LANDSCAPE AND VISUAL IMPACT ASSESSMENT:

FOR THE PROPOSED BLACK ROCK SOLAR PV FACILITY, HOTAZEL, NORTHERN CAPE PROVINCE

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EXECUTIVE SUMMARY

INTRODUCTION

This report serves as a Visual Impact Study (VIS) for the proposed Black Rock Solar PV Facility. The objective is to create high quality view simulations from important/sensitive viewpoints accompanied by a visual impact assessment.

The following tasks have been performed:

- Familiarisation with project and project background including proposed solar PV design specifications, as well as characterisation receiving environment.
- Preliminary desktop study, incorporating the generation of GIS data (locality, land use, topography, general sensitivity).
- Daytime photographing of selected views.
- An audit of the receiving environment's Sense of Place.
- The execution of daytime view simulations as viewed from selected vantage points, providing decision makers with a realistic, representative visual reference of what may be expected.

DESCRIPTION OF THE DEVELOPMENT

The proposed Black Rock Solar PV Facility has a proposed capacity of 100MW. The proposed development envelopes cover a substantial area, measuring approximately 450 hectares.

NATURE OF THE AREA PRE-DEVELOPMENT

The landscape is characterised as being rural and much of the surrounding area includes mining activities, shrubland and agriculture. The main agriculture in the area is a combination of livestock and game farming. This results in an open landscape with few impediments to visibility as the landscape is relatively flat. The small town of Hotazel is in close proximity. The landscape is characterised by a number of highly visible mines in the area, such as Black Rock, Mokala, Wessels, Kalagadi, Kudumane, Hotazel.

NATURE OF VIEWER TYPES EXPOSED TO THE DEVELOPMENT

The types of viewers potentially exposed to the development will be varied and include commuters and residents, as well as the occasional tourist.

The proposed development area is mainly mixed agriculture, mining, and shrubland as well as the small town of Hotazel. The Black Rock Mining Operations (BRMO) extend to the east of the proposed facility. Therefore, it must be noted that the addition of the solar farms is not anticipated to stand in contrast with the receiving environment.

VIEW SIMULATIONS

View simulations showing views from five vantage points have been developed, in order to illustrate how the proposed solar PV facilities will be visible from these locations.

IMPACT ASSESSMENT FINDINGS

- Due to the development's size, it is anticipated to have **high visual exposure** for some vantage points **(without considering viewer sensitivity or compatibility with receiving environment).**
- The level of contrast the development will have in relation to its environment scores **8/12**, constituting a contrast value of **66%.** This indicates a **medium compatibility** with surrounding scenery.
- The proposed development poses an anticipated visual change rating of **12/30**, thus constituting a **low visual change rating.**
- The proposed development poses an anticipated visual impact significance rating of **9/20**, thus constituting **a low visual impact significance, where it will not have an influence on the decision.**

The proposed development area is mainly mixed agriculture, mining, and shrubland as well as the small town of Hotazel. The Black Rock Mining Operations (BRMO) extend to the east of the proposed facility. It must be noted that the proposed PV facility will become part of a landscape that is already characterised by a number of highly visible mines in the area, such as Black Rock, Mokala, Wessels, Kalagadi, Kudumane, Hotazel. Therefore, it must be noted that the addition of the solar farms is not anticipated to stand in contrast with the receiving environment and is thus not expected to significantly alter the sense of place

CONCLUSIONS

From a visual impact perspective we are of the opinion that the proposed Black Rock Solar PV Facility and the associated infrastructure described in section 2 of this report should be authorised in the proposed location.

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ABBREVIATIONS

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EHS	Environmental, Health and Safety
EIA	Environmental Impact Assessment
EIR	Environmental Impact Report
EScience	EScience Associates (Pty) Ltd
GIS	Geographic Information Systems
Ha	Hectare
NEMA	National Environmental Management Act
NEMBA	National Environmental Management Biodiversity Act
NEMPAA	National Environmental Management: Protected Areas Act
NHRA	National Heritage Resources Act
VIS	Visual Impact Study
VIA	Visual Impact Assessment
ZVI	Zone of Visual Influence

GLOSSARY OF LANDSCAPE TERMS

The following glossary of terms was sourced from (Marot & Kruse, 2018).

ENERGY LANDSCAPE

An energy landscape is characterized by one or more elements of the energy chain (e.g. energy extraction, assimilation, conversion, storage, transport or transmission of energy).

The outcome can be a multi-layer energy landscape comprising combinations of technical and natural sources of energy within a landscape.

LANDSCAPE

(1) An area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.

(2) An area (spatial component) as perceived by people (subjective component), whose sensually perceivable features (link to aesthetics in the original meaning of the Greek 'aisthesis') and character (Alexander von Humboldt's definition of landscape) are the result (evolutionary/temporal aspect of landscape) of the action of natural and/or cultural factors (holistic view of landscape).

(3) The Swedish primary definition of the word landscape (*swe. landskap*) denotes the conditions in a country, a country's character, and/or a country's traditions. Originally, landskap was strongly related to customs, ideas of homeland, justice, nature, and nation [1] (cited in [2] . Landskap was a social space that denoted a territory and its people, and connoted aspects of custom, value, and everyday life.

(4) For many people, landscape simply means scenery – everything that is around us and can be viewed at one time from one place on the horizon – or all the visible features of an area, considered for their aesthetic appeal.

LANDSCAPE AWARENESS

Landscape awareness refers to deeper understanding of the value of landscapes, their role and changes to them, among the civil society, private organisations and public authorities.

European Landscape Convention marks the importance of awareness-raising which is defined as a way of making clear the relations that exist between people's cadre de vie,

[1] Olwig, K. R. (1996). Recovering the substantive nature of landscape. Annals of the Association of American geographers 86(4), 630–653.

[2] Marot, N., & Kruse, A. (2018). Towards common terminology on energy landscapes. Journal of Landscape Ecology: Special Issue 2, 59-63.

the activities pursued by all parties in the course of their daily lives and the characteristics of the natural environment, housing and infrastructure[3] (cited in [2]).

LANDSCAPE CAPACITY

Landscape capacity refers to the degree to which a particular landscape character type or area is able to accommodate change without significant effects on its character, or overall change of landscape character type. Capacity is likely to vary according to the type and nature of change being proposed.

LANDSCAPE CHARACTER

The distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape. It is a standard methodology for identifying, describing, classifying and mapping what is distinctive about landscapes. It is used in the assessment of landscape impacts for land use changes.

LANDSCAPE CLASSIFICATION

Landscape classification is a means of grouping different types of landscapes into categories to address similar types at once. Classification is important for communication because it provides a consistent frame of reference. As the classification of landscapes is complicated by the fact that it involves both human perception and physical reality, there are many different attempts, according to nationality but also to scientific background. EUCALAND set-up a European Agricultural Landscape classification based on identity, pattern, process, change, spatial relationship, social organisation and topography with 10 different classes. Landscape classification is a basis of the research on landscape structure, process, and function, and also, the prerequisite for landscape evaluation, planning, protection, and management, directly affecting the precision and practicability of landscape research.

LANDSCAPE FUNCTION

The flows of social, economic and ecological benefits that land may generate. In the context of Ecosystem Services, this can be described as the capacity of land for ecosystem service production.

[3] Council of Europe. (2000). European Landscape Convention. Florence: Council of Europe.

LANDSCAPE IDENTITY

Landscape identity is related to the character and the tangible and intangible characteristics that shape the feeling of a person belonging to a landscape. Identity of a landscape is the sum of the different information layers drawing on for example the territory, cultural elements, natural resources, and current use.

The Spanish: key naturalists Martinez de Pison (2000) and Gonzalez Bernaldez (1981) have referred to this concept saying landscape identity comes with the person; it is a bag full of information of what we are carrying.

LANDSCAPE QUALITY

The perception of the holistic environmental, cultural, sensory and psychological characteristics of a landscape with respect to their benefits or significance to people. It is relative, not absolute, requiring interpretation in the context of geographic scale (i.e. local, regional, national) and, or human experience.

LANDSCAPE RESILIENCE

Landscape resilience is its capacity for renewal in a dynamic environment. Its characteristics are flexibility, adaptability, and ability to withstand change.

LANDSCAPE SENSITIVITY

The degree to which the character and qualities of the landscape are affected by specific types of development and land-use change.

LANDSCAPE SERVICES

The contributions of landscapes and their components to human well-being. Landscape Services is a concept complementary to that of Ecosystem Services.

LANDSCAPE VULNERABILITY

In landscape planning, vulnerability is defined as 'vulnerability to impact', and the likelihood of change to, or loss of, landscape features. Its level is a reflection of the significance of the functions of such features.

LAND USE CONFLICTS

A land use conflict is a situation where there is a disagreement on the use of a certain piece of land and/or a belief that people's rights or well-being are being threatened by an action or undertakings of another, or the inaction of another party.

The origins of most land use conflicts is when a land use, a project or an action is incompatible with the views, expectations and values of the people living, working and/or vacationing in a potentially affected area.

VISUAL IMPACT

Change to the appearance of the landscape as a result of a development which can be positive (improvement) or negative (detraction) and the associated changes in the human visual experience of the landscape.

LANDSCAPE ASSESSMENT

The purpose of landscape assessment in landscape planning is to support the identification of landscape values, development opportunities and management options. It is a broad term referring to various assessment types that may be classified by their objective as resource (opportunities for specific uses), capacity (constraints for specific uses) and other (not necessarily planning orientated) assessments (e.g. formal aesthetic, character, ecological assessments). Assessments can take account of quantitative and qualitative (descriptive or depictive) factors.

VISUAL ASSESSMENT

Visual assessment (called also Visual Impact Assessment – VIA) is the process (including analysis) of taking account of the effects of certain types of development on the visual landscape, usually prior to implementation. The term Visual Impact Assessment was coined as part of Environmental Impact Assessment in the US National Environmental Policy Act of 1969.

1 INTRODUCTION

This report serves as a Visual Impact Assessment (VIA) for the proposed Black Rock Solar PV Facility proposed by Nec Xon (Pty) Ltd and Assmang (Pty) Ltd. This solar PV facility will have a maximum generation capacity of 100 MW and in addition, the developers are proposing new distribution powerlines (132kV/22kV) between the proposed solar PV facility and the existing Blackrock Substation.

1.1 PROJECT LOCATION

Nec Xon (Pty) Ltd and Assmang (Pty) Ltd are proposing the establishment of the photovoltaic facility and associated infrastructure approximately 1.5km Northwest of Hotazel in the Joe Morolong Local Municipality and John Taolo Gaetsewe District Municipality in the Northern Cape Province. The solar facility will be located on the Remaining Extent of the Farm Kipling, and the powerlines will be located on the Remaining Extent of the Farm Kipling, Portion 1 of Gloria 266, the Remaining Extent of Mukulu 265, and Portion 2 of Nchwaning 267.

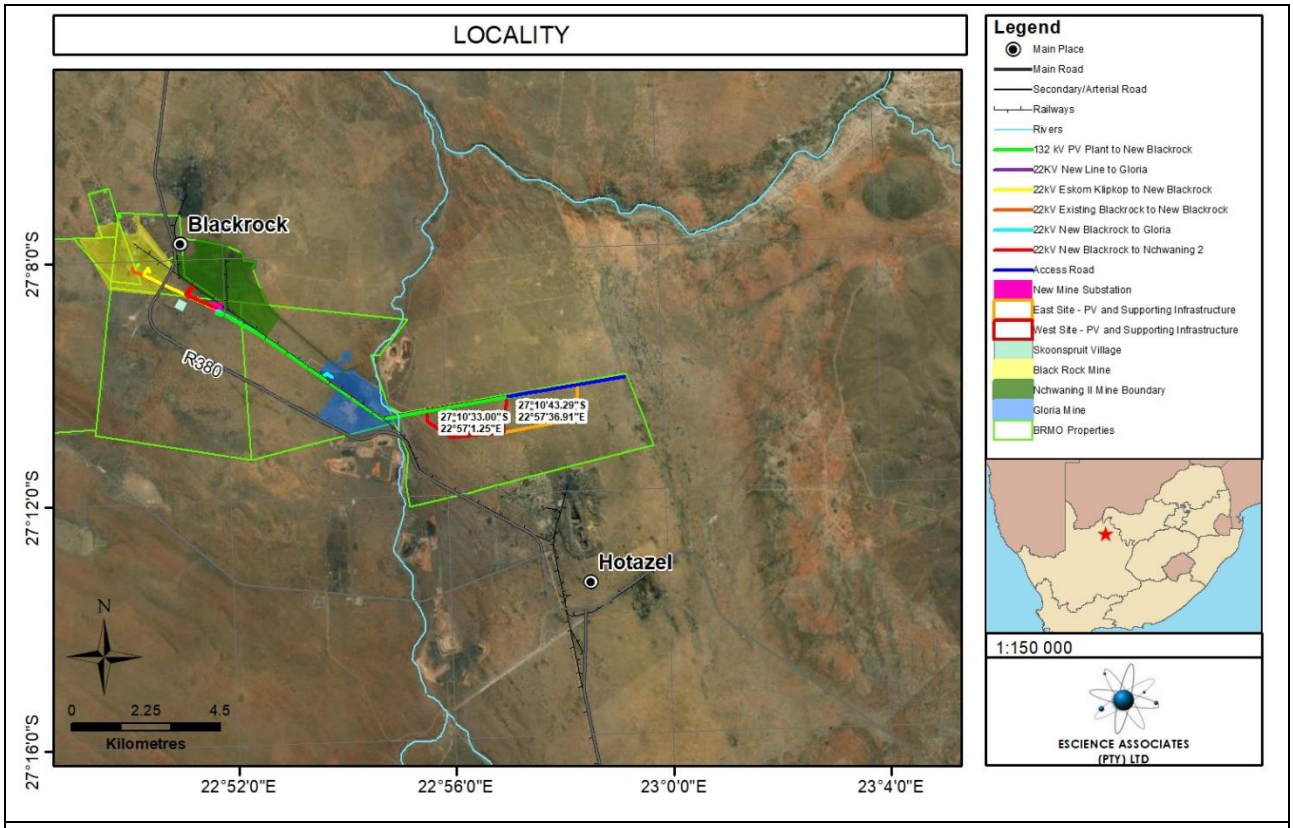

Figure 1-1: Proposed Solar PV Facility Location

1.2 AUTHORS AND RELEVANT EXPERIENCE

This report has been compiled by EScience Associates and Mr JK Geldenhuys (visual specialist and Associate of EScience), with relevant associations and experience listed below:

Authors	Experience
Abdul Ebrahim - Energy Environmental Specialist	20 Years
Kotie Geldenhuys - Visual Impact Assessor	10 Years
Emma Jepsen - Environmental Specialist	2 Years

2 SCOPE OF STUDY

2.1 PROJECT TASKS

The following tasks have been performed:

- Familiarisation with project and project background including proposed solar PV design specifications, as well as characterisation receiving environment.
- Preliminary desktop study, incorporating the generation of GIS data (locality, land use, topography, general sensitivity).
- Daytime photographing of selected views.
- An audit of the receiving environment's Sense of Place.
- The execution of daytime view simulations as viewed from selected vantage points, providing decision makers with a realistic, representative visual reference of what may be expected.

The assessment process is summarised as a flow chart in Figure 2-1.

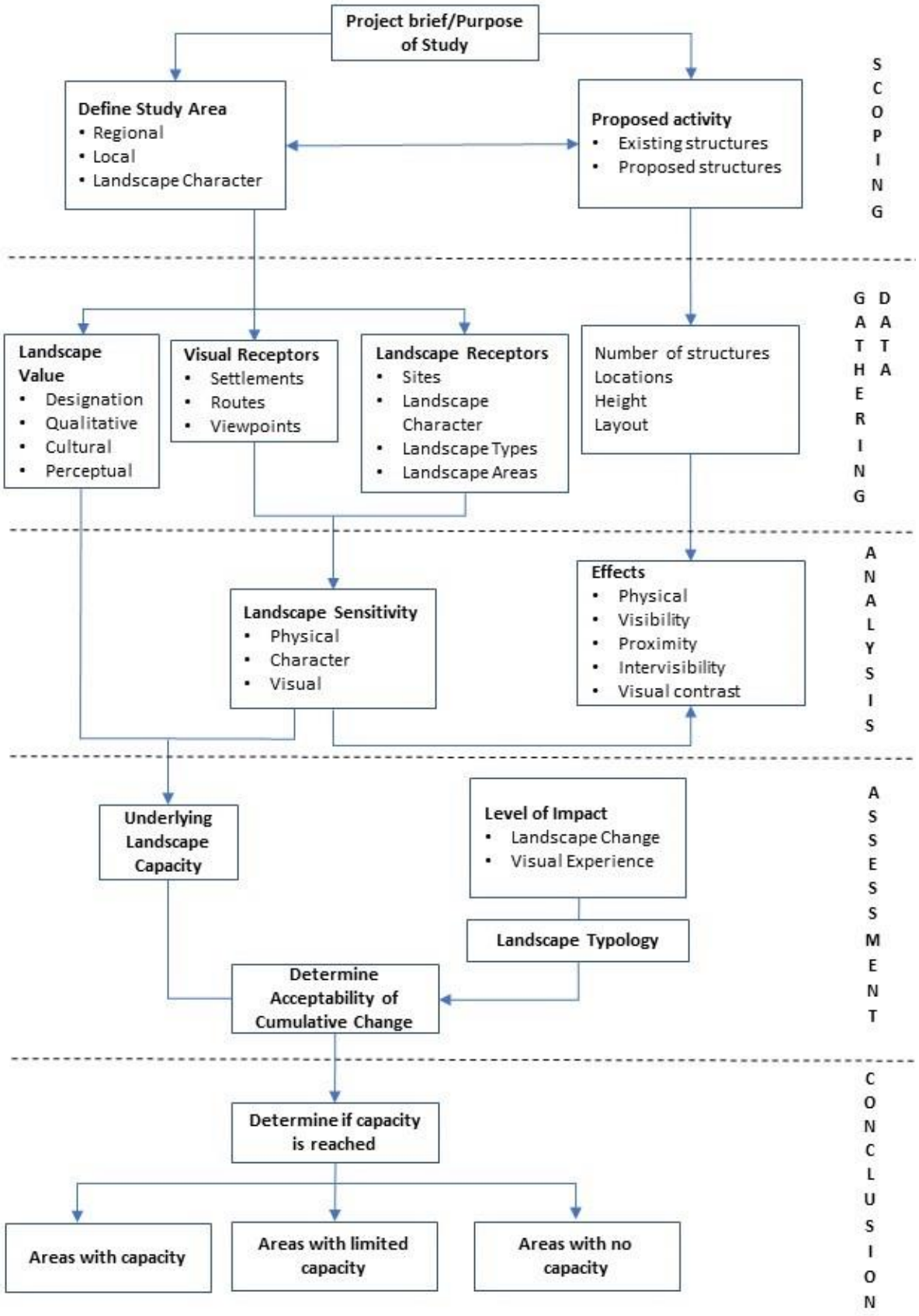

Figure 2-1: Cumulative Impact and Landscape Capacity Methodology Flowchart

3 DESCRIPTION OF THE DEVELOPMENT

Nec Xon (Pty) Ltd and Assmang (Pty) Ltd are proposing the development of Black Rock Solar PV Facility (-27.178875°, 22.951876°) and the associated infrastructure, with a maximum generation capacity of 100 MW.

The development footprint for the solar PV facility is estimated to be approximately 450 ha, with a total footprint of approximately 515 ha, including the associated infrastructure.

The proposed development consists of the following:

- Photovoltaic modules (mono-crystalline, poly-crystalline or bi-facial modules);
- Mounting systems for the PV arrays (single-axis horizontal trackers or fixed structures) and related foundations;
- Internal cabling and string boxes;
- Direct Current (DC)/ Alternating Current (AC) inverters;
- Medium voltage stations, hosting LV/MV power transformers;
- Medium voltage receiving station(s);
- Workshops & warehouses;
- One on-site high-voltage substation with high-voltage power transformers, stepping up the voltage to 132kV/275kV/400kV, and one high-voltage busbar with metering and protection devices;
- Up to three (3) x 422 kV overhead lines, for the connection between the proposed solar PV facility and the existing mine infrastructure;
- Battery Energy Storage Systems (BESS)
- Electrical system and UPS (Uninterruptible Power Supply) devices;
- Lighting system;
- Grounding system;
- Internal roads;
- Fencing of the site and alarm and video-surveillance system;

During the construction phase, the sites may be provided with additional:

- Water access point, water supply pipelines, water treatment facilities;
- Prefabricated buildings; and
- Workshops & warehouses; which will all be removed at the end of construction.

The connection may also entail interventions on the Eskom grid, according to Eskom's connection requirements/solution.

4 NATURE OF THE RECEIVING ENVIRONMENT AND RECEPTORS

4.1 LANDSCAPE SITUATION ANALYSIS

The solar parks and associated infrastructure will be located approximately 1.5km Northwest of Hotazel in the Joe Morolong Local Municipality and John Taolo Gaetsewe District Municipality in the Northern Cape Province. Much of the surrounding area includes mining activities, shrubland and agriculture. The main agriculture in the area is a combination of livestock and game farming. This results in an open landscape with few impediments to visibility as the landscape is relatively flat.

Additionally, the town of Hotazel is in close proximity to the proposed developments. The town is small and provides essential services to the surrounding community.

Figure 4-1 shows the location of the proposed developments in relation to the viewpoints used.

It must be noted that the viewpoints, P1 (Old farmhouse) and P2(Cattle Kraal) were selected to provide an indication of what the PV Plant will look like from a nearby proximity, however these viewpoints are not associated with any visual receptors and are therefore not used as part of the impact assessment considerations.

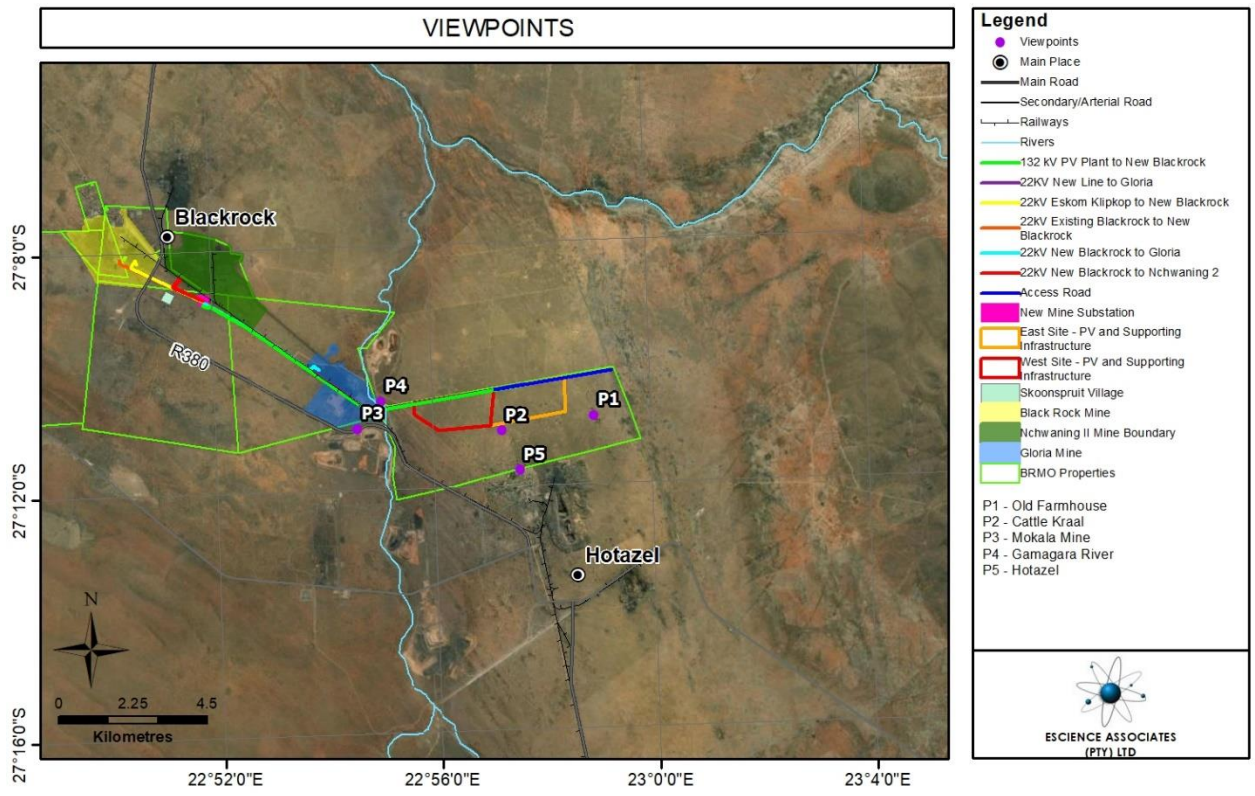

Figure 4-1 – Location of the viewpoints in relation to the proposed developments

Figure 4-2 to Figure 4-6 show the receiving environment as viewed from the specified viewpoints.

4.1.1 VIEWPOINT 1 – FARMHOUSE

It must be noted that this viewpoint, (P1 - Old farmhouse) was selected to provide an indication of what the PV Plant will look like from a nearby proximity, however this viewpoint is not associated with any visual receptors and is therefore not used as part of the impact assessment considerations.

Figure 4-2: View from Viewpoint 1 – Farmhouse, before development.

4.1.2 VIEWPOINT 2 – CATTLE KRAAL

It must be noted that this viewpoint, (P2 - Cattle Kraal) was selected to provide an indication of what the PV Plant will look like from a nearby proximity, however this viewpoint is not associated with any visual receptors and is therefore not used as part of the impact assessment considerations.

Figure 4-3: View from Viewpoint 2 – Cattle Kraal, before development.

4.1.3 VIEWPOINT 3 – MOKALA MINE

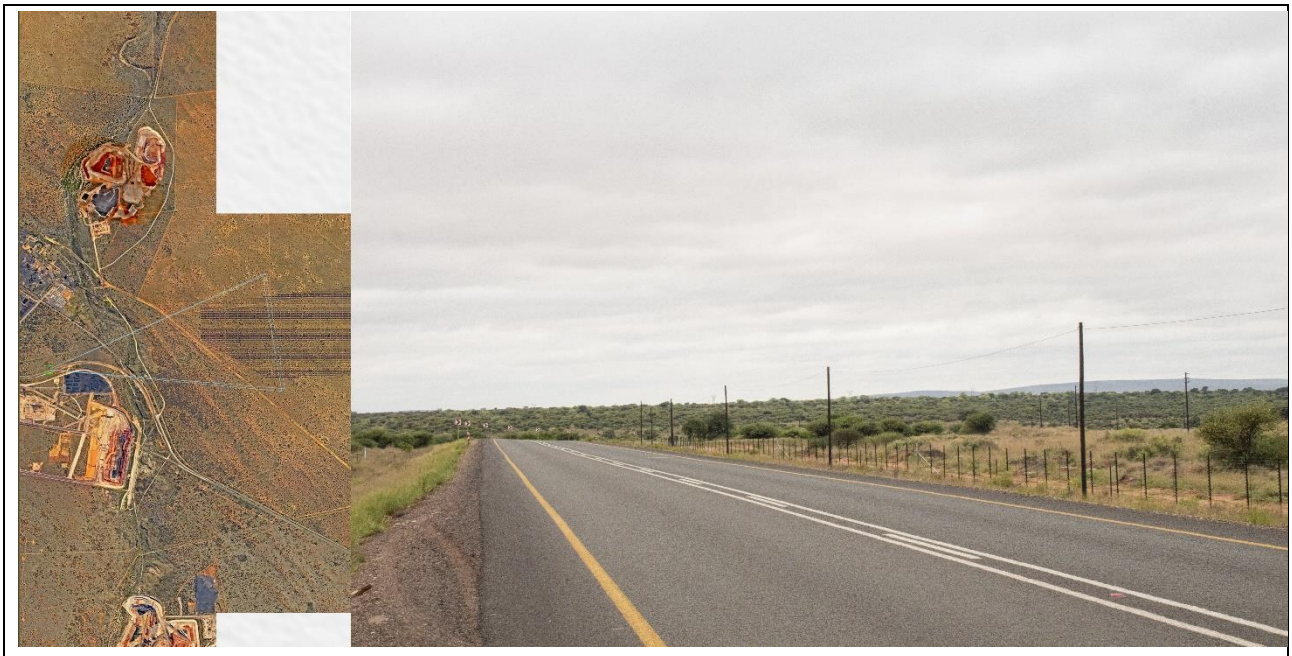

Figure 4-4: View from Viewpoint 3 – Mokala Mine, before development.

4.1.4 VIEWPOINT 4 – GAMAGARA RIVER

Figure 4-5: View from Viewpoint 4 – Gamagara River, before development.

4.1.5 VIEWPOINT 5 – HOTAZEL NORTH

Figure 4-6: View from Viewpoint 5 – Hotazel North, before development.

4.2 LANDSCAPE SENSITIVITY

4.2.1 SENSITIVITY ACCORDING TO DEPARTMENT OF FORESTRY FISHERIES AND THE ENVIRONMENT'S ONLINE SCREENING TOOL

On 5 July 2019, the Minister of Environment, Forestry and Fisheries signed a notice of requirement for all applications submitted as per Regulation 16(1)(b)(v) of the Environmental Impact Assessment Regulations, 2014, as amended. This notice requires a screening report as generated by the National Web Based Environmental Screening Tool in terms of Section 24(5)(h) of the National Environmental Management Act, 1998 (Act No. 107 of 1998) to be submitted along with the application, effective from October 2019.

The screening tool can be described as an online, geographic information system, which enables the user to assess the proposed area of development for any potential sensitivities.

The landscape(visual) sensitivity for Solar PV was extracted from the screening tool, refer to Figure 4-7. The site is deemed to be medium sensitivity due to it being Between 1km and 2 km of a town or village (Hotazel).

The topography of the surrounding area is shown in Figure 4-8. The view simulations and impact assessment within this report will be used to assess the sensitivity identified by the online screening tool.

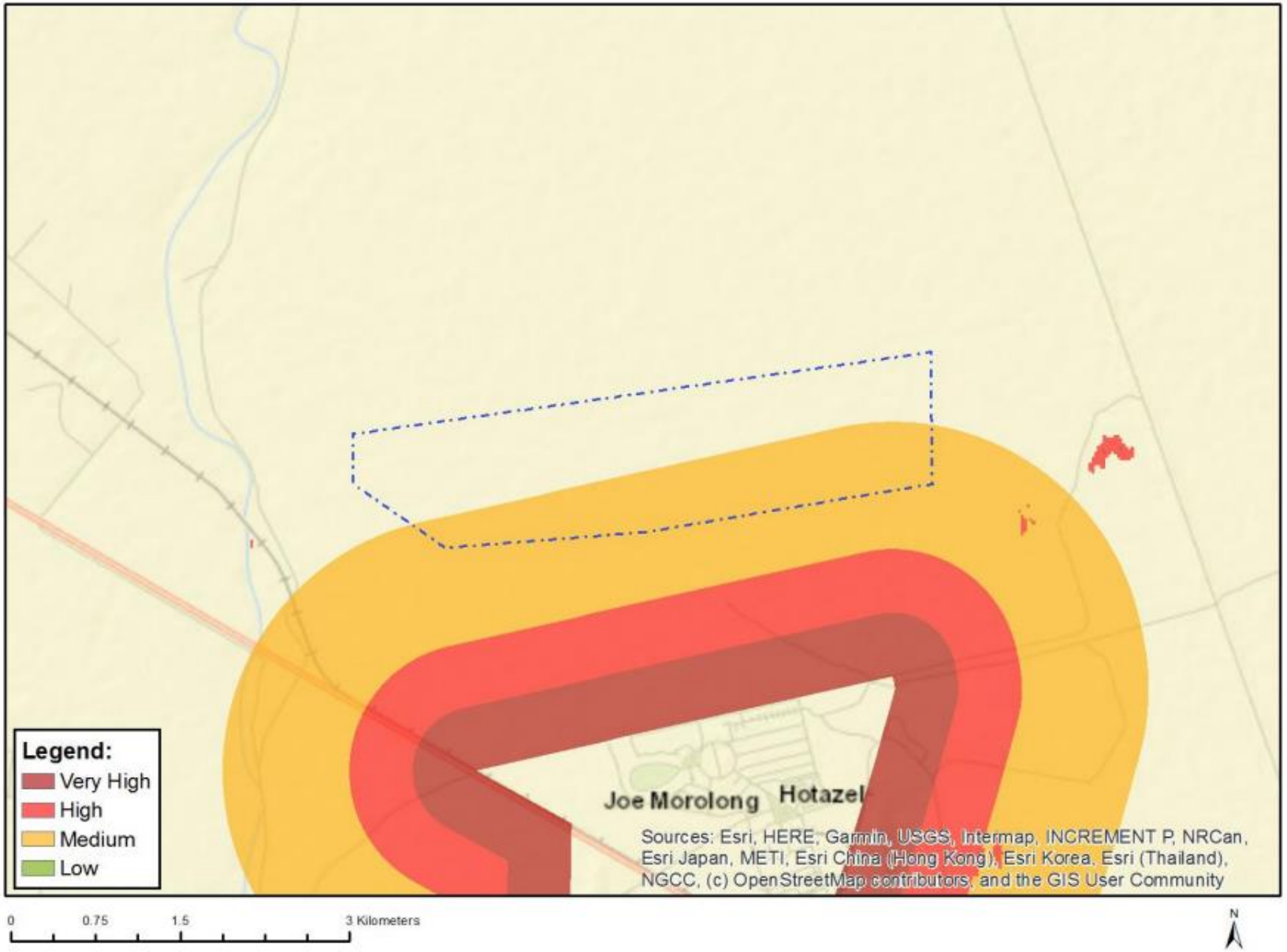

Figure 4-7: Landscape sensitivity to PV development – DFFE online Screening Tool

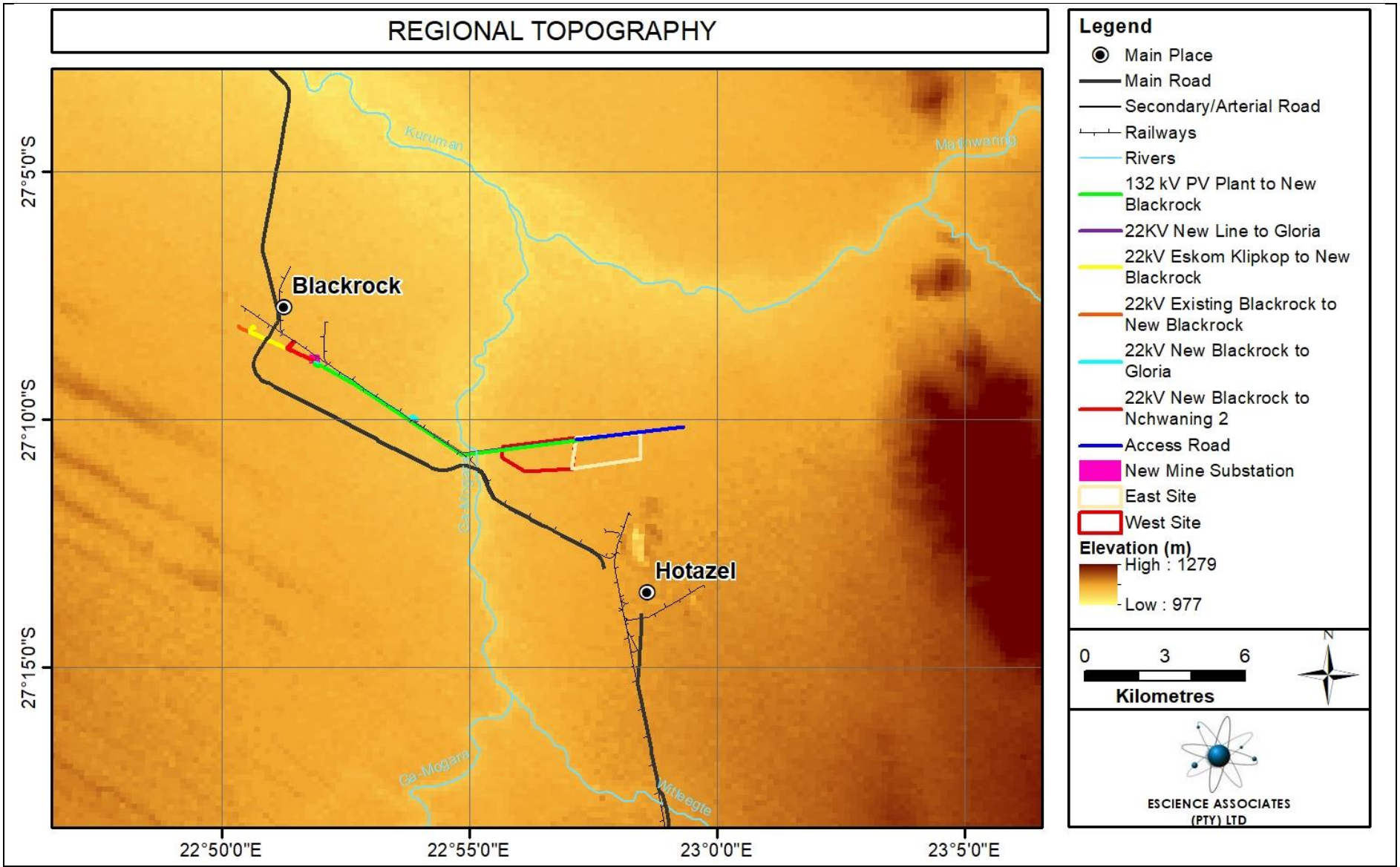

Figure 4-8: Topography surrounding the proposed development

4.3 VISUAL RECEPTORS AND VIEWER SENSITIVITY

Understanding the characteristics of persons who would likely view the actual project is important because it is the human response to visible changes in a landscape that determines whether the changes represent an improvement in scenic attractiveness (a positive visual impact) or a decrease in scenic attractiveness (a negative visual impact), as well as determining the magnitude of the impact.

The areas from which the solar parks will be visible (the Viewshed) is shown in Figure 4-9 to Figure 4-11

The landcover of the region is shown in Figure 4-12.

Visual receptors of the proposed solar parks include:

- Urban areas in close proximity to the developments:
    - Hotazel Town
- Point Receptors that include homes and farmsteads that are scattered throughout the area.
- Linear Receptors or routes through the area that include:
    - The R380 which is a regional road the connects Kathu and the Botswana border at Mcarthy's Rest and Bloemfontein. This is a tar road that becomes a dirt road at the nearby Wessels mine and is mostly used as a regional business route, thus, travellers on this road are not considered to be sensitive receptors.
    - The R31 which is a provincial road that connects Kimberley with the Namibian border at Rietfontein and is mostly used as a regional business route, thus, travellers on this road are not considered to be sensitive receptors.

The significance of the visual impact changes from one receptor to another and will depend largely on the receptors land use/activity.

It must be noted that the proposed PV facility will become part of a landscape that is already characterised by a number of highly visible mines in the area, such as Black Rock, Mokala, Wessels, Kalagadi, Kudumane, Hotazel.

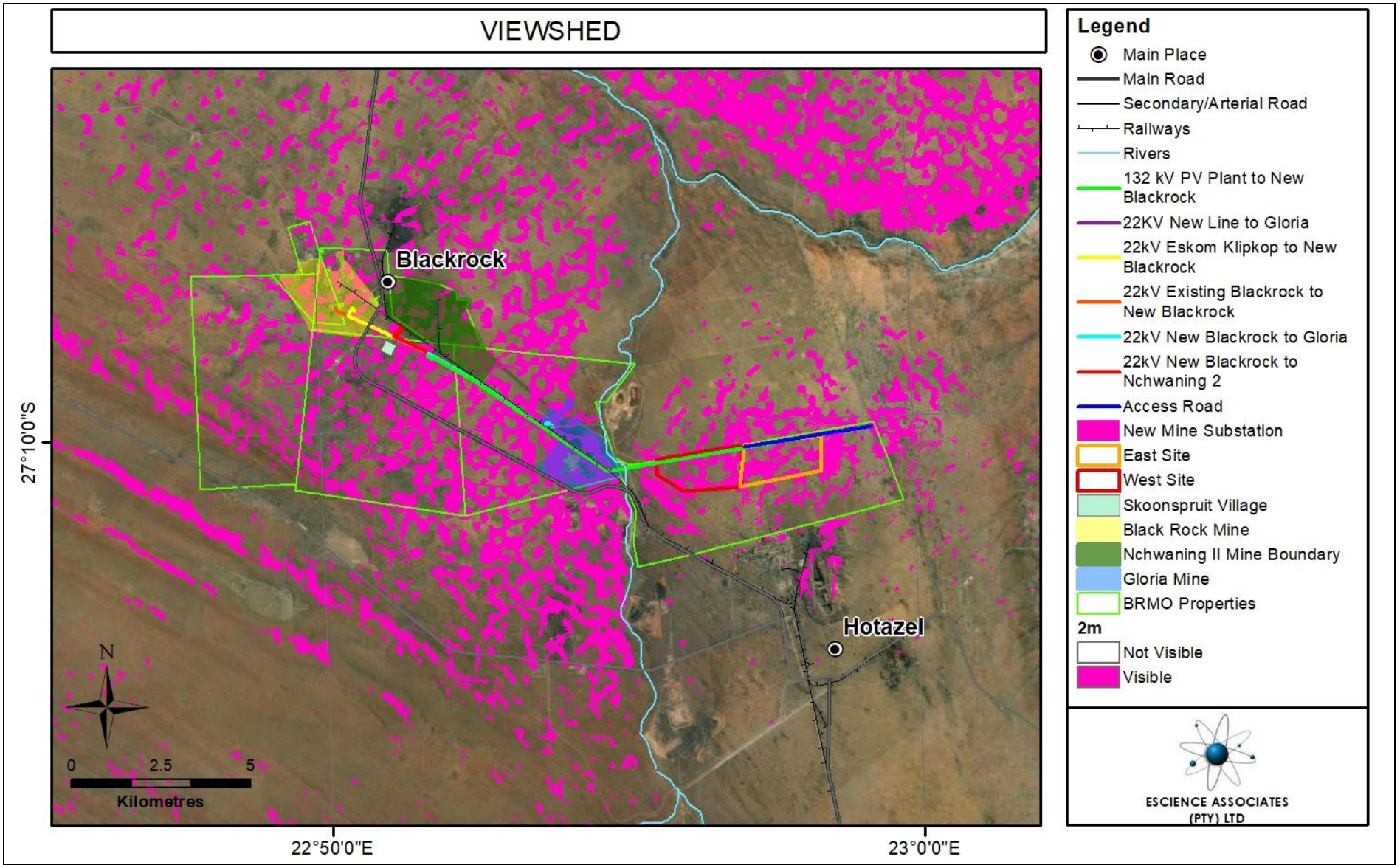

Figure 4-9: Viewshed of the proposed solar PV facilities.

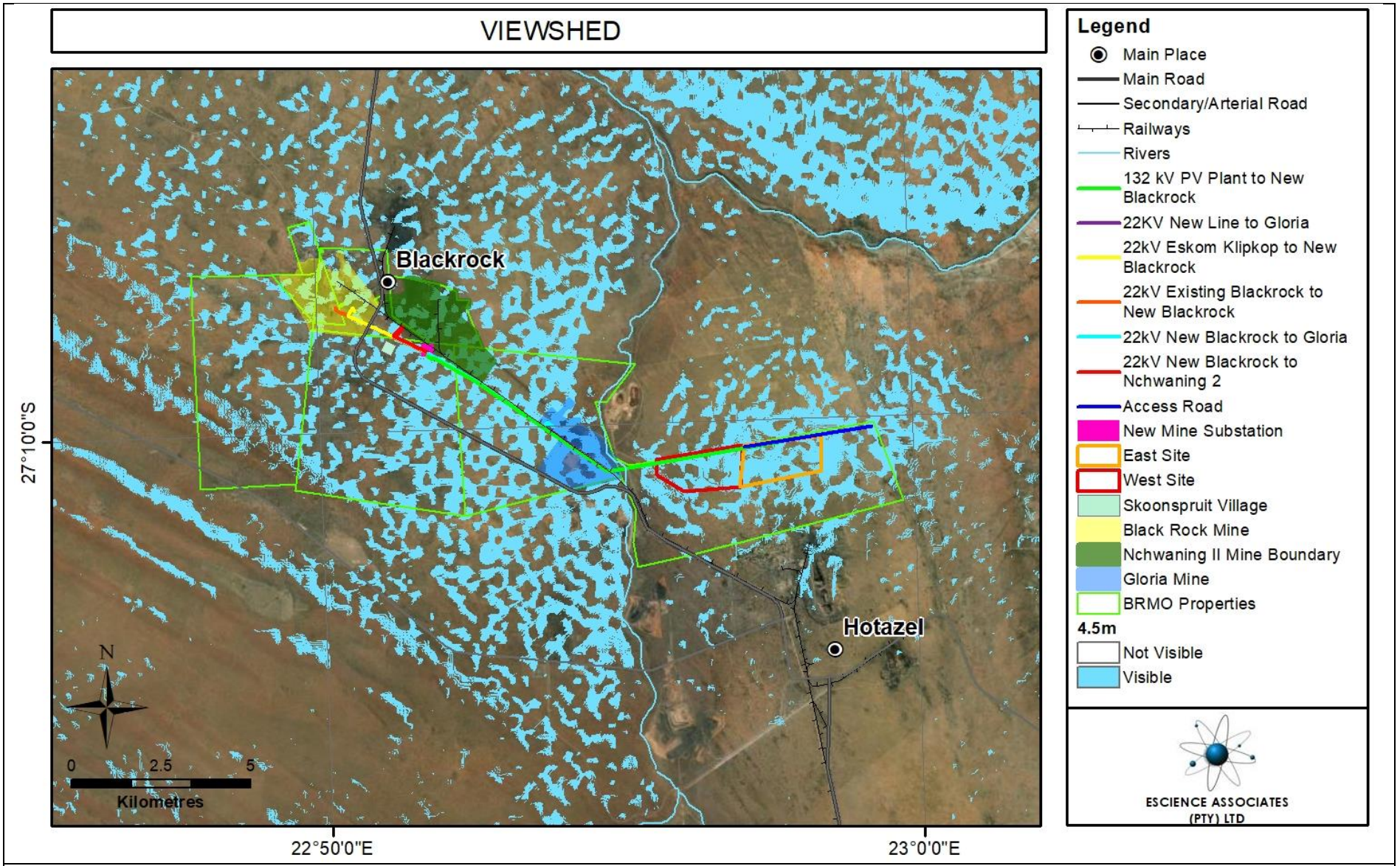

Figure 4-10: Viewshed of the approved solar PV facilities.

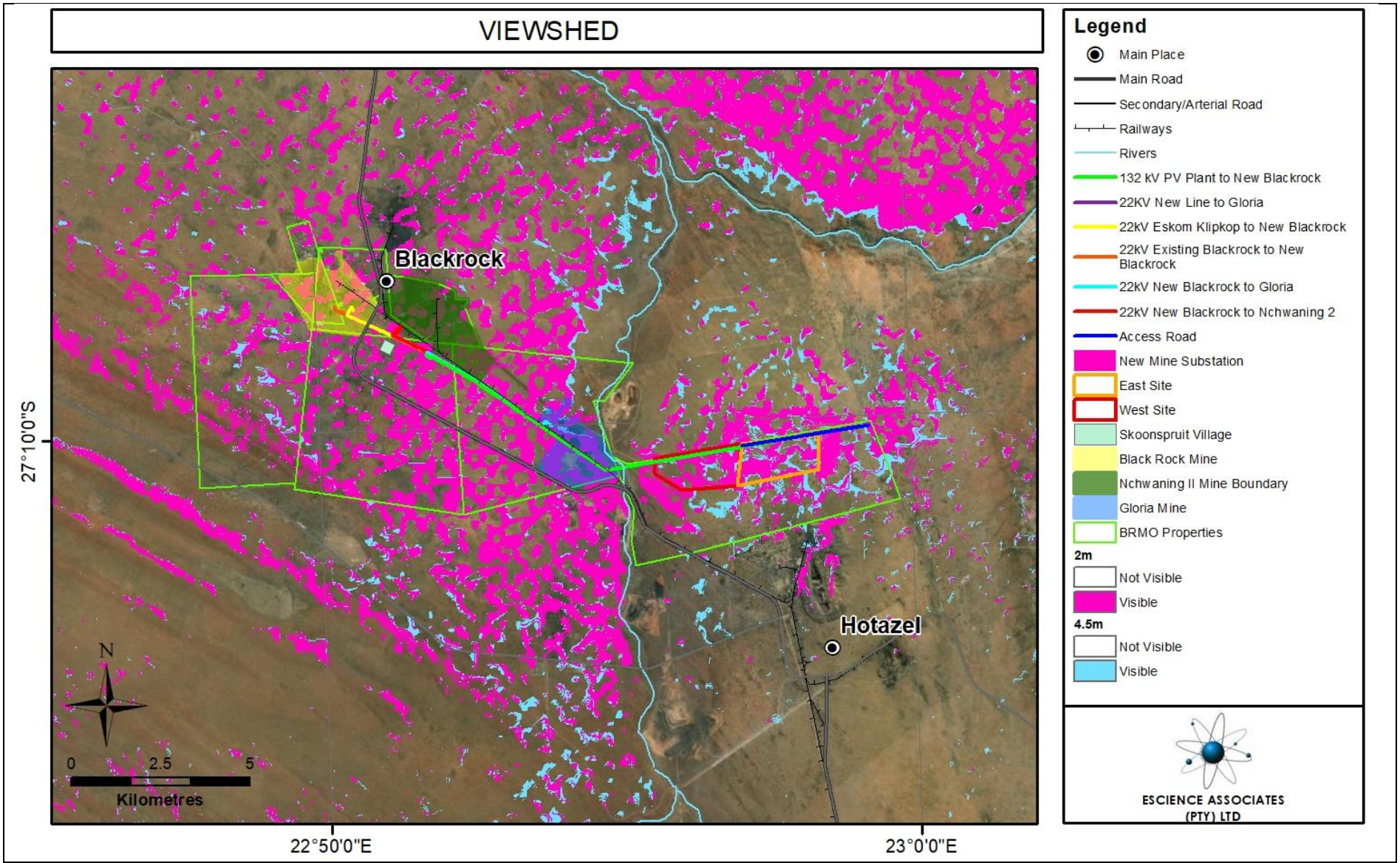

Figure 4-11: Viewshed of the approved solar PV facilities.

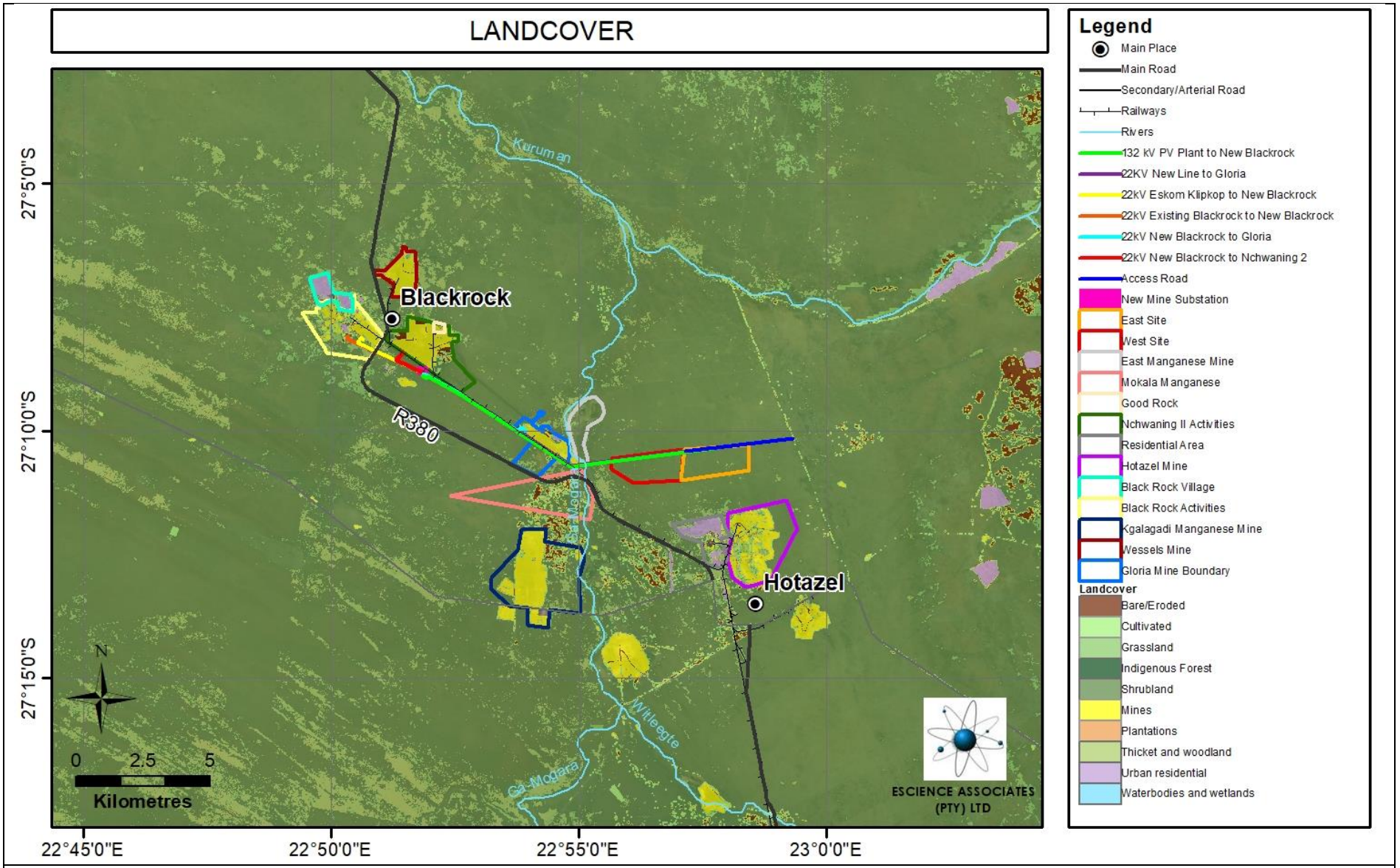

Figure 4-12: Regional Landcover

5 RELEVANT GUIDELINES

5.1 CONSIDERATION OF LOCAL GUIDELINES

Regulation 16 of the EIA regulations 2014 states that "*any report, plan or document submitted as part of an application must…take into account any applicable government policies and plans, guidelines, environmental management instruments and other decision making instruments that have been adopted by the competent authority in respect of the application process or the kind of activity which is the subject of the application and indicate how the relevant information has been considered, incorporated and utilised.*"

Additionally, Regulation 13b states that the EAP and specialists must "*have expertise in conducting environmental impact assessments or undertaking specialist work as required, including knowledge of the Act, these Regulations and any guidelines that have relevance to the proposed activity*;".

5.1.1 THE ENVIRONMENTAL IMPACT ASSESSMENT GUIDELINE FOR RENEWABLE PROJECTS

The then Department of Environmental Affairs, in 2015, published the EIA Guideline for Renewable Energy Projects[4], in order to assist project planning, financing, permitting, and implementation for both developers and regulators in the Independent Power Producer (IPP) procurement programme in South Africa.

5.1.2 GUIDELINE FOR INVOLVING VISUAL AND AESTHETIC SPECIALISTS IN EIA PROCESSES

The Western Cape Department of Environmental Affairs and Development Planning developed a series of specialist study guidelines for the EIA process in 2005. The purpose of this series of guidelines was to improve the efficiency, effectiveness and quality of specialist involvement in EIA processes. One of the guidelines developed was the "*Guideline For Involving Visual And Aesthetic Specialists In EIA Processes*" (Oberholzer 2005) [5] which indicates that "the specialist undertaking the VIA should be aware of the following principles and concepts underpinning visual input:

[4] Department of Environmental Affairs (2015). EIA Guideline for Renewable Energy Projects. Department of Environmental Affairs, Pretoria, South Africa

[5] *The Guideline for involving visual & aesthetic specialists in EIA processes: Edition 1*, by Bernard Oberholzer (2005) – https://www.westerncape.gov.za/eadp/files/atoms/files/deadp_visual_guideline_june05.pdf

- An awareness that 'visual' implies the full range of visual, aesthetic, cultural and spiritual aspects of the environment that contribute to the area's Sense of Place.
- The consideration of both the natural and the cultural landscape, and their inter-relatedness.
- The identification of all scenic resources, protected areas and sites of special interest, together with their relative importance in the region.
- An understanding of the landscape processes, including geological, vegetation and settlement patterns, which give the landscape its particular character or scenic attributes.
- The need to include both quantitative criteria, such as 'visibility', and qualitative criteria, such as landscape or townscape 'character'.
- The need to include visual input as an integral part of the project planning and design process, so that the findings and recommended mitigation measures can inform the final design and quality of the project.
- The need to determine the value of visual/aesthetic resources through public involvement.

According to Oberholzer (2005), a potential fatal flaw is defined as an impact that could have a "no-go" implication for the project. A "no-go" situation could arise if the proposed project were to lead to:

1. Non-compliance with Acts, Ordinances, By-laws and adopted policies relating to visual pollution, scenic routes, special areas or proclaimed heritage sites.
2. Non-compliance with conditions of existing Records of Decision.
3. Impacts that may be evaluated to be of high significance and that are considered by the majority of stakeholders and decision-makers to be unacceptable.

5.2 INTERNATIONAL GUIDELINES

5.2.1 UNITED KINGDOM GUIDELINES FOR LANDSCAPE AND VISUAL IMPACT ASSESSMENT, EDITION 3

The Guidelines for Landscape and Visual Impact Assessment, Edition 3,[6] indicate:

4.15 It is essential that the development proposals are clearly presented and illustrated and ideally this requires:

- …

[6] Guidelines for Landscape and Visual Impact Assessment, Edition 3, (GLVIA 3) UK Land IEMA, 2013.

- *Illustrations that will help the reader to gain a proper understanding of what is proposed, including:*
  - *layout plans of the main design elements, access and site circulation, land uses, contours and site levels;*
  - *cross sections and elevations of buildings and other important elements, including key dimensions;*
  - *the proposed landscape framework including landform and planting;*
  - *appropriate sketches, photomontages or other forms of visualisation.*

Furthermore the guideline states:

> *8.18 Photomontage is the most widespread and popular visualisation technique for illustrating changes in views and visual amenity…'*
>
> *8.19 To meet the rigorous requirements of planning applications and public inquiries photomontages must be technically accurate, to a degree appropriate to the nature of the project…*

Viewpoints illustrated should be those that are most visually sensitive, i.e. locations of scenic or cultural value. Simulations should also be provided illustrating the appearance of roads, clearing, and other project infrastructure (e.g. transmission lines, substations) if they would be visible from sensitive viewing locations.

5.3 ASSUMPTIONS AND LIMITATIONS

1. The assessment is undertaken based on the infrastructure specifications, dimensions and layout provided by the applicant.
2. The anticipated viewshed of the facility (Figure 4-9) was modelled based on all PV panels being a maximum height of 4.5m above ground level, whereas this will in fact vary between 1m and 4.5m.
3. It was assumed that the Battery Energy Storage System will be made up of shipping containers or similar structures.
4. Cumulative view simulations of the Black Rock Solar PV facility combined with other approved PV facilities in the area were not conducted, the capacity for the landscape to absorb further large scale PV was thus not assessed. The likelihood that

other PV facilities are constructed within the next 5 years was however accounted for in the impact assessment under 7.3.1.

6 DATA GATHERING AND ANALYSIS OF RECEIVING ENVIRONMENT

6.1 EXPECTED LEVEL OF IMPACT/TYPE OF ASSESSMENT

The Guideline for involving visual & aesthetic specialists in EIA processes: Edition 1, by Oberholzer (2005), provides a guide by which the intensity and type of specialist involvement can be determined through the categorisation of a development and the receiving environment.

A solar PV farm is not explicitly categorised in terms of development by the *Guideline for involving visual & aesthetic specialists in EIA processes* Oberholzer (2005). The receiving environment land use varies between Agricultural, mining, and shrubland and has been deemed "Areas or routes of low scenic, cultural, historical significance". As shown in Table 6-1 cross-referencing the intensity of development with the receiving environment determines the level of impact associated with the coupling of the development and the receiving environment. Considering the low height of the development a minimal or moderate impact is expected which results in the development being categorised as a category 3 or 4 development.

On the conservative end of the range a moderate visual impact is expected. The *Guideline for involving visual & aesthetic specialists in EIA processes* by Oberholzer (2005) further states that for developments where a moderate visual impact is expected, a Level 3 Visual Assessment should be undertaken.

The guideline states that a Level 3 Visual Assessment should include:

- Identification of issues raised in scoping phase, and site visit;
- Description of the receiving environment and the proposed project;
- Establishment of view catchment area, view corridors, viewpoints and receptors;
- Indication of potential visual impacts using established criteria;
- Description of alternatives, mitigation measures and monitoring programmes.

Review by independent, experienced visual specialist (if required).

Table 6-1: Derivative table aiding the determination of the level of specialist involvement and expected impact

TYPE OF ENVIRONMENT	TYPE OF DEVELOPMENT (LOW TO HIGH INTENSITY)				
	Category 1 Development	**Category 2 Development**	**Category 3 Development**	**Category 4 Development**	**Category 5 Development**
Protected/wild areas of international, national, or regional significance	Moderate visual impact expected	High visual impact expected	High visual impact expected	Very high visual impact expected	Very high visual impact expected
Areas or routes of high scenic, cultural, historical significance	Minimal visual impact expected	Moderate visual impact expected	High visual impact expected	High visual impact expected	Very high visual impact expected
Areas or routes of medium scenic, cultural or historical significance	Little or no visual impact expected	Minimal visual impact expected	Moderate visual impact expected	High visual impact expected	High visual impact expected
Areas or routes of low scenic, cultural, historical significance / disturbed	Little or no visual impact expected - possible benefits	Little or no visual impact expected	Minimal visual impact expected	Moderate visual impact expected	High visual impact expected
Disturbed or degraded sites / run-down urban areas / wasteland	Little or no visual impact expected - Possible benefits	Little or no visual impact expected - Possible benefits	Little or no visual impact expected	Minimal visual impact expected	Moderate visual impact expected

6.2 LANDSCAPE SENSE OF PLACE AND SENSITIVITY

Landscapes contribute substantially to sense of place. The biophysical and socio-cultural factors that define landscapes provide what are generally referred to as landscape goods and services.

6.2.1 SENSE OF PLACE

Although many terms have been used to refer to human connections to place, most would probably agree that Sense of Place is the most encompassing term, referring to the entire group of cognitions and affective sentiments held regarding a particular geographic locale.[7,8] Sense of Place is a complex concept that compounds the range of factors which

[7] Altman, I., & Low, S. (1992). Place Attachment. Boston, MA: Springer.
[8] Jorgensen, B., & Stedman, R. (2001). Sense of place as an attitude: lakeshore property owners' attitudes toward their properties. Journal of Environmental Psychology 21, 233-248.

define the local distinctiveness of a specific place and the ways in which people experience, use and understand that place to the extent that an emotional connection / attachment may be formed with a place; a presence that makes it part of the person and/or community and further a functional dependence because it is needed for conservation, economic or cultural activities (adapted from Zia et al., 2014[9]).

The proposed development area is mainly mixed agriculture, mining, and shrubland as well as the small town of Hotazel. The Black Rock Mining Operations (BRMO) extend to the east of the proposed facility. It must be noted that the proposed PV facility will become part of a landscape that is already characterised by a number of highly visible mines in the area, such as Black Rock, Mokala, Wessels, Kalagadi, Kudumane, Hotazel. Therefore, it must be noted that the addition of the solar farms is not anticipated to stand in contrast with the receiving environment and is thus not expected to significantly alter the sense of place.

6.2.2 LANDSCAPE SENSITIVITY – SENSITIVITY IN CONTEXT OF VISUAL LANDSCAPE

Landscape sensitivity may be regarded as a measure of the resilience, or robustness, of a landscape to withstand specified change arising from development types or land management practices, without significant or undue negative effects on the landscape visual baseline and their value – such as changes to valued attributes of baseline landscape character and the visual resource.

Sensitivity in the context of landscape is a term applied to specific receptors, combining judgements of the susceptibility of the receptor to 1) the specific type of change, 2) degree of alteration or 3) type development proposed, and the value of landscape and landscape character related to that receptor.[10]

Landscape capacity refers to the degree to which a particular landscape character type or area has the ability to accommodate change without significant effects on its character, or overall change of landscape character type. Capacity varies according to the landscape character and type and nature of change being proposed.[11]

[9] Zia, A., Norton, B.G., Metcalf, S.S., Hirsch, P.D., and Hannon, B.M. 2014. Spatial discounting, place attachment, and environmental concern: Toward an ambit-based theory of sense of place. Journal of Environmental Psychology, 40, 283-295.

[10] Landscape Institute; Institute of Environmental Management & Assessment . (2013). Guidelines for Landscape and Visual Impact Assessment, third edition. Routledge.

[11] Marot, N., & Kruse, A. (2018). Towards common terminology on energy landscapes. Journal of Landscape Ecology: Special Issue 2, 59-63.

Landscape sensitivity may be regarded as a measure of the resilience, or robustness, of a landscape to withstand specified change arising from development types or land management practices, without undue negative effects on the landscape and visual baseline and their value – such as changes to valued attributes of baseline landscape character and the visual resource.

Landscape capacity is related to landscape sensitivity to the extent that it has capacity for resilience to change, or robustness, and ability to withstand specified change arising from different development types or land management practices.

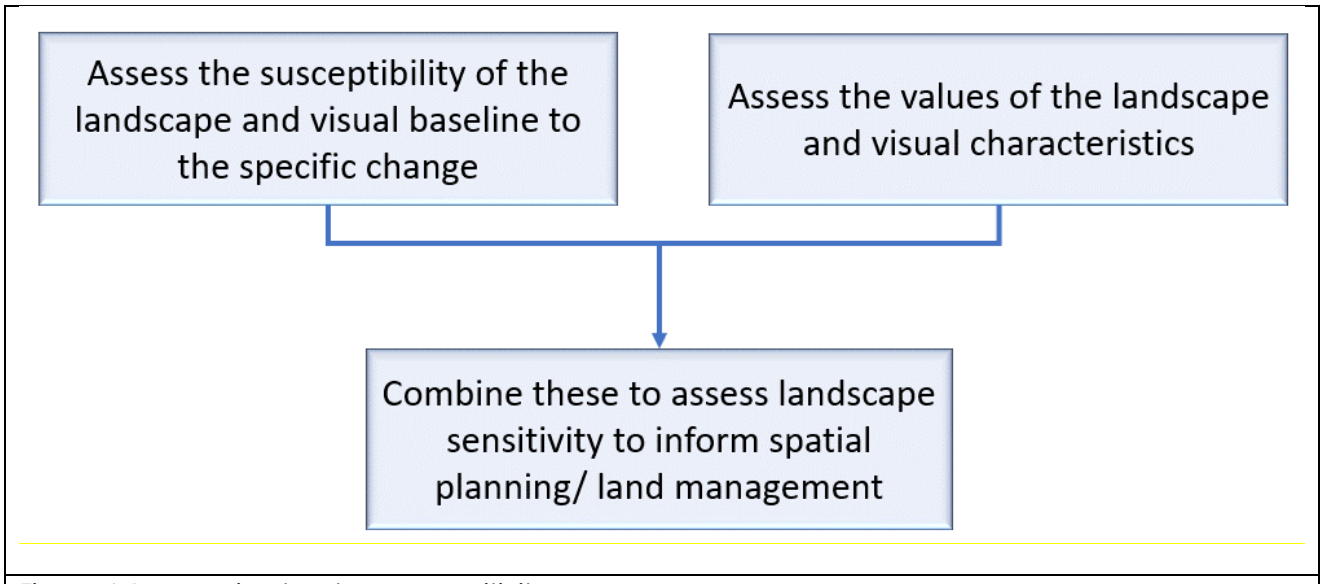

Figure 6-1: Assessing landscape sensitivity

The sensitivity of the landscape to the solar farms is deemed to be low, considering the fact that the area has existing operational mining facilities and associated infrastructure, and the height of the infrastructure is not exceedingly high.

6.3 SENSITIVE RECEPTORS AND ZONE OF VISUAL INFLUENCE

6.3.1 ZONE OF VISUAL INFLUENCE

The proposed developments will cover a large area - the developments themselves are of a substantial lateral size of around 515 ha. The development is not very tall, with the structures reaching heights no more than 4.5m (however the powerlines will have a maximum height of 40m). The facility is located in and viewed from areas with fairly dense

shrubs and trees which act to screen large parts of the PV facility from many areas. The development is anticipated to be visible from distances of up to 25 km.

6.3.2 NATURE OF VIEWER TYPES EXPOSED TO THE DEVELOPMENT

The types of viewers potentially exposed to the development will be varied and include commuters and residents, as well as the occasional tourist.

The proposed development area is mainly mixed agriculture, mining, and shrubland as well as the small town of Hotazel. The Black Rock Mining Operations (BRMO) extend to the east of the proposed facility. It must be noted that the proposed PV facility will become part of a landscape that is already characterised by a number of highly visible mines in the area, such as Black Rock, Mokala, Wessels, Kalagadi, Kudumane, Hotazel. Therefore, it must be noted that the addition of the solar farms is not anticipated to stand in contrast with the receiving environment and is thus not expected to significantly alter the sense of place.

7 IMPACT ASSESSMENT

7.1 VIEW SIMULATIONS

View simulations showing views from five vantage points have been developed, in order to illustrate how the proposed solar PV facilities will be visible from these locations (Figure 7-1):

1. Farmhouse
2. Cattle Kraal
3. Mokala Mine
4. Gamagara River
5. Hotazel North

It must be noted that the viewpoints, P1 (Old farmhouse) and P2(Cattle Kraal) were selected to provide an indication of what the PV Plant will look like from a nearby proximity, however these viewpoints are not associated with any visual receptors and are therefore not used as part of the impact assessment considerations.

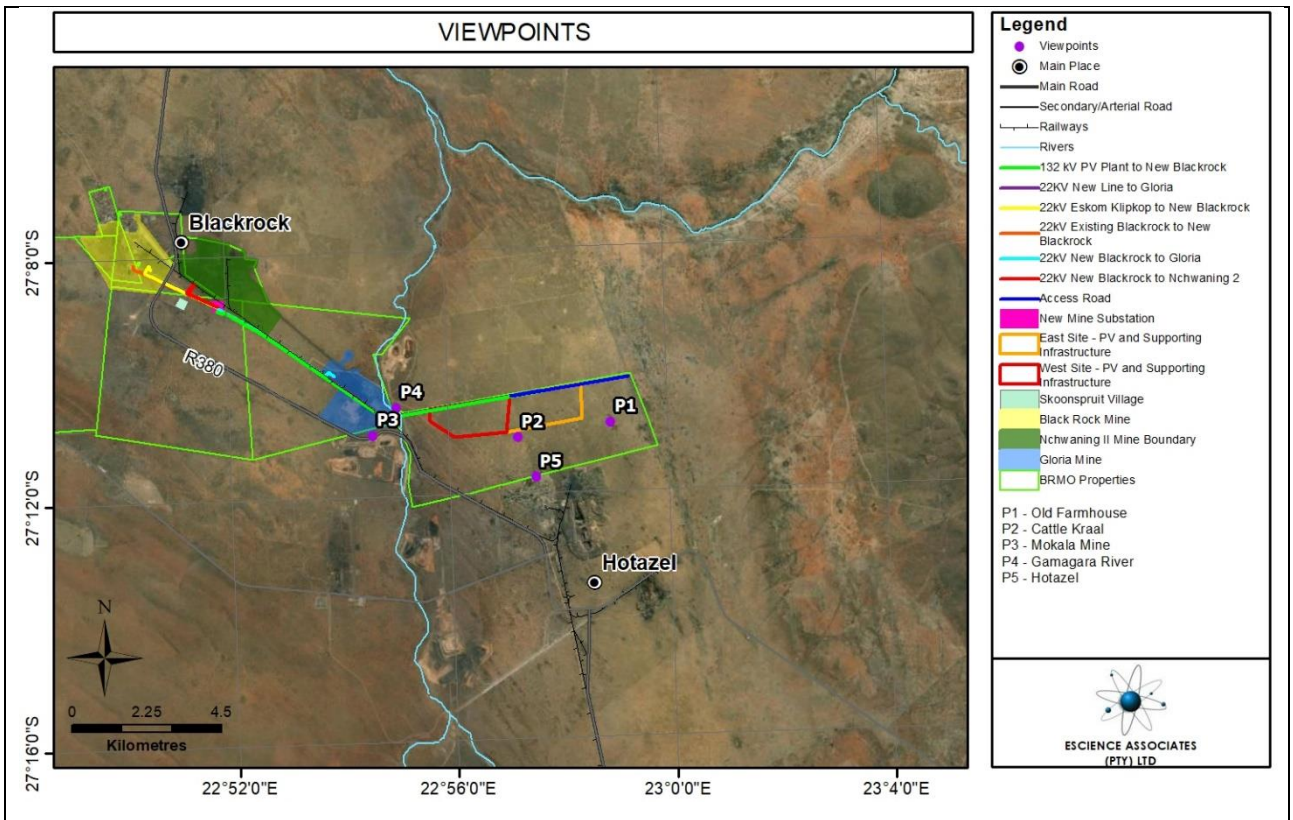

Figure 7-1: Locations of viewpoints from which view simulations were created

The selected view simulations are:

1. Figure 7-2: View from Gamagara River pre- development
2. Figure 7-3: View simulation showing the view from Gamagara River post-development
3. Figure 7-4: View 1 from Hotazel North pre-development
4. Figure 7-5: View simulation 1 showing the view from Hotazel North post-development
5. Figure 7-6: View 2 from Hotazel North pre-development
6. Figure 7-7: View simulation 2 showing the view from Hotazel North post-development
7. Figure 7-8: View 3 from Hotazel North pre-development
8. Figure 7-9: View simulation 3 showing the view from Hotazel North post-development
9. Figure 7-10: View from Mokala Mine pre-development
10. Figure 7-11: View simulation showing the view of the Mokala Mine post-development
11. Figure 7-12: View 1 from Farmhouse pre-development
12. Figure 7-13: View simulation 1 showing the view from Farmhouse post-development
13. Figure 7-14: View 2 from Farmhouse pre-development
14. Figure 7-15: View simulation 2 showing the view from Farmhouse post-development
15. Figure 7-16: View 1 from Cattle Kraal pre-development
16. Figure 7-17: View simulation 1 showing the view from Cattle Kraal post-development
17. Figure 7-18: View 2 from Cattle Kraal pre-development
18. Figure 7-19: View simulation 2 showing the view from Cattle Kraal post-development
19. Figure 7-20: View 3 from Cattle Kraal pre-development
20. Figure 7-21: View simulation 3 showing the view from Cattle Kraal post-development
21. Figure 7-22: View 4 from Cattle Kraal pre-development
22. Figure 7-23: View simulation 4 showing the view from Cattle Kraal post-development

The inset on the left of the images shows the location of the viewpoint as well as the viewing direction.

Figure 7-2: View from Gamagara River pre- development

Figure 7-3: View simulation showing the view from Gamagara River post-development

Figure 7-4: View 1 from Hotazel North pre-development

Figure 7-5: View simulation 1 showing the view from Hotazel North post-development

Figure 7-6: View 2 from Hotazel North pre-development

Figure 7-7: View simulation 2 showing the view from Hotazel North post-development

Figure 7-8: View 3 from Hotazel North pre-development

Figure 7-9: View simulation 3 showing the view from Hotazel North post-development

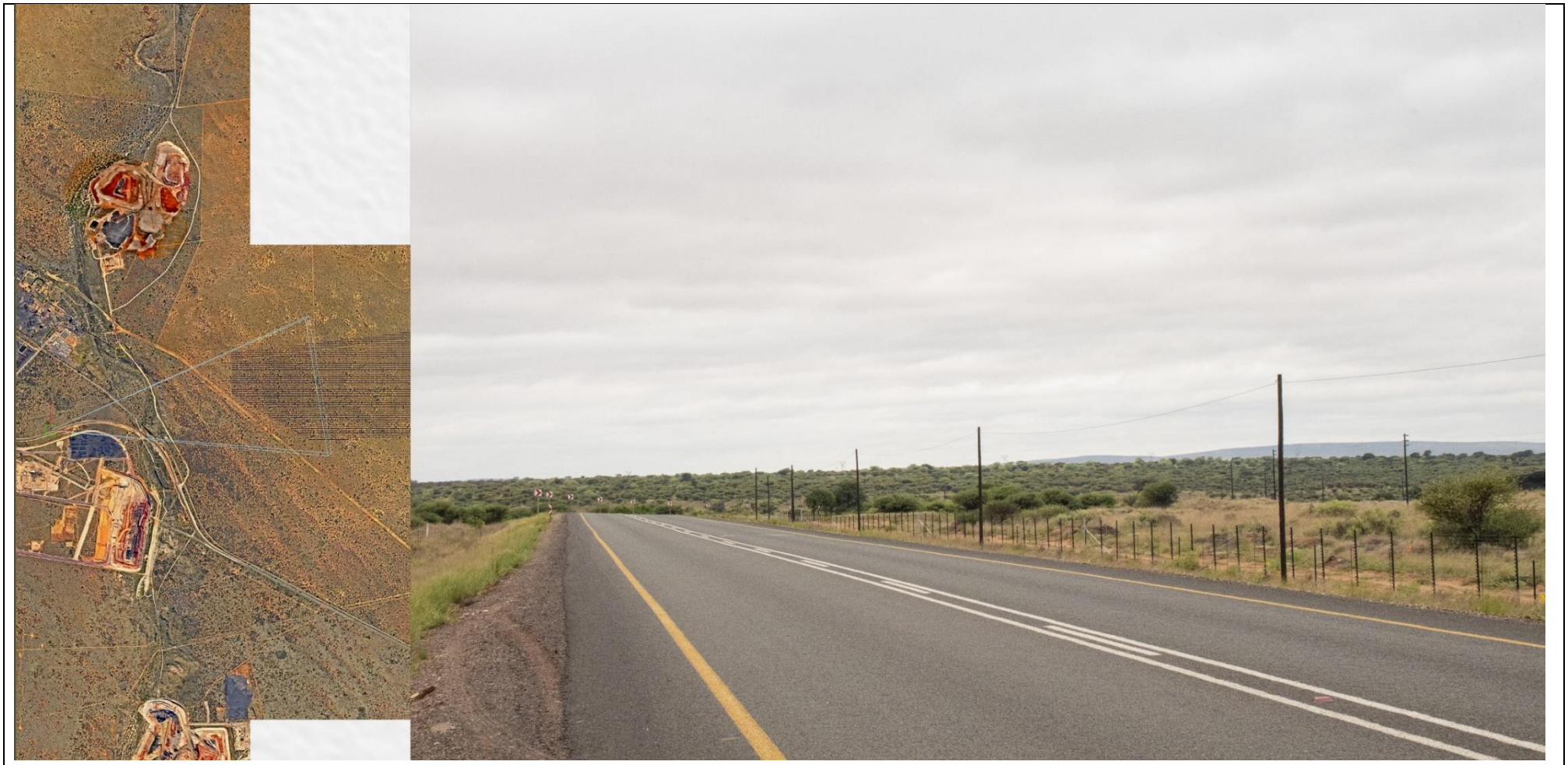

Figure 7-10: View from Mokala Mine pre-development

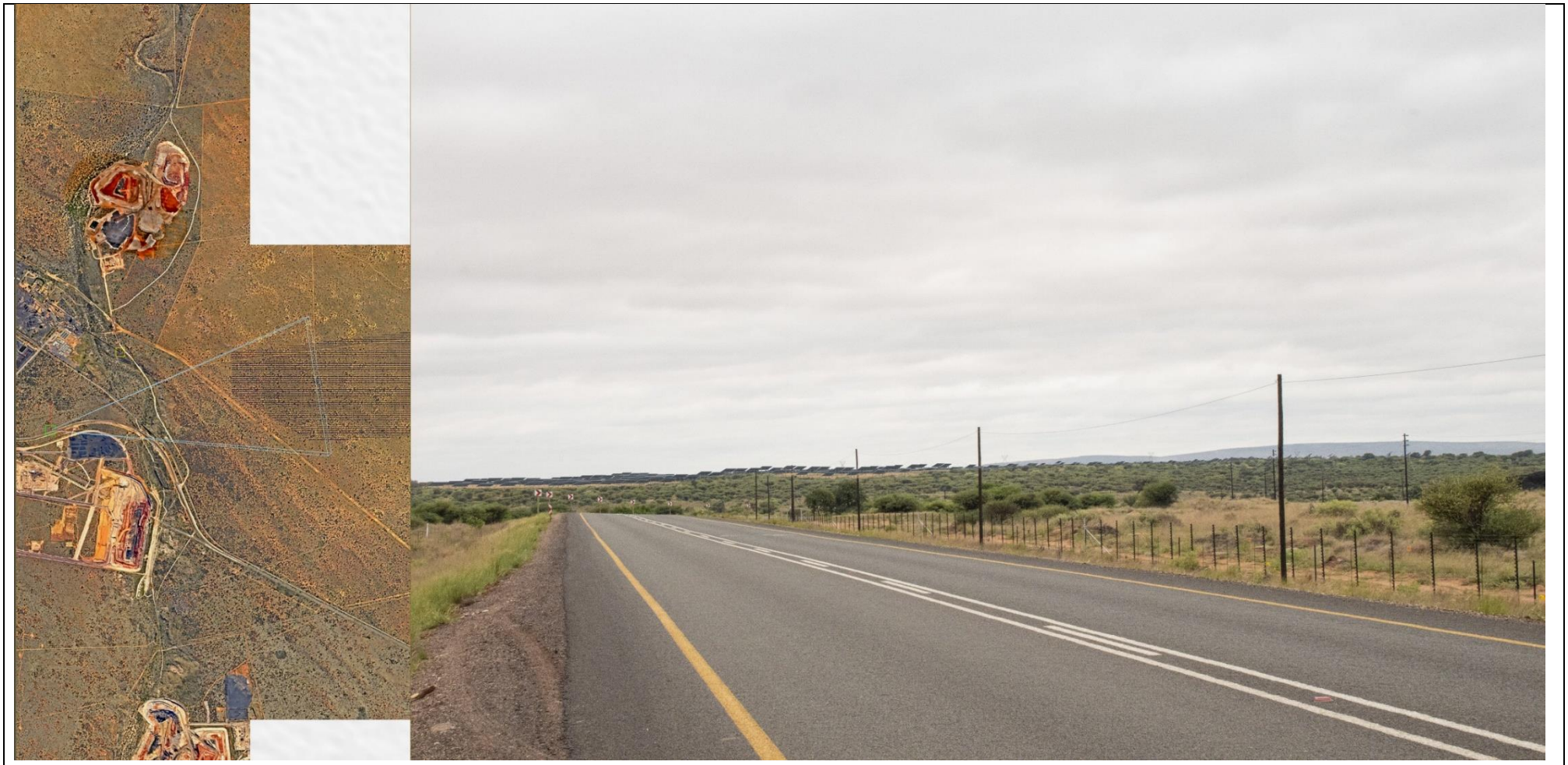

Figure 7-11: View simulation showing the view of the Mokala Mine post-development

Figure 7-12: View 1 from Farmhouse pre-development

It must be noted that this viewpoint, (P1 - Old farmhouse) was selected to provide an indication of what the PV Plant will look like from a nearby proximity, however this viewpoint is not associated with any visual receptors and is therefore not used as part of the impact assessment considerations.

Figure 7-13: View simulation 1 showing the view from Farmhouse post-development

It must be noted that this viewpoint, (P1 - Old farmhouse) was selected to provide an indication of what the PV Plant will look like from a nearby proximity, however this viewpoint is not associated with any visual receptors and is therefore not used as part of the impact assessment considerations.

Figure 7-14: View 2 from Farmhouse pre-development

It must be noted that this viewpoint, (P1 - Old farmhouse) was selected to provide an indication of what the PV Plant will look like from a nearby proximity, however this viewpoint is not associated with any visual receptors and is therefore not used as part of the impact assessment considerations.

Figure 7-15: View simulation 2 showing the view from Farmhouse post-development

It must be noted that this viewpoint, (P1 - Old farmhouse) was selected to provide an indication of what the PV Plant will look like from a nearby proximity, however this viewpoint is not associated with any visual receptors and is therefore not used as part of the impact assessment considerations.

Figure 7-16: View 1 from Cattle Kraal pre-development

It must be noted that this viewpoint, (P2 - Cattle Kraal) was selected to provide an indication of what the PV Plant will look like from a nearby proximity, however this viewpoint is not associated with any visual receptors and is therefore not used as part of the impact assessment considerations.

Figure 7-17: View simulation 1 showing the view from Cattle Kraal post-development

It must be noted that this viewpoint, (P2 - Cattle Kraal) was selected to provide an indication of what the PV Plant will look like from a nearby proximity, however this viewpoint is not associated with any visual receptors and is therefore not used as part of the impact assessment considerations.

Figure 7-18: View 2 from Cattle Kraal pre-development

It must be noted that this viewpoint, (P2 - Cattle Kraal) was selected to provide an indication of what the PV Plant will look like from a nearby proximity, however this viewpoint is not associated with any visual receptors and is therefore not used as part of the impact assessment considerations.

Figure 7-19: View simulation 2 showing the view from Cattle Kraal post-development

It must be noted that this viewpoint, (P2 - Cattle Kraal) was selected to provide an indication of what the PV Plant will look like from a nearby proximity, however this viewpoint is not associated with any visual receptors and is therefore not used as part of the impact assessment considerations.

Figure 7-20: View 3 from Cattle Kraal pre-development

It must be noted that this viewpoint, (P2 - Cattle Kraal) was selected to provide an indication of what the PV Plant will look like from a nearby proximity, however this viewpoint is not associated with any visual receptors and is therefore not used as part of the impact assessment considerations.

Figure 7-21: View simulation 3 showing the view from Cattle Kraal post-development

It must be noted that this viewpoint, (P2 - Cattle Kraal) was selected to provide an indication of what the PV Plant will look like from a nearby proximity, however this viewpoint is not associated with any visual receptors and is therefore not used as part of the impact assessment considerations.

Figure 7-22: View 4 from Cattle Kraal pre-development

It must be noted that this viewpoint, (P2 - Cattle Kraal) was selected to provide an indication of what the PV Plant will look like from a nearby proximity, however this viewpoint is not associated with any visual receptors and is therefore not used as part of the impact assessment considerations.

Figure 7-23: View simulation 4 showing the view from Cattle Kraal post-development

It must be noted that this viewpoint, (P2 - Cattle Kraal) was selected to provide an indication of what the PV Plant will look like from a nearby proximity, however this viewpoint is not associated with any visual receptors and is therefore not used as part of the impact assessment considerations.

7.2 DEFINING VISUAL IMPACT ASSESSMENT CRITERIA

7.2.1 VISUAL EXPOSURE

Visual exposure constitutes the visual range of the development, or the geographic area from which the project will be visible.

- **High visual exposure** – covers a large area (e.g., several square kilometres)
- Moderate visual exposure – covers an intermediate area (e.g., several hectares)
- Low visual exposure – covers a small area around the project site.

The proposed development will cover a relatively large area (approximately 515 ha) – however, it is not very tall, with the height of the structures being no more than 4.5m. The powerlines however will be taller with a maximum height of 40m. The facility is located in and viewed from areas with fairly dense shrubs and trees which act to screen large parts of the PV facility from many areas. The development is anticipated to be visible from distances of up to 25 km.

The development is therefore anticipated to have **high visual exposure.**

7.2.2 A DEVELOPMENT'S COMPATIBILITY OR CONTRAST WITH THE ENVIRONMENT

The contrast ratio of the development in relation to its environment can be calculated by means of the following parameters employed in determining compositional Gestalt:

i.) What is the development's height in relation with its environment?

(the height of the installation in relation to the landform of the environment acts upon its contrast ratio).

Higher than landform/vegetation (3) Medium height (2) **Low (1)**

ii.) What are the predominant shapes involved in the development?

(It is argued that the more geometric the shapes, the more man-made the development will appear).

Geometric shapes (3) Combination of shapes (2) Organic shapes (1)

iii.) Colour:

(A colour wheel can be employed to determine the degree to which the use of colour is complementary or supplementary to the colour of the environment).

Complementary Colours (3) **Supplementary Colours (2)** Neutral Colours (1)

iv.) Texture:

(Depending on the textures in the environment, either abundance or absence of texture could be incompatible with the environment).

Low compatibility (3) **Medium compatibility (2)** High compatibility (1)

*** Instructions:**

The total score will indicate the general level of compatibility of the development with the landscape:

Score 0 - 4 – *High compatibility* – blends in well with the surroundings.

Score 5 - 8 – *Medium compatibility* – partially fits into the surroundings, but clearly noticeable.

Score 9 - 12 – *Low compatibility* – visually intrudes or is discordant with the surroundings.

The Score is **8/12** – thus **medium compatibility** with the existing surrounding environment is determined.

7.3 LEVEL OF CHANGE TO THE ENVIRONMENT

Each of the ten questions below has been considered and responses that most closely applied to the project in question had been selected. Each response has a corresponding point value. The total score will represent the level of change of the development.

As can be seen in Figure 7-2 to Figure 7-23, the shrubs and trees screen the proposed PV facility from many viewpoints, the landscape does, intermittently, successfully visually absorb the development.

7.3.1 CHANGE TO THE VISUAL ENVIRONMENT

i.) Will the project result in a noticeable change in the physical characteristics of the existing environment?

(Considering current receiving environment, all project components and construction impacts).

High level of change (3) Moderate level of change (2) **Low level of change (1)**

ii.) Will the project complement or contrast with the visual character desired by the community?

(Evaluating the scale and extent of the project features compared to the surrounding scale of the community. Is the project likely to give an urban appearance to an existing rural or suburban community? Is the change viewed as positive or negative? Research planning documents or talk with local planners and community representatives to get a rough idea of what type of visual environment local residents envision for their community).

Highly incompatible (3) Somewhat incompatible (2) **Somewhat compatible (1)**

iii.) What types of project features and construction impacts are proposed? Are bridge structures, large excavations, sound barriers, or median planting removal proposed?

(Certain project improvements can be of special local interest, causing a heightened level of public concern, and requiring a more focused visual analysis.)

High concern (3) Moderate concern (2) **Low concern (1)**

iv.) Will the project changes likely be mitigated by normal means such as landscaping and architectural enhancement, or will avoidance measures be necessary to minimize adverse change?

(Consider the type of changes caused by the project, i.e., can undesirable views be screened, or will desirable views be permanently obscured)?

Project alternative may be needed (3) Extensive mitigation likely (2) **Normal mitigation (1)**

v.) Will this project, when seen collectively with other projects, result in an aggregate adverse change in overall visual quality or character?

(Identification of contributing projects should include any in the area that have been constructed within the last couple of years and those currently envisioned or planned for future construction. The window of time and the extent of area applicable to possible cumulative impacts should be based on a reasonable anticipation of the viewing public's perception).

Impacts likely in 0-5 years (3) Impacts likely in 6-10 years (2) **Cumulative Impacts unlikely (1)**

7.3.2 VIEWER SENSITIVITY

vi.) What is the potential that the project proposal may be controversial within the community, or opposed by any organized group?

High Potential (3) Moderate Potential (2) **Low Potential (1)**

vii.) How sensitive are potential viewer-groups likely to be regarding visible changes proposed by the project?

(Considering among other factors the number of viewers within the group, probable viewer expectations, activities, viewing duration, and orientation).

High Sensitivity (3) Moderate Sensitivity (2) **Low Sensitivity (1)**

viii.) To which degree does the project appear to be consistent with applicable laws, ordinances, regulations, policies or standards?

(These documents are critical in understanding the importance the local communities place on aesthetic issues).

Incompatible (3) Moderately compatible (2) **Largely compatible (1)**

ix.) Are any permits going to be required by outside regulatory agencies (national, provincial or municipal) to allow development to proceed?

Yes (3) Maybe (2) No (1)

x.) Will the Project Development Team or public benefit from a more detailed visual analysis in order to help reach consensus on a course of action?

(Considering the proposed project features possible environmental impacts, and probable mitigation recommendations).

Yes (3) Maybe (2) **No (1)**

Score 25-30 – Very high visual change rating

Score 20-24 – High visual change rating

Score 15-19 – Moderate visual change rating

Score 10-14 – Low visual change rating

The Score is **12/30** – The proposed development is characterised by a **low visual change rating.**

7.4 VISUAL IMPACT ASSESSMENT CRITERIA

The assessment of impacts is based on a synthesis of the visual change rating and the following assessment criteria (Oberholzer, 2005)[5]:

Extent – the spatial or geographic area of influence of the visual impact, i.e.:

- *site-related:* extending only as far as the activity (1)
- *local:* limited to the immediate surroundings (2)
- ***regional:* affecting a larger metropolitan or regional area (3)**
- *national:* affecting large parts of the country (4)
- *international:* affecting areas across international boundaries (5)

Duration – the predicted lifespan of the visual impact:

- *short term,* (e.g. duration of the construction phase) (1)
- *medium term,* (e.g. duration for screening vegetation to mature) (2)
- ***long term,* (e.g. lifespan of the project) (3)**
- *permanent,* where time will not mitigate the visual impact. (5)

Intensity – the magnitude of the impact on views, scenic or cultural resources.

- ***low,* where visual and scenic resources are not affected (1)**
- *medium,* where visual and scenic resources are affected to a limited extent (3)
- *high,* where scenic and cultural resources are significantly affected. (5)

Probability – the degree of possibility of the visual impact occurring:

- *improbable,* where the possibility of the impact occurring is very low (1)
- ***probable,* where there is a distinct possibility that the impact will occur (2)**
- *highly probable,* where it is most likely that the impact will occur (3)
- *definite,* where the impact will occur regardless of any prevention measures. (5)

(probable (2) is elected due to the limited number of sensitive receptors within the viewshed)

Significance – The significance of impacts can be determined through a synthesis of the above aspects produced in terms of their nature, duration, intensity, extent and probability, and be described as:

Score 15 - 20 – *high* visual impact significance, where it would influence the decision regardless of any possible mitigation

Score 11 - 14 – *medium* visual impact significance, where it should have an influence on the decision unless it is mitigated

Score 0 - 10 – *low* visual impact significance, where it will not have an influence on the decision

The Score is **9/20** – The proposed development poses a **low visual impact significance, where it will not have an influence on the decision.**

8 CONCLUSIONS

8.1 ASSESSMENT OF SIGNIFICANCE OF VISUAL IMPACT

- Due to the development's size, it is anticipated to have **high visual exposure** for some vantage points **(without considering viewer sensitivity or compatibility with receiving environment).**
- The level of contrast the development will have in relation to its environment scores **8/12**, constituting a contrast value of **66%.** This indicates a **medium compatibility** with surrounding scenery.
- The proposed development poses an anticipated visual change rating of **12/30**, thus constituting a **low visual change rating.**
- The proposed development poses an anticipated visual impact significance rating of **9/20**, thus constituting **a low visual impact significance, where it will not have an influence on the decision.**

The proposed development area is mainly mixed agriculture, mining, and shrubland as well as the small town of Hotazel. The Black Rock Mining Operations (BRMO) extend to the east of the proposed facility. It must be noted that the proposed PV facility will become part of a landscape that is already characterised by a number of highly visible mines in the area, such as Black Rock, Mokala, Wessels, Kalagadi, Kudumane, Hotazel. Therefore, it must be noted that the addition of the solar farms is not anticipated to stand in contrast with the receiving environment and is thus not expected to significantly alter the sense of place

From a visual impact perspective we are of the opinion that the proposed Black Rock Solar PV Facility and the associated infrastructure described in section 2 of this report should be authorised in the proposed location.

These findings are supported by the view simulations shown in Figure 7-2 to Figure 7-11.

8.2 MITIGATION MEASURES

The visual impact assessment and associated view simulations have been conducted with no mitigation. The impact is deemed to be acceptable without mitigation and as such no mitigation is proposed from a visual impact perspective.

8.3 NEED AND DESIRABILITY

South Africa, and in particular, the Northern Cape, is subject to some of the highest levels of solar radiation in the world, thus strengthening the case for Solar PV facilities in the province.

The securing of alternative energy sources, like solar PV, has become high priority for mines, considering that the current national energy production is not able to meet the increased energy demand of the Country. This leads to frequent electricity shortage and fluctuations in supply ("load shedding"), detrimental to the economic development of South Africa. Therefore, the development of the proposed solar farms will represent a key feature in the fulfilment of energy security.

Additional potential benefits include:

- Reducing water consumption associated with coal fired electricity generation;
- Reducing pollution, when compared to coal fired electricity generation;
- Local economic development
- Local skills development.

APPENDIX 1 - SPECIALIST DECLARATION

Specialist Company Name:	Escience Associates (Pty) Ltd
Name of Practitioner:	Abdul Ebrahim
Specialist Qualifications:	BSc Nat Sci Chemistry and Geography
Professional affiliation/registration:	Registered Professional Natural Scientist (SACNASP) Registration number 400053/17 IAIA (Member International Association for Impact Assessment)

Declaration of independence and accuracy of information provided:

Visual Impact Assessment.

I, Abdul Ebrahim, declare that

- 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 and is punishable in terms of section 24F of the Act.

Signed at: _____ on _____

_____

SIGNATURE