identification of mitigation measures.

⁵ DEADP: Department of Environmental Affairs and Development Planning.

Further specialist studies may be conducted based on the recommendations of these specialist studies as well as the DEADP.

5. CONCLUSION

This Site Sensitivity Verification Report (SSVR) was compiled using available desktop information such as Google Earth, Google Street View and the Cape Farm Mapper and was verified through ground-truth, by means of a site visit which was conducted prior to writing this report.



www.kanteys.co.za