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DRAFT

BASIC ASSESSMENT REPORT

FOR THE

PROPOSED INSTALLATION OF SERVICES ASSOCIATED WITH THE KOEBERG NUCLEAR POWER STATION, DUYNEFONTEIN, CITY OF CAPE TOWN METROPOLITAN MUNICIPALITY, WESTERN CAPE PROVINCE.

Compiled in terms of Appendix 1 of the Environmental Impact Assessment Regulations of 2014, as amended (GNR 326 of 2017; GNR517 of 2021), as promulgated in terms of the National Environmental Management Act of 1998 (Act No 107 of 1998).

PREPARED FOR:	Eskom Holdings SOC Ltd
DFFE REF:	TBC
SES REF NO:	CT05/KNPI/DBAR/08/25
DATE:	14 August 2025

PROJECT INFORMATION

Project Title:	PROPOSED INSTALLATION OF SERVICES ASSOCIATED WITH THE KOEBERG NUCLEAR POWER STATION, DUYNEFONTEIN, CITY OF CAPE TOWN METROPOLITAN MUNICIPALITY, WESTERN CAPE PROVINCE.
Applicant:	ESKOM HOLDINGS SOC LTD
Contact Details:	Power Station General Manger Care of: Mr. Velaphi Ntuli Email: ntuliv@eskom.co.za
Property information:	Farm Duynefontyn 1552
Details of the Environmental Assessment Practitioner (EAP):	Sharples Environmental Services CC Responsible EAP: Madeleine Knoetze (EAPASA Reg. 2021/3230) Overseeing EAP: Betsy Ditcham (EAPASA Reg: 2020/1480)
Contact details of the EAP:	E-mail: madeleine@sescc.net Tel: 021 554 5195
SES Report Reference:	CT05/KNPI/DBAR/06/25
Report Status:	Draft Basic Assessment Report
DFFE Reference Number:	TBC
Date of Report:	14 August 2025

BACKGROUND, PRIORITY AND PROCESSING REQUEST

Construction of the Eskom Koeberg Nuclear Power Station began in 1976, with the commissioning of the plant components starting in 1984. As part of the construction of the plant, services were installed in order to allow connectivity between the various portions of the plant. Eskom Holdings SOC Ltd. proposes to unearth and upgrade the services located in a specific portion of the plant (North of the reactors) to the modern standard for construction and safety requirements. As recording of infrastructure installation was not standardised in the 1980s, the unearthing of services will prove to be challenging as, although marked, the exact location of infrastructure is not known. Therefore, as part of the modernisation and upgrading of the infrastructure, vegetation would have to be sporadically cleared within a predetermined area. The proposed installation is located in an area identified as Cape Flats Dune Strandveld, listed as an Endangered Ecosystem, in terms of the List of Ecosystems that are Threatened and in need of Protection, promulgated by the Department of Forestry, Fisheries and Environment (DFFE) and will potentially be partially located within 100 m of the highwater mark of the Atlantic Ocean.

Due to the anticipated extent of the clearance and the threatened status of the ecosystem type, together with the fact that the area has not been lawfully cleared in the past 10 years, a Basic Assessment Process in terms of the EIA Regulations of 2014, as amended (GNR 326 of 2017, as amended) is required for the unearthing and reinstallation process of the infrastructure.

The total footprint of the study area is approximately 11.5 ha, 5.4 ha of which has already been transformed by infrastructural components (including the existing main power plant area, a portion of the Temporary Infrastructure Storage Facility, the Original Steam Generator Interim Storage Facility, and the construction associated with the approved hardened water reservoir). Therefore, only approximately 6.1 ha (including the area between the inner boundary fence and the outer boundary fence of the Koeberg Nuclear Plant is considered indigenous vegetation to be cleared for the proposed works.

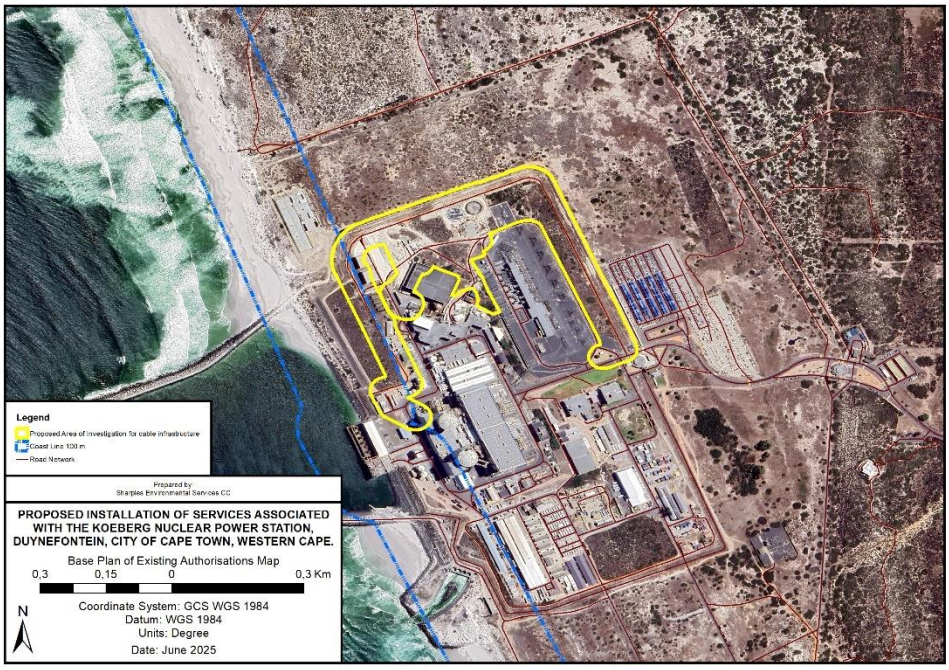

Figure A: The extent of the Area of Investigation associated with the proposed cable infrastructure upgrades.

The following specialist assessments were undertaken for the proposed cable infrastructure project:

- Terrestrial Biodiversity & Plant Compliance Statement: Bergwind Botanical Surveys and Tours cc (Dave McDonald);
- Aquatic Biodiversity Compliance Statement: Upstream Consulting (Debbie Fordham);
- Agricultural Compliance Statement: SoilZA (Johann Lanz);
- Animal Species Compliance Statement: BlueSkies Research (Jacobus Visser); and
- Notice of Intent to Develop: ACRM (Jonathan Kaplan).

Based on the assessments undertaken by the specialists, the cumulative impact of the proposed project on the receiving environment is expected to be Low.

The need for the project is rooted in the need for reliable internal infrastructure (within the different portions of the KNPS). Due to the age of the existing infrastructure, the integrity and reliability of the existing buried infrastructure has been compromised as the infrastructure has not been upgraded to the current engineering standards and specifications. Koeberg Power Station supplies approximately 4.4 % (Total output capacity of 1860 MW[1]) of the Nation's electricity.

The Public Participation Process for the proposed cable infrastructure will be undertaken in line with Regulation 41 of the Environmental Impact Assessment (EIA) Regulations of 2014, as amended. Accordingly, this Basic Assessment Report, the Environmental Management Programme and all appendices will be made available for public review and commenting from the **14th of August 2025 – 15th of September 2025 (30+ days).** Please note that due to the timeframes associated with the urgency of this processing of the Application, should comments be submitted after the **15th of September 2025**, there is no guarantee that late comments will be incorporated into the Final Basic Assessment Report to be submitted to the Department of Forestry, Fisheries and Environment for decision-making purposes.

[1] G. Dladla through the National Nuclear Regulator. *Electricity Generation Through the Koeberg Nuclear Power Station of Eskom in South Africa.*

COMPLIANCE OF THIS BASIC ASSESSMENT REPORT WITH APPENDIX 1 OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS OF 2014, AS AMENDED.

Appendix 1 of the Environmental Impact Assessment Regulations of 2014, as amended (Government Notice Regulation (GNR) 326 of 2017; GNR 517 of 2021) promulgated in terms of the National Environmental Management Act No.107 of 1998 (NEMA), states the requirements for the content of a Basic Assessment Report to be as follows:

"A basic assessment report must contain the information that is necessary for the competent authority to consider and come to a decision on the application, and must include– "

The Table below lists the content requirements of a BA Report and where in this BAR one can find the required content.

REQUIREMENT	SECTION IN REPORT
(a) details of – (i) the EAP who prepared the report; and (ii) the expertise of the EAP, including a curriculum vitae	Section 1.2
(b) the location of the activity, including: (i) the 21-Digit Surveyor General Code of each cadastral land parcel; (ii) where available, the physical address and farm name; (iii) where the required information in items (i) and (ii) is not available, the coordinates of the boundary of the property or properties	Section 4.1
(c) a plan which locates the proposed activity or activities applied for as well as associated structures and infrastructures at an appropriate scale; Or, it it is – (i) A linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken; or (ii) on land where the property has not been defined, the coordinates within which the activity is to be undertaken.	Section 4.1
(d) a description of the scope of the proposed activity, including – (i) all listed and specified activities triggered and being applied for; and (ii) a description of the activities to be undertaken including associated structures and infrastructure;	 Section 2.5 Section 4
(e) a description of the policy and legislative context within which the development is proposed including – (i) an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments that are applicable to this activity and have been considered in the preparation of the report; and (ii) how the proposed activity complies with and responds to the legislation and policy context, plans, guidelines, tools frameworks, and instruments;	Section 2
(f) a motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred locations	Section 7
(g) a motivation for the preferred site, activity and technology alternative;	Section 6
(h) a full description of the process followed to reach the proposed preferred alternative within the site, including-	
(i) details of all the alternatives considered;	Section 6
(ii) details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs;	Section 8
(iii) a summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them;	N/A
(iv) the environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspect;	Section 9
(v) the impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration, and probability of the impacts, including the degree to which these impacts- (aa) can be reversed;	Section 10

REQUIREMENT	SECTION IN REPORT
(bb) may cause irreplaceable loss of resources; and (cc) can be avoided, managed or mitigated	
(vi) the methodology used in determining and ranking the nature, significance, consequence, extent, duration and probability of potential environmental impacts and risks associated with the alternative;	Section 10.2
(vii) positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;	Section 10
(viii) the possible mitigation measures that could be applied and level of residual risks;	Section 1011.2
(ix) the outcome of the site selection matrix;	Section 6
(x) if no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such; and	Section 6
(xi) a concluding statement indicating the preferred alternatives, including preferred location of the activity.	Section 1111.2
(i) a full description of the process undertaken to identify, assess and rank the impacts the activity will impose on the preferred location through the life of the activity, including – (i) a description of all environmental issues and risks that were identified during the environmental impact assessment process; and (ii) an assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures;	Section 10.2 Section 10.1 Section 10.3
(j) an assessment of each identified potentially significant impact and risk, including – (i) cumulative impacts; (ii) the nature, significance and consequence of the impact and risk; (iii) the extent and duration of the impact and risk; (iv) the probability of the impact and risk occurring; (v) the degree to which the impact and risk can be reversed; (vi) the degree to which the impact and risk may cause irreplaceable loss of resources; and (vii) the degree to which the impact and risk can be avoided, managed or mitigated.	Section 10
(k) where applicable, a summary of the findings and impact management measures identified in any specialist report complying with Appendix 6 of to these Regulations and an indication as to how these findings and recommendations have been included in the final report;	Section 9 Section 10
(l) an environmental impact statement which contains – (i) a summary of the key findings of the environmental impact assessment; (ii) map at an appropriate scale which superimposes the proposed activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers; and (ii) a summary of the positive and negative impacts and risks of the proposed activity and identified alternatives;	Section 11 Figure 11-1 - 11.2
(m) based on the assessment, and where applicable, impact management measures from specialist reports, the recording of the proposed impact management outcomes for the development for inclusion in the EMPr;	Section 10
(n) any aspects which were conditional to the findings of the assessment either by the EAP or specialist which are to be included as conditions of authorisation;	Section 11.2
(o) a description of any assumptions, uncertainties, and gaps in knowledge by which relate to the assessment and mitigation measures proposed;	Section 3
(p) a reasoned opinion as to whether the proposed activity should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be made in respect to that authorisation;	Section 11.2
(q) where the proposed activity does not include operational aspects, the period for which the environmental authorisation is required, the date on which the activity will be concluded, and the post construction monitoring requirements finalised.	Section 11.2
(r) an undertaking under oath or affirmation by the EAP in relation to – (i) the correctness of the information provided in the reports; (ii) the inclusion of comments and inputs from stakeholders and I&Aps;	Appendix J

REQUIREMENT	SECTION IN REPORT
(iii) the inclusion of inputs and recommendations from the specialist reports where relevant; and (iv) any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties; and	
(s) where applicable, details of any financial provision for the rehabilitation, closure, and ongoing post decommissioning management of negative environmental impacts;	N/A
(t) any specific information that may be required by the competent authority; and	N/A
(u) any other matters required in terms of Section 24(4)(a)(b)	N/A

GLOSSARY OF TERMS

Activity: An activity or operation carried out as part of the construction or operation of the housing development and associated infrastructure.

Alternatives: In relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to –

i. The property on which or location where it is proposed to undertake the activity;
ii. The type of activity to be undertaken;
iii. The design or layout of the activity;
iv. The technology to be used in the activity, and;
v. The operational aspects of the activity.

Anthropogenic impacts: Impacts originating in human activity, e.g. pollution, mining, destruction of vegetation etc.

Biodiversity: The diversity, or variety, of plants, animals and other living things in a particular area or region. It encompasses habitat diversity, species diversity and genetic diversity.

Community: Those people who may be impacted upon by the construction and operation of the project. This includes neighbouring landowners, local communities and other occasional users of the area.

Competent Authority The decision-making authority responsible for evaluating the viability of the proposal and issuing the appropriate Authorisation. Also see Department of Forestry, Fisheries and Environment.

Consultation: A process for the exchange of views, concerns and proposals about a proposed project through meaningful discussions and the open sharing of information.

Construction Phase: The stage of project development comprising site preparation as well as all construction activities associated with the development.

Cumulative Impact: The impact of an activity that by itself may not be significant but combined with other existing and potential future impacts may be significant.

Department of Forestry, Fisheries and Environment: This Department is responsible for evaluating the viability of the development proposal and issuing the appropriate Authorisation.

Ecology: The study of the interrelationships of organisms with and within their environment.

Ecosystem: The interconnected assemblage of all species populations that occupy a given area and the physical environment with which they interact.

Endemic / Endemism: Found only within the study area / tendency of being found only in the study area.

Environment: The surroundings within which humans exist and that are made up of

i. The land, water and atmosphere of the earth;
ii. Microorganisms, plant and animal life;
iii. Any Part or combination of (i) and (ii) and the interrelationships among and between them; and
iv. The physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and wellbeing.

Environmental Authorisation: The authorisation by a competent authority of a listed activity.

Environmental Assessment Practitioner (EAP): The person responsible for planning, management and co-ordination of environmental impact assessment, strategic environmental assessments, environmental management plans or any other appropriate environmental instrument introduced through regulations.

Environmental Impact Assessment (EIA): In relation to an application to which scoping must be applied, means the process of collecting, organizing, analysing, interpreting and communicating information that is relevant to the consideration of that application. This process necessitates the compilation of an Environmental Impact Report, which describes the process of examining the environmental effects of a proposed development, the anticipated impacts and proposed mitigatory measures.

Environmental Management Programme (EMPr) A management programme designed specifically to introduce the mitigation measures proposed in the Reports and contained in the Conditions of Approval in the Authorisation.

Fauna: The collective animals of a region.

Flora: The collective plants growing in a geographic area.

Heritage resources: A building, area, a ritual, etc. that forms part of a community's cultural legacy or tradition and is passed down from preceding generations.

Hydrological: (The study of) surface water flow.

Impact:	A change to the existing environment, either adverse or beneficial, that is directly or indirectly due to the development of the project and its associated activities.
Integrated Environmental Management	The practice of incorporating environmental management into all stages of a project's life cycle, namely planning, design, implementation, management and review.
Integrated and Affected Party (I&AP)	Any individual, group, organization or associations which are interested in or affected by an activity as well as any organ of state that may have jurisdiction over any aspect of the activity.
Mitigation Measures	Design or management measures that are intended to avoid and/or minimise or enhance an impact, depending on the desired effect. These measures are ideally incorporated into a design at an early stage.
NEMA EIA Regulations:	The EIA Regulations means the regulations made under section 24(5) of the National Environmental Management Act (Act 107 of 1998) (Government Notice No. R 324, R 325, R 326 and R 327 in the Government Gazette of 7th April 2017 refer).
No-go alternative:	The option of not proceeding with the activity, implying a continuation of the current situation / status quo.
Operational Phase:	The stage of the works following the Construction Phase, during which the development will function or be used as anticipated in the Environmental Authorisation.
Public Participation Process (PPP)	A process in which potential Interested and Affected Parties are given an opportunity to comment on, or raise issues relevant to, specific matters.
Radioactive Contaminants	Contamination through radiation (external contamination with radioactive materials) or internal contamination with radioactive material (through exposure of radioactive material incorporated into the biophysical environment)
Red Data List:	Species of plants and animals that because of their rarity and/or level of endemism are included on a Red Data List (usually compiled by the International Union for Conservation of Nature (IUCN)) which provides an indication of their threat of extinction and recommendations for their protection.
Registered Interested and Affected Party:	All persons who, as a consequence of the Public Participation Process conducted in respect of an application, have submitted written comments or attended meeting with the applicant or environmental assessment practitioner (EAP); all persons who have requested the applicant or the EAP in writing, for their names to be placed on the register and all organs of state which have jurisdiction in respect of the activity to which the application relates.
Species of Conservation Concern	Species of Conservation Concern (SCC) that have either been highlighted as species of concern through the National Web-Based Environmental Screening Tool, or a species that has been identified as being recognised as in danger and in need of protection in terms of the IUCN (International Union for Conservation) Red List.
Site Ecological Importance	Site Ecological Importance (SEI) is a function of the Biodiversity Importance of the sensitive receptors within a proposed development site and its resilience to anticipated impacts.
SEP Tanks	Potable Water Distribution Tanks form part of the water distribution system of the power station and provides the plant with potable water.
Significant impact:	Means an impact that by its magnitude, duration, intensity or probability of occurrence may have a notable effect on one or more aspects of the environment.
Spent fuel	Spent nuclear fuel is fuel that has been irradiated in a nuclear reactor and is no longer useful in sustaining a nuclear reaction in an ordinary thermal reactor.
Spatial Development Framework (SDF):	A document required by legislation and essential in providing conservation and development guidelines for an urban area, which is situated in an environmentally sensitive area and for which major expansion is expected in the foreseeable future.
Specialist Study	A study into a particular aspect of the environment, undertaken by an expert in that discipline.
Stakeholders:	All parties affected by and/or able to influence a project, often those in a position of authority and/or representing others.
Sustainable Development:	Development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. NEMA defines sustainable development as the integration of social, economic and environmental factors into planning, implementation and decision-making so as to ensure that development serves present and future generations.

ABBREVIATIONS

BA	Basic Assessment
BAR	Basic Assessment Report
BEE	Black Economic Empowerment
BNG	Breaking New Ground
CA	Competent Authority
CBA	Critical Biodiversity Area
CCT	City of Cape Town Metropolitan Municipality
CR	Critically Endangered
DFFE	Department of Forestry, Fisheries and Environment
DWS	Department of Water and Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMF	Environmental Management Framework
EMPr	Environmental Management Programme
EN	Endangered
ESA	Ecological Support Area
GCM RSIF	Greater Cape Metro Regional Spatial Implementation Framework
HWC	Heritage Western Cape
I&AP	Interested and Affected Party
IDP	Integrated Development Plan
INE	International Nuclear Event
INES	International Nuclear Event Scale
KNPS	Koeberg Nuclear Power Station
NEMA	National Environmental Management Act (Act No. 107 of 1998)
NEM:BA	National Environmental Management: Biodiversity Act (Act No. 10 of 2004)
NEM:PAA	National Environmental Management: Protected Areas Act (Act No. 57 of 2003)
NEM:WA	National Environmental Management: Waste Act (Act No. 59 of 2008)
NHRA	National Heritage Resources Act (Act No. 25 of 1999)
NNR	National Nuclear Regulator
NWA	National Water Act (Act No. 36 of 1998)
PPP	Public Participation Process
SA	South Africa
SANS	South African National Standard
SDF	Spatial Development Framework
SES	Sharples Environmental Services cc
VU	Vulnerable
WCPSDF	Western Cape Provincial Spatial Development Framework

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Appendices in *Green* will be included in the Final Basic Assessment Report

1. SUMMARY AND BACKGROUND

1.1 Background to the Proposed Cable Infrastructure Upgrade project

Sharples Environmental Services cc (hereinafter referred to as SES) has been appointed by Asanele Consultants (Pty) Ltd, on behalf of Eskom Holdings SOC Ltd, to undertake the environmental process as it pertains to the activities associated with the proposed cable infrastructure upgrades within the boundaries of the Koeberg Nuclear Power Station (KNPS) on the Farm Duynefontyn No. 1552, Melkbosstrand, City of Cape Town Metropolitan Municipality, Western Cape Province.

Construction of the Eskom Koeberg Nuclear Power Station began in 1976, with the commissioning of the plant components starting in 1984. As part of the construction of the plant, services were installed in order to allow connectivity between the various portions of the plant. Eskom Holdings SOC Ltd. proposes to unearth and upgrade the services located in a specific portion of the plant (North of the reactors) to the modern standard for construction and safety requirements. As recording of infrastructure installation was not standardised in the 1980s, the unearthing of services will prove to be challenging as, although marked, the exact location of infrastructure is not known. Therefore, as part of the modernisation and upgrading of the infrastructure, vegetation would have to be sporadically cleared within a predetermined area. The proposed installation is located in an area identified as Cape Flats Dune Strandveld, listed as an Endangered Ecosystem, in terms of the List of Ecosystems that are Threatened and in need of Protection, promulgated by the Department of Forestry, Fisheries and Environment (DFFE) and will potentially be partially located within 100 m of the highwater mark of the Atlantic Ocean (Figure 1-1).

Due to the anticipated extent of the clearance and the threatened status of the ecosystem type, together with the fact that the area has not been lawfully cleared in the past 10 years, a Basic Assessment Process in terms of the EIA Regulations of 2014, as amended (GNR 326 of 2017, as amended) is required for the unearthing and reinstallation process of the cable infrastructure.

This Basic Assessment (BA) has been compiled in accordance with Appendix 1 of the Environmental Impact Assessment (EIA) Regulations of 2014, as amended (Government Notice Regulation [GNR] 326 of 2017; GNR 517 of 2021) as promulgated in terms of the National Environmental Management Act, 1998 (NEMA; Act No. 107 of 1998) as listed activities in terms of Listing Notice 1 and 3 of 2014, as amended (GNR 324 & 327 of 2017; GNR 517 of 2021) will be triggered by the construction and post-construction / rehabilitation activities of the proposed cable infrastructure upgrade project.

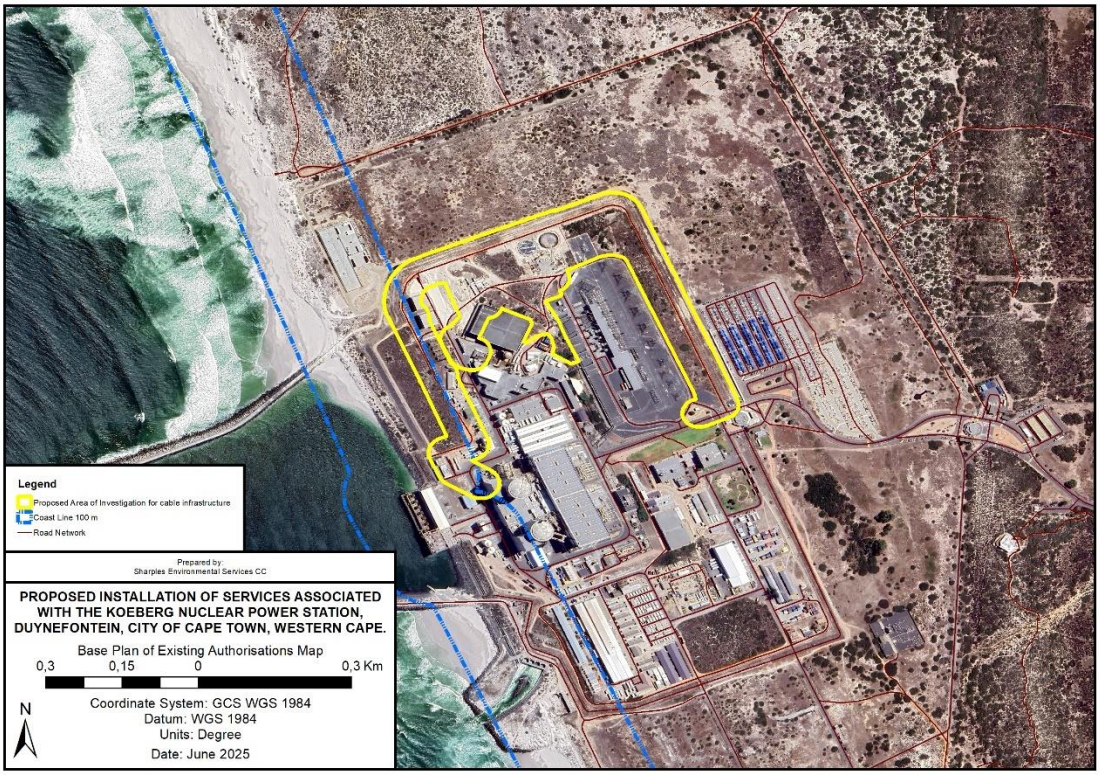

Figure 1-1. Proposed cable infrastructure investigation area located on the Farm Duynefontyn 1552.

1.2 Details of the Environmental Assessment Practitioner

Sharples Environmental Services cc is an independent environmental consultancy and has been actively engaged in the fields of environmental planning, assessment and management since 1998. We advise private, corporate and public enterprises on a variety of differing land use applications ranging from large-scale energy facilities, residential estates, resorts and golf courses to service infrastructure installations and the planning of major arterials. SES has offices in George and in Cape Town.

Author of Report: Madeleine Knoetze (Senior Environmental Assessment Practitioner) – Madeleine holds a Bachelor of Science in Environmental Sciences from the Nelson Mandela Metropolitan University obtained in 2014. She has 10+ years' experience in the environmental field, she has proven competency in the compilation of environmental assessments, water use licence applications, legal compliance, on-site monitoring, rehabilitation reporting, aquatic impact assessments and Geographic Information Systems (GIS). To date she has completed numerous environmental assessments, management plans, licencing applications, aquatic assessments and audits within the private and governmental spheres. Madeleine is registered with EAPASA as a certified Environmental Practitioner (EAPASA #3230).

Report Reviewer: BETSY DITCHAM (Director and Principle Environmental Assessment Practitioner) - Betsy has a Bachelor of Science Honours Degree in Wildlife Management from the University of Pretoria and a Bachelor of Science Degree (Zoology and Ecology) obtained from the University of Cape Town in 2005. She has 16+ years' experience in the environmental field, including environmental assessments, legal compliance, on-site compliance monitoring, cleaner production and business greening and sustainability (carbon and environmental footprinting). In her time as a consultant, she has compiled a number of environment assessments and management plans for both private and governmental clients. Betsy is a

shareholder of SEScc and registered with EAPASA as a certified Environmental Practitioner (EAPASA #1480).

The Curriculum Vitae and Declaration of Independence of the Environmental Assessment Practitioners (EAPs) and all specialists have been included as Annexure J of this BAR.

Table 1-1 below provides a list of the independent specialists appointed to determine the sensitivity of the Area of Investigation and to evaluate the anticipated impacts of the proposed cable infrastructure project on the surrounding environment.

Table 1-1. Independent specialists appointed to evaluate the anticipated impacts of the proposed project on the receiving environment.

Environmental Theme	Specialist Company Name	Specialist Name	Registration Nr.
Aquatic Biodiversity	Upstream Consulting	Debbie Fordham	SACNASP: 119102
Terrestrial Biodiversity Plant Species	Bergwind Botanical Surveys and Canopy Tours cc	Dave McDonald	SACNASP: 400094/06
Animal Species	Blue Skies Research	Dr. Jacobus Visser	SACNASP: 128018
Agriculture Sensitivity	Johann Lanz Soil Scientist	Johann Lanz	SACNASP: 400268/12
Cultural Heritage and Archaeological Theme Palaeontological	Agency for Cultural Resource Management (ACRM)	NID to be submitted by: Jonathan Kaplan	ASAPA CRM Membership No. 64 in Good Standing

2. LEGISLATION AND POLICY PERTAINING TO THE APPLICATION

2.1 The Basic Assessment Process

Due to the extent and the nature of the proposed cable infrastructure upgrade project, a number of "Listed Activities" in terms of the Environmental Impact Assessment (EIA) Regulations of 2014, as amended (Government Notice Regulations (GNR) 326 of 2017; GNR 517 of 2021), have been triggered. As "Listed Activities" in terms of Listing Notice 1, as amended and Listing Notice 3, as amended will be trigged as a result of the proposed activities, a Basic Assessment of the proposed activities is required. Please refer to Subregulation 3(2) of Listing Notice 1 and 3, as amended (GNR 327 and GNR 324 of 2017; GNR 517 of 2021):

"The investigation, assessment and communication of potential impact of activities must follow the procedure as prescribed in regulations 19 and 20 of the Environmental Impact Assessment Regulations[, 2014] published in terms of section 24(5) of the Act." Regulations 19 and 20 of the EIA Regulations, as amended, pertains to the requirements of a Basic Assessment Report. Therefore, an Environmental Impact Assessment in the form of a Basic Assessment is required for the proposed cable infrastructure upgrade project.

The Department of Forestry, Fisheries and Environment (DFFE) is the Competent Authority (CA) acting as the Decision-making authority for the proposed project. The Western Cape Department of Environmental Affairs and Development Planning (DEA&DP) is a Commenting Authority for the proposed project.

The BA process is informed by the EIA Regulations of 2014, as amended (GNR 326 of 2017; GNR 517 of 2021) and typically follows two main phases, namely, an Application Phase and a Basic Assessment (BA) Phase (including its associated Public Participation Process as illustrated in Figure 2-1 below.

As stated in Appendix 1 of the EIA Regulations of 2014, as amended, the objectives of a Basic Assessment Report include:

- Determining the policy and legislative context within which the proposed activity is located and how the activity complies with and responds to the policy and legislative context;

- Identifying the alternatives considered, including the activity, location, and technology alternatives;
- Provision of a description of the need and desirability of the proposed alternatives;
- Through the undertaking of an impact and risk assessment process, inclusive of cumulative impacts which focused on determining the geographical, physical, biological, social, economic, heritage, and cultural sensitivity of the sites and locations within sites and the risk of impact of the proposed activity and technology alternatives on these aspects to determine—
  (i) the nature, significance, consequence, extent, duration, and probability of the impacts occurring to; and
  (ii) the degree to which these impacts can be reversed, may cause irreplaceable loss of resources; and can be avoided, managed or mitigated;
- Through a ranking of the site sensitivities and possible impacts the activity and technology alternatives will impose on the sites and location identified through the life of the activity to—
  (i) identify and motivate a preferred site, activity and technology alternative;
  (ii) identify suitable measures to avoid, manage or mitigate identified impacts; and
  (iii) identify residual risks that need to be managed and monitored.

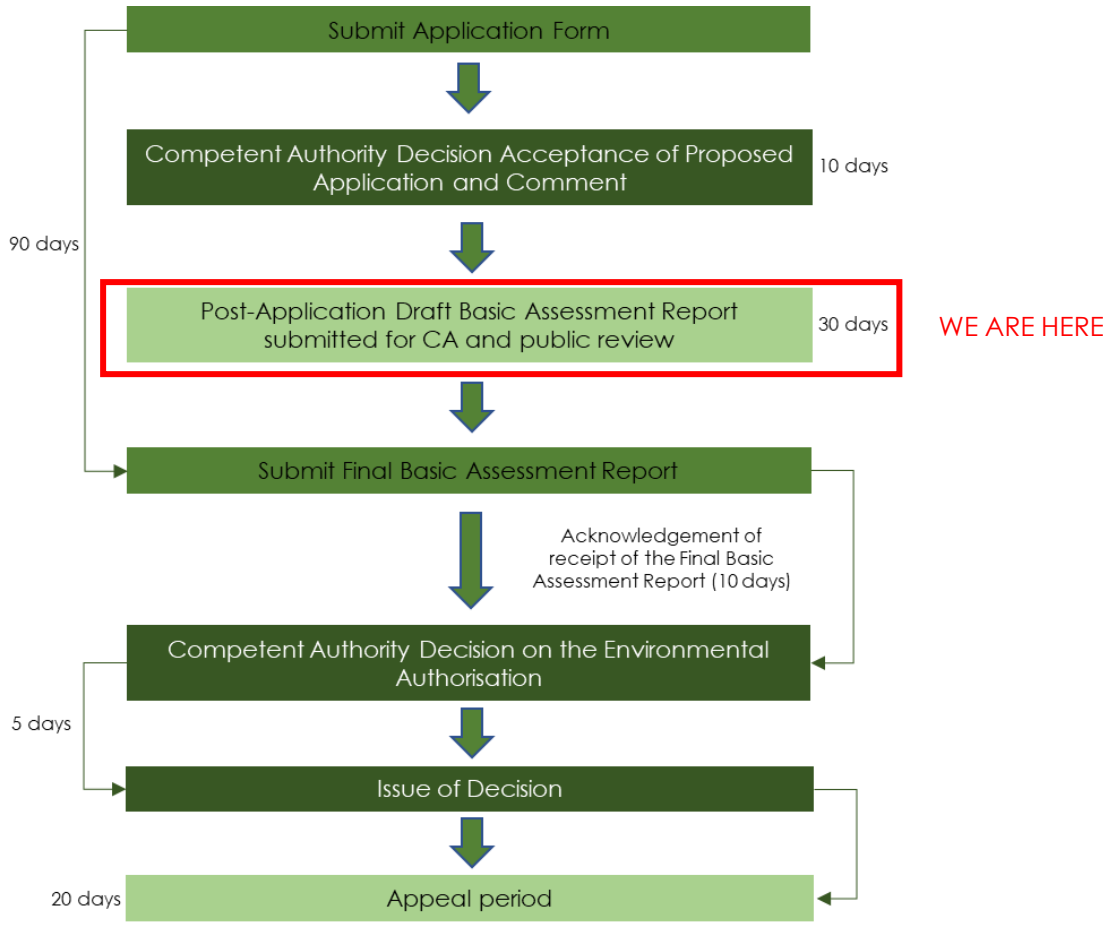

Figure 2-1. BA Process as stipulated in the EIA Regulations of 2014, as amended. The current phase of the project has been highlighted in red.

2.2 Summary of Regulations, Guidelines, Frameworks & Policies

The following Regulations (Acts) pertain to this development proposal and have been considered during the assessment process:

- The Constitution of South Africa (Act 108 of 1996);
- The National Environmental Management Act (NEMA), Act No 107 of 1998, as Amended
- The Environmental Impact Assessment Regulations, December 2014, as amended
- National Environmental Management Biodiversity Act (Act 10 of 2004);
- National Waste Act (Act No. 59 of 2008)
- National Water Act (Act No. 36 of 1998)
- National Forest Act (Act No. 84 of 1998)
- National Heritage Resources Act (Act No 25 of 1999)
- The National Veld and Forest Fire Act (Act No 101 of 1998)
- The National Health Act (No. 61 of 2003) and Health Act 63 of 1977
- Conservation of Agricultural Resources Act – CARA (Act 43 of 1983)
-
- Occupational Health and Safety Act (Act 85 of 1993)
- National Building Regulations and Building Standards Act (Act No 103 of 1977)
- Infrastructure Development Act (Act No.23 of 2014)
- Land Use Planning Ordinance (LUPO) Section 8 Scheme Regulations
- Land Use Planning Act (LUPA) (Act No. 3 of 2014)
- Spatial Planning and Land Use Management Act (Act No 16 of 2013)
- The Physical Planning Act (Act 125 of 1999)

The following guidelines pertain to this development proposal and have been considered during the assessment process:

- Guideline for Determining the Scope of Specialist Involvement in EIA Processes;
- Guideline for the Review of Specialist Input into the EIA Process;
- Guideline for Involving Biodiversity Specialists in EIA Processes;
- Guideline for Involving Heritage Specialists in EIA Processes;
- Guideline for Involving Visual and Aesthetic Specialists in EIA Processes;
- Guideline for Environmental Management Plans;
- Guideline on Public Participation;
- Guideline on Alternatives;
- Guideline on Need and Desirability;
- DEAT (2002) Scoping, Information Series 2 ((Integrated Environmental Management Information Series: Impact Significance); and
- DEA (2010), Guideline on Need and Desirability, Integrated Environmental Management Guideline Series 9.

National, Provincial & Municipal Development Planning Frameworks considered during the assessment process include:

- National Development Plan 2030 (2012);
- Western Cape Provincial Spatial Development Framework (PSDF) 2014;
- City of Cape Town Metropolitan Municipality Integrated Development Plan (2022-2027);
- Blaauwberg District Plan: Spatial Development Framework and Environmental Management Framework (2023);
- City of Cape Town Air Quality By-law (2016) & Air Quality Management Amendment By-law (2021);
- City of Cape Town Environmental Health By-Law (2003);
- City of Cape Town Coastal By-Law (2020);
- City of Cape Town Nature Reserve By-Law (2020);
- City of Cape Town Municipal Planning Amendment By-Law (2019);
- City of Cape Town Water By-Law (2010) and the Water Amendment By-Law (2018);
- City of Cape Town Stormwater Management By-Law (2005); and

- City of Cape Town Traffic By-law (2021).

The following legislation governs the Nuclear Energy framework of South Africa. This legislation has been promulgated in order to standardise the permitting requirements and safety requirements of the nuclear energy establishments:

- Nuclear Energy Policy for the Republic of South Africa, 2008
- Nuclear Energy Act, 1999 (Act 46 of 1999)
- National Radioactive Waste Disposal Institute Act, 2008 (Act No. 53 of 2008)
- National Nuclear Regulator (NNR) Act, 1999 (Act No. 47 of 1999)
- Regulations on Safety Standards and Regulatory Processes (GNR 388 of 2006) in terms of the National Nuclear Regulator (NNR) Act, 1999 (Act No. 47 of 1999)

The following specialist protocols held relevance to the proposed project:

- Site Sensitivity Verification Requirements where a specialist assessment is required, but no specific assessment protocol has been prescribed (March 2020).
- Protocol for the specialist assessment and minimum report content requirements for environmental impacts on terrestrial biodiversity (March 2020).
- Protocol for the specialist assessment and minimum report content requirements for environmental impacts on aquatic biodiversity (March 2020).
- Protocol for the specialist assessment and minimum report content requirements for environmental impacts on agricultural resources (March 2020).
- Protocol for the specialist assessment and minimum report content requirements for environmental impacts on terrestrial plant species (October 2020).
- Protocol for the specialist assessment and minimum report content requirements for environmental impacts on terrestrial animal species (October 2020).

2.3 Description of Key Legislation and Policies Listed Above and applicability to the proposed infrastructure upgrade project

2.3.1 The Constitution of South Africa (Act No. 108 of 1996)

The Constitution of South Africa is the supreme law of the country of South Africa. It provides the legal foundation for the existence of the republic, sets out the rights and duties of its citizens, and defines the structure of the government.

Section 24 of the Constitution states the following:

Everyone has the right –

- *To an environment that is not harmful to their health or well-being; and*
- *To have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that-*
    - *Prevent pollution and ecological degradation;*
    - *Promote conservation; and*
    - *Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.*

2.3.2 The National Environmental Management Act (Act No. 107 of 1998)

The National Environmental Management Act (NEMA; No. 107 of 1998, as amended) gives effect to the Constitution of the Republic of South Africa by providing a framework for co-operative environmental governance and environmental principles that enable and facilitate decision-making on matters affecting the environment. NEMA requires that an Environmental Authorisation (EA) be issued by a competent authority (CA) before an activity listed in terms of Environmental Impact Assessment (EIA) Regulations Listing Notices Government Notice (GN) 324, 325, 326 & 327 published on the 7th April 2017 (as amended by GNR 517 of 2021) may commence.

Due to the fact that this development proposal constitutes an activity listed in the EIA Regulations of 2014, as amended (2014), a Basic Assessment Report must be submitted to the Department of Forestry, Fisheries & Environment (DFFE) before they issue Eskom Holdings SOC Ltd with an Environmental Authorisation (either approval or rejection of the development proposal).

2.3.3 National Environmental Management: Biodiversity Act (Act. 10 of 2004)

This Act controls the management and conservation of South African biodiversity within the framework of NEMA. Amongst others, it deals with the protection of species and ecosystems that warrant national protection, as well as the sustainable use of indigenous biological resources. Sections 52 & 53 of this Act specifically make provision for the protection of critically endangered, endangered, vulnerable and protected ecosystems that have undergone, or have a risk of undergoing significant degradation of ecological structure, function or composition as a result of human intervention through threatening processes.

The following Notices pertains to the proposed project:

- ***Revised National List of Ecosystems that are Threatened and in Need of Protection (GN 2747 of 2022)***
  In November 2022, the DFFE released the revised National List of ecosystems that are threatened and in need of protection. These ecosystem categorisations served as an update to the 2011 NEMBA list of Threatened Ecosystems. As part of the revised ecosystem list, 120 species were identified, 55 of which are considered Critically Endangered (CR), 51 are Endangered (EN) and 14 ecosystems are Vulnerable (VU). The revised status was developed between 2016 and 2020 following issuing of the International Union for Conservation of Nature (IUCN) Red List of Ecosystems Framework.

  The proposed project is located within the Cape Flats Dune Strandveld (EN) ecosystem type. This was confirmed by the terrestrial biodiversity specialist. This ecosystem is considered endangered as the Cape Flats Dune Strandveld is narrowly distributed and has seen high rates of habitat loss during 1990 – 2018.

- **Alien and Invasive Species List (GN 1003 of 2020)**
  This Notice provides a list of 567 species considered as invasive species. These species have been categorized into four categories (Category 1a, 1b, 2 and 3), each bearing weight to different actions associated with them.

  - *Category 1a:* Species that must be combatted or eradicated and immediate actions towards management must be implemented. Authorised officials must be permitted to enter properties to monitor, assist with or implement the combating or eradication. Where an Invasive Species Management Programme has been developed, management (combat/eradication) must take place accordingly.

  - *Category 1b:* Species that must be controlled. Property owners and organs of state must control the listed invasive species within their properties. Where an Invasive Species Management Programme has been developed, management (combat/eradication) must take place accordingly. Any Category 2 listed species (where permits are applicable) which fall outside of containment and control, revert to Category 1b and must be controlled. Any Category 3 listed species which occur within a Protected Area or Riparian (wetland) revert to Category 1b and must be controlled.

- *Category 2:* Requires a permit issued by the Department of Forestry, Fisheries and the Environment (DFFE) to carry out a restricted activity.

- *Category 3:* Invasive species are subject to certain exemptions in terms of section 70 (1)(a) of the NEMBA Act, which applies to the listing of alien invasive species.

Although there were no alien invasive species confirmed on site, various species are likely to occur during the construction and rehabilitation phases of the proposed project, if not managed effectively. These include *Senecio burchellii* (indigenous, but invasive in disturbed areas), *Brassica tournefortii*, *Raphanus rapistrum* (wildemostert), *Eucalyptus* spp. (gums), *Lolium* sp. (ryegrass), *Avena* sp. (wild oats), *Bromus diandrus* (ripgut brome), *Lupinus* spp (lupin), *Vicia* spp. (vetch), *Pennisetum clandestinum* (kikuyu), *Echium plantagineum* (Patterson's curse) and *Conyza bonariensis*.

2.3.4 Conservation of Agricultural Resources Act (Act No. 43 of 1983)

The Conservation of Agricultural Resources Act (CARA; Act No. 43 of 1983) provides for the regulation of control over the utilisation of the natural agricultural resources in order to promote the conservation of soil, water and vegetation and provides for combating weeds and invader plant species. The Conservation of Agricultural Resources Act also defines different categories of alien plants.

The purpose of this act is to ensure the long term sustainable use and conservation of natural agricultural resources. The Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983) (CARA) has the objective to provide for the conservation of the natural agricultural resources of the Republic by the maintenance of the production potential of land, by the combating and prevention of erosion and weakening or destruction of the water sources, and by the protection of the vegetation and the combating of weeds and invader plants. It is the only legislation promoting the sustainable use of natural agricultural resources at farm level.

As per the findings of the Agricultural Compliance Statement undertaken by Johann Lanz, the proposed project will not lead to a loss of agricultural land and therefore there is no impact on the agricultural potential.

2.3.5 National Water Act (Act No. 36 of 1998)

The National Water Act, 1998 (NWA; Act No. 36 of 1998) provides the framework for the sustainable management of South Africa's water resources. It aims to protect, use, develop, conserve, manage and control water resources as a whole, promoting integrated water resource management that involves participation of all stakeholders. The NWA declares the national government to be the public trustee of the nation's water. The NWA is administered by the national Department of Water and Sanitation (DWS) via regional offices.

The following section 21 "water uses" require Water Use Authorisation (either in the form of a Water Use License (WULA) or a General Authorisation (GA) Water Use Registration:

c) impeding or diverting the flow of water in a watercourse;
i) altering the bed, banks, course or characteristics of a watercourse;

GN 509 of 2016 promulgated in terms of the NWA, provided the definition for the Regulatory Area around watercourses. Resultantly, it was determined that a 500m Regulatory area is applicable around all wetlands. The specialist identified that there is a wetland located within 500 m of the proposed project. Therefore, the proposed cable infrastructure upgrade project will trigger a General Authorisation in terms of Chapter 4 and Section 21(c) and (i) of the NWA (Act No. 36 of 1998) and this must be secured prior to the commencement of construction. A motivation for exemption will be submitted to the Department of Water and Sanitation regarding this matter as the proposed cable infrastructure upgrade project is located within

the KNPS and is buffered by various infrastructural units (such as buildings and roads). The impacts on these watercourses are expected to be negligible.

2.3.6 National Environmental Management: Protected Areas Act (Act No. 57 of 2003)

The National Environmental Management: Protected Areas Act (NEM:PAA; Act No. 57 of 2003) aims to provide aid towards the protection and conservation of ecologically viable areas representative of South Africa's biological diversity and its natural landscapes and seascapes. Section 50 of the NEMPAA reads as follows:

Section 50: Commercial and community activities in a national park, nature reserve and world heritage site.

(1) The management authority of a national park, nature reserve and world heritage site may, despite any regulation or by-law referred to in section 49, but subject to the management plan of the park, reserve or site-

(a) Carry out or allow-

(i) A commercial activity in the park, reserve or site; or….."

Furthermore, Section 50(5) states the following:
"No development, construction or farming may be permitted in a national park, nature reserve or world heritage site without the prior written approval of the management authority"

Additionally, the Protected Areas Act, 2003 (Act No. 57 of 2003), Section 86 (Regulations by the Minister), stipulates the following under Part 4, Regulation 19 (1) (a) and (b), and (2):

(1) No development contemplated in section 50(5) of the Act shall be implemented -

(a) In any area other than an area specifically designated for such development in a management plan; and

(b) Before a management authority has indicated in writing the nature and extent of the strategic or environmental impact assessment required for the development.

(2) No commercial activity or activity contemplated in section 50 of the Act, which requires an environmental impact assessment to be undertaken, either in terms of sub regulation (1)(b) or under any other law, may be implemented before a management authority has approved, with or without conditions, the environmental impact assessment before it is submitted to the relevant authority for approval".

The proposed project is located within the boundaries of the Koeberg Nature Reserve, as indicated in the South African Protected Areas Database (SAPAD). It should be noted that the boundaries of the KNPS have been excluded from the Koeberg Nature Reserve in all other strategic planning instruments. Appendix K1 of the Basic Assessment Report provides confirmation that the proposed project is in line with the Management Plan of the Koeberg Nature Reserve. It should be noted that the Koeberg Nature Reserve is managed by an independent (from the department assigned to the proposed project) department within Eskom.

2.3.7 National Environmental Management: Integrated Coastal Management Act (Act No. 24 of 2008)

The National Environmental Management: Integrated Coastal Management Act, 2008 (NEM:ICMA; Act No. 24 of 2008) aims to establish a system of integrated coastal and estuarine management in the Republic, including norms, standards and policies, in order to promote the conservation of the coastal environment, and maintain the natural attributes of coastal landscapes and seascapes, and to ensure that development and the use of natural resources within the coastal zone is socially and economically justifiable and ecologically sustainable.

According to Section 16 (1) of the NEM:ICMA the following areas form part of the coastal protection zone:

(a) land falling within an area declared in terms of the Environment Conservation Act, 1989 (Act No. 73 of 1989), as a sensitive coastal area within which activities identified in terms of section 21(1) of that Act may not be undertaken without an authorisation;

(b) any part of the littoral active zone that is not coastal public property;
(c) any coastal protection area, or part of such area, which is not coastal public property;
(d) any land unit situated wholly or partially within one kilometre of the highwater mark which, when this Act came into force—
(i) was zoned for agricultural or undetermined use; or
(ii) was not zoned and was not part of a lawfully established township, urban area or other human settlement;
(e) any land unit not referred to in paragraph (d) that is situated wholly or partially within 100 metres of the high-water mark;
(i) any coastal wetland, lake, lagoon or dam which is situated wholly or partially within a land unit referred to in paragraph (d)(i) or (e);
(g) any part of the seashore, which is not coastal public property, including all 5 privately owned land below the high-water mark;
(h) any admiralty reserve which is not coastal public property: or
(i) any land that would be inundated by a 1:50 year flood or storm event.

The proposed project extent infringes on the 100 m high water mark of the Atlantic Ocean (located toward the West of the Koeberg Nuclear Power Station). As the exact location of the infrastructure to be unearthed is not known, there is a possibility that the construction activities will exceed the threshold of this activity. Therefore, in terms of Section 16 (1) (e) of the NEM:ICMA, the proposed project does lie within the coastal protection zone (however is not included in the coastal public property, due the allocation of the Nature Reserve). The Department of Forestry, Fisheries and Environment: Oceans and Coasts was identified as an I&AP of the proposed project and has been included to provide comments on the proposed project.

2.3.8 National Environmental Management: Air Quality Act (Act No. 39 of 2004)

The National Environmental Management: Air Quality Act, 2004 (NEM:AQA; Act No. 39 of 2004) aims to protect the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development while promoting justifiable economic and social development. It also aims to provide for national norms and standards regulating air quality monitoring, management and control by all spheres of government and specific air quality measures.

During the construction phase of the proposed upgrades, due to the high wind speeds associated with the western coastline, it is anticipated that Section 32 of the NEM:AQA, relating to dust control, would hold relevance to the project. The Environmental Management Programme of the proposed project (Appendix I of the BAR) includes measures toward minimising the dust (and air quality) impact of the construction phase. The Environmental Management Programme includes measures toward Dust Management on site.

2.3.9 National Heritage Resources Act (Act No. 25 of 1999)

The protection and management of South Africa's heritage resources is controlled by the National Heritage Resources Act (Act No. 25 of 1999) (NHRA). Heritage Western Cape (HWC) is the enforcing authority in the Western Cape and is a Stakeholder for this environmental process. An application will be lodged to HWC through the appropriate modes of communication. Section 38(8) also makes provision for the assessment of heritage impacts as part of an EIA process.

The NHRA requires relevant heritage authorities to be notified regarding this proposed project, as the following activities are relevant:

a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
c) any development or other activity which will change the character of a site—

i. exceeding 5 000 m² in extent; or
ii. involving three or more existing erven or subdivisions thereof; or
iii. involving three or more erven or divisions thereof which have been consolidated within the past five years; or
iv. the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;

A Notice of Intent to Develop (NID) will be submitted to Heritage Western Cape (HWC) for further consideration.

2.3.10 Provincial Spatial Development Framework (2014)

The Western Cape Provincial Spatial Development Framework (PSDF; 2014, as amended 2021) identifies the goals and vision of the province and has been developed in line with the Western Cape Land Use Planning Act, 2014 (LUPA; Act No. 3 of 2014) and the Spatial Planning Land Use Management Act, 2013 (SPLUMA; Act No. 16 of 2013).

The PSDF, as amended (2014) aims to be in line with the draft National Spatial Development Framework (NSDF, 2019), which gives effect to Chapter 8 of the National Development Plan 2030 (NDP), which sees it's strategies as follow:

- Integrating the NSDF into the various management systems and evaluating performance of fiscal instruments in relation to spatial transformation outcomes;
- Alignment of development sector planning, thereby bringing to light the sector expenditure breakdown within the Provincial and National Spheres, whilst adding a spatial component to key documents;
- Consideration of the National Treasury (NT) for NSDF alignment prior to the allocation of budgets.
- National spatial accountability system entailing co-ordination of reporting by various spheres of government.

The National Development Plan (NDP) (NPC, 2013) contains a plan aimed at eliminating poverty and reducing inequality by 2030. Chapter 4, Economy infrastructure – The foundation of social and economic development, is relevant to, and supports the establishment of this project. Provinces must specifically coordinate the alignment of sector and municipal plans and demonstrate their consistency to the NSDF.

The PSDF of 2014, as amended (2021), makes reference to the Living Cape Framework (2019), which emphasis eight (8) objectives of spatial planning implementation. Of these, the following have reference to the proposed project:

iv) improving the alignment of provincial and municipal built environment investments and spatial planning instruments;
v) promoting brownfield/infill projects through a portfolio approach.

The spatial goals of the PSDF are in alignment with the OneCape 2040 vision. The proposed project is located within the Greater Cape Metro Regional Spatial Implementation Framework (GCM RSIF) and the proposed project aims to align with vision of the GCM RSIF through upgrading infrastructure forming part of a facility of National importance.

2.4 Approvals Required Pre-Construction and Planning Phase

The table below summarises the various environmental and planning approvals required from the various Authorities, before the construction of the development may take place.

Table 2-1. Summary Pre-Construction Environmental & Planning Approvals Required

Competent Authority	In terms of Legislation	Type of Approval / Licence / Required
National Department of Forestry, Fisheries & Environment (DFFE)	National Environmental Management Act (NEMA) and the 2014 EIA Regulations (April 2017)	**Environmental Authorisation** required in terms of the NEMA EIA Regulations (2014), as amended, for the activities listed in section 2.5 below.
Department of Water & Sanitation (DWS)	The National Water Act (NWA)	Comments will be sought from the Department of Water and Sanitation regarding the impacts of the proposed project in relation to the water resources within 500 m of the Area of Investigation.
Heritage Western Cape (HWC)	National Heritage Resources Act (NHRA) – Section 38	Confirmation/ROD from Heritage Western Cape will be required for the proposed project.

2.5 Listed Activities Triggered in the NEMA EIA Regulations 2014, as amended

The following listed activities in terms of the various listing notices will be triggered by the proposed cable infrastructure upgrades project:

- Listing Notice 1 of 2014, as amended (GNR 327 of 2017; GNR 517 of 2021): 17, 19A and 27.
- Listing Notice 2 of 2014, as amended (GNR 325 of 2017; GNR 517 of 2021): None
- Listing Notice 3 of 2014, as amended (GNR 324 of 2017; GNR 517 of 2021): 12

Table 2-2. Listed activities in terms of the Listing Notice 1, 2 and 3, as amended, triggered by the proposed infrastructure upgrades project.

LISTING NOTICE 1 (GN No. R327 of 7th April 2017): Basic Assessment		
Activity #	**Description of Activity as per the relevant Notices**	**Reason for trigger**
LISTING NOTICE 1 (GN No. R327): Basic Assessment		
17	The development (v) if no development setback exists, within a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever is greater; in respect of – (e) infrastructure or structures with a development footprint of 50 square metres or more.	The proposed project extent infringes on the 100 m high water mark of the Atlantic Ocean (located toward the West of the Koeberg Nuclear Power Station). As the exact location of the infrastructure to be unearthed is not known, there is a possibility that the construction activities will exceed the threshold of this activity.
19A	The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic metres from (ii) the littoral active zone, an estuary or a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever distance is greater.	The proposed project extent infringes on the 100 m high water mark of the Atlantic Ocean (located toward the West of the Koeberg Nuclear Power Station). As the exact location of the infrastructure to be unearthed is not known, there is a possibility that the proposed project will see to the movement of material.
27	The Clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation.	The proposed project will see to the clearance of an area of up to 6.1 ha of indigenous vegetation within the boundaries of the Koeberg Nuclear Power Station (this includes a section between the inner boundary fence and the outer boundary fence (approximately 1.9 ha) that has been cleared, and allowed to revegetate).
LISTING NOTICE 3 (GN No. R324): Basic Assessment		
12	The **clearance of an area of 300m² or more of indigenous vegetation** except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance plan. (i) In Western Cape: (i) Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment, 2004; (iii) Within the littoral active zone or 100m inland from the high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas; or	The proposed project will see to the clearance of an area of up to 6.1 ha of indigenous vegetation within the boundaries of the Koeberg Nuclear Power Station (this includes a section between the inner boundary fence and the outer boundary fence (approximately 1.9 ha) that has been cleared, and allowed to revegetate). The project is located within an area mapped as an endangered ecosystem (Cape Flats Strandveld) and is partially located within 100 metres inland from the high-water mark of the sea.

3. ASSUMPTIONS AND LIMITATIONS

The findings of this report are subject to the following limitations:

- All information received from the sources contributing to this project is assumed to be correct, unbiased and has been conducted by independent specialist.

- As the KNPS was constructed in the 1980s, the exact location of the existing infrastructure is not known. Therefore, the precise footprint of the works cannot be determined. Subsequently, the proposed project area as provided in this BAR provides the maximum extent of the area of investigation. By no means does this translate into the entirety of the area of investigation to be cleared on a once-off basis.

3.1 Terrestrial Biodiversity and Plant Species Specialist

- The site is within the 'active security zone' so no electronic devices such as personal GPS, cameras or cellphones were permitted. Therefore, a memory card from Bergwind was inserted into a small camera supplied by Koeberg and the photographs in this report were taken using this approved device.
- Not having a means (GPS or cell-phone) to record the survey track was a limitation for the investigation.

3.2 Animal Species Specialist

- Relatively optimal weather conditions during the surveying period along with the majority of the site being of a transformed nature (buildings, infrastructure, cleared areas or access roads) and with the very little remaining vegetation being of a degraded and open structure, were ideal for detecting a representative sample of the resident terrestrial faunal and avifaunal species diversity. Even so, not all species could be observed (especially cryptic species), and it is further possible that the surveying period did not correspond to the activity period or activity season of some species.

- Given regulations of the Koeberg Nuclear Power Station that no cellphones or cameras are allowed within the facility grounds, it was not possible to provide photographic evidence of either the species or the on-site habitats.

3.3 Aquatic Biodiversity Specialist

- As the site assessment in 2023 was comprehensive and the additional area was groundtruthed, another site assessment was not deemed necessary to update the Compliance Statement.
- During site assessment the site was investigated on foot, however, there was no access beyond the construction area, and therefore the aquatic habitat identified outside this area was delineated via desktop. Due to the distance of the location of the wetland, and infrastructure separating it from the site, in-field delineation was not deemed necessary as it will not be impacted.
- Photographs were provided by the client.
- Aquatic ecosystems vary both temporally and spatially. Once-off surveys such as this are therefore likely to miss certain ecological information due to seasonality, thus limiting accuracy and confidence. That said, the level of confidence in the findings is high.
- Infield soil and vegetation sampling was only undertaken within a specific focal area at the proposed site, while the remaining aquatic features were delineated at a desktop level.

- The wetland identified outside of the power station area was desktop mapped due to access and security issues, but this does not reduce the level of confidence in the results.

3.4 Agricultural Specialist

There are no specific assumptions, uncertainties or gaps in knowledge or data that affect the findings of this study.

3.5 Heritage Specialist

There were no limitations or constraints raised by the Archaeological Specialist. Archaeological visibility was considered to be very good.

4. DETAILED DESCRIPTION OF THE PROPOSED PROJECT

4.1 Site Location and Description of Property

4.1.1 Summary Table of Site and farm details

Please refer to the table below which is a summary of the site details associated with this proposed cable infrastructure upgrade.

Table 4-1. Project Location - Summary details.

Province	Western Cape
District Municipality	City of Cape Town Metropolitan Municipality (Blaauwberg District)
Local Municipality	City of Cape Town Metropolitan Municipality
Ward number(s)	Ward No 32
Nearest town(s)	Melkbosstrand
Portion name(s) and numbers	Farm Duynefontyn No. 1552

List of Properties, Ownership & Extent of each Property Associated with Proposed Affordable Housing Development:

Property	Size	Owner	Document	Zoning
Farm Duynefontyn No. 1552	1283,83 ha	ESKOM HOLDINGS SOC LTD	T9139/2015	Risk Industry Zone

Extent of Site (Development Footprint / Disturbed Area)	The area of the abovementioned property reserved for the Koeberg Nuclear Plant is approximately 127 ha. Where the proposed cable infrastructure upgrade project will have an extent of 11.5 ha (including the working corridors required).
SG Code	C01600000000155200000
Physical Address	Otto du Plessis Drive
Co-ordinates of the site:	33°40'19.89"S 18°25'54.46"E

4.1.2 Location of the Proposed Cable Infrastructure Upgrade Project

The proposed cable infrastructure upgrades project will be located on the Farm Duynefontyn No. 1552, City of Cape Town Metropolitan Municipality, Western Cape. The proposed cable infrastructure upgrade project is located within the allocated area of the Koeberg Nuclear Power Station and will have an extent of 11.5 ha. The zoning of the proposed infrastructure upgrades site is **Risk Industry** in terms of the City of Cape Town's Land Use Zoning Scheme.

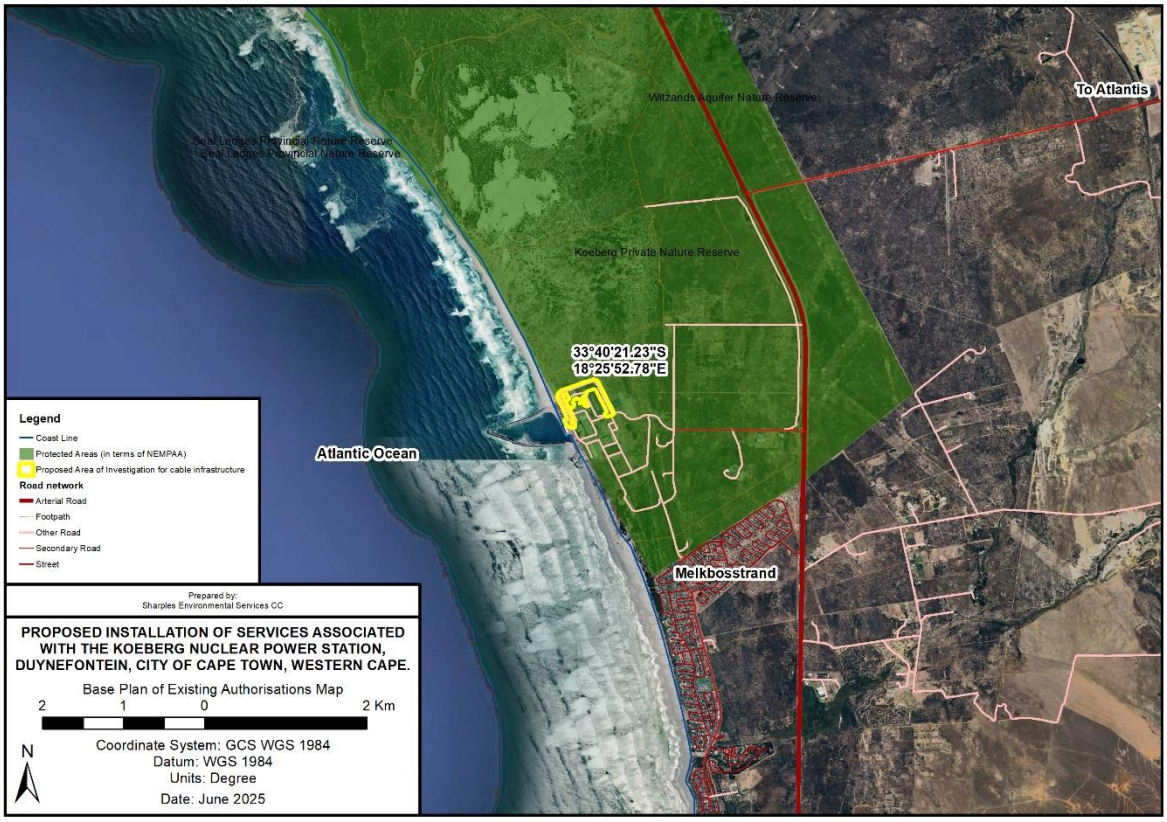

Figure 4-1. 1:50 000 Locality map of the proposed project.

As the exact locations of the proposed infrastructure to be upgraded is not known, the appropriate coordinates cannot be provided. Under the ambit of this application, it is assumed that the entire area located within the Area of Investigation/Study Area highlighted in the figure above, will be cleared as part of the investigative aspects of the proposed project. Therefore, please see the centre-point coordinates and five coordinates representative of the corner points of the investigation area (as visualised in Figure 4-2):

Table 4-2. Detailed project co-ordinate locations of the various infrastructures proposed.

Orientation	Latitude	Longitude
Corner points of the proposed Area of Investigation		
a	33°40'22.32"S	18°25'44.84"E
b	33°40'16.73"S	18°25'59.84"E
c	33°40'30.43"S	18°26'6.91"E
d	33°40'34.85"S	18°25'48.20"E
e	33°40'35.87"S	18°25'51.22"E
Area of Investigation		
Centre Point	33°40'21.23"S	18°25'52.78"E

Figure 4-2. Location of the area of investigation associated with the proposed cable infrastructure upgrades project.

For the purpose of evaluating the anticipated impacts of the proposed activities on the environment, the appointed EAP and the various specialists were requested to survey and evaluate Area of Investigation as indicated in red Figure 4-2, due to the KNPS being constructed in the 1980s, the exact location of the buried cable infrastructure is unknown.

4.2 Detailed Description of the Scope of the Proposed Activity

4.2.1 Description of the Proposed Cable Infrastructure Upgrade Project.

As indicated in the introductory paragraph of this BAR, construction on the Eskom Koeberg Nuclear Power Station began in the 1970s, with the commissioning of the plant components starting in 1984. As part of the construction of the plant, services were installed to allow connectivity between the various portions of the plant. The Applicant proposes to unearth and upgrade the services located in a specific portion of the plant (referred to as the Area of Investigation for the purpose of the compilation of this report), located North of the reactors, to the modern standard for construction and safety requirements.

As recording of infrastructure installation was not standardised in the 1980s, the unearthing of services will prove to be challenging as, although marked, the exact location of infrastructure is not known.

Therefore, as part of the modernisation and upgrading of the infrastructure, vegetation would have to be sporadically cleared within a predetermined area. The proposed installation is located in an area identified as Cape Flats Dune Strandveld, listed as an Endangered Ecosystem, in terms of the List of Ecosystems that are Threatened and in need of Protection, promulgated by the Department of Forestry, Fisheries and Environment (DFFE) and will potentially be partially located within 100 m of the highwater mark of the Atlantic Ocean.

The following infrastructure will be installed as part of the activities associated with the proposed cable infrastructure upgrades:

- Electrical cables with a transmission capacity of 48V, 22V and 380V; and
- Fibreoptic cables to service the security cameras of the plant.

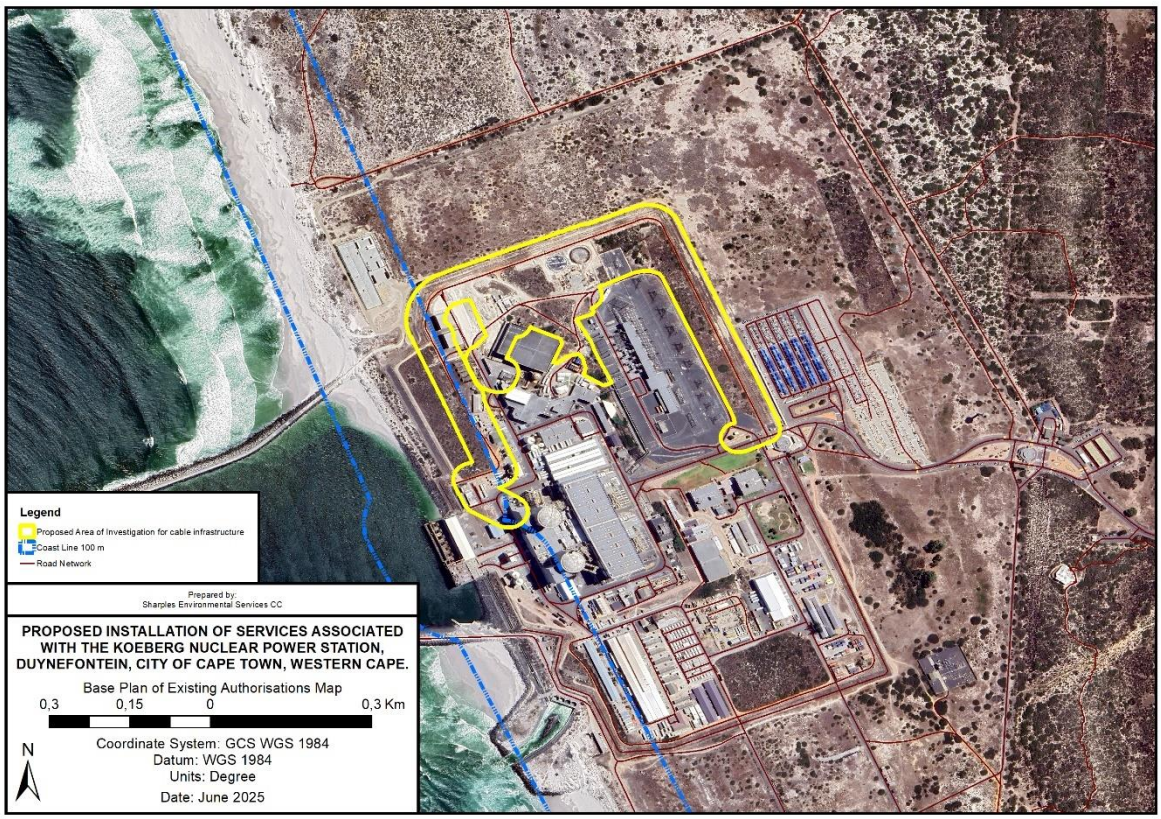

Figure 4-3. Proposed cable infrastructure project Area of Investigation upon.

5. DESCRIPTION OF THE AFFECTED ENVIRONMENT

5.1 Existing impacts within proximity to the proposed infrastructure upgrades site

The proposed cable infrastructure upgrade is located within the KNPS site. Therefore, several current impacts are evident. These impacts include the following (as contributed by Visser, 2025):

- The larger part of the site comprises buildings and infrastructure, or cleared areas and access roads where no natural habitat remains.
- Regular human foot traffic and vehicle traffic (noise and vibration) is evident along the access roads of the site, as well as within and along the buildings and infrastructure, and cleared areas.
- The entire site is surrounded by wire mesh fencing which precludes the movement of fauna, also rendering the site as highly isolated from the surrounding landscape.
- Only a small portion of the site harbours remnant vegetation which exists in a degraded state and is subject to daily disturbances.
- There are some signs of pollution on the site.
- The site exhibits a highly impaired faunal diversity and compromised ecosystem dynamics.
- Additional to the impacts raised by Visser (2025), the construction works on the approved reservoir and associated infrastructure (as evaluated in the specialist reports) have commenced as of the compilation of this BAR.

5.2 Biophysical Environment (Desktop evaluation)

5.2.1 Climate

5.2.1.1 General Description of Regional Climate

The Western Cape is climatologically diverse, with many distinct micro- and macroclimates created by the varied topography and the influence of the surrounding ocean currents. These are the warm Agulhas Current which flows southwards along South Africa's east coast, and the cold Benguela Current which is an upwelling current from the depths of the South Atlantic Ocean along South Africa's west coast. Most of the province is considered to have a semi-arid Mediterranean climate, characterised by dry warm summer months (October to April) and wetter cool winter months (from May to September).

Cape Town is described as a warm Mediterranean climate with mild, moderately wet winters and dry, warm summers. The region is windy throughout the year.

5.2.1.2 Temperature and Rainfall

According to the graph below (Climate-data.org, as accessed on 20 June 2025), the climate for the Melkbosstrand area sees that the area receives its highest rainfall between the months of June – August. The lowest average rainfall is experienced in January (avg. 12 mm) and the highest average rainfall occurrences are experienced in June (avg. 92 mm). The average rainfall amount per annum equates to approximately 503 mm.

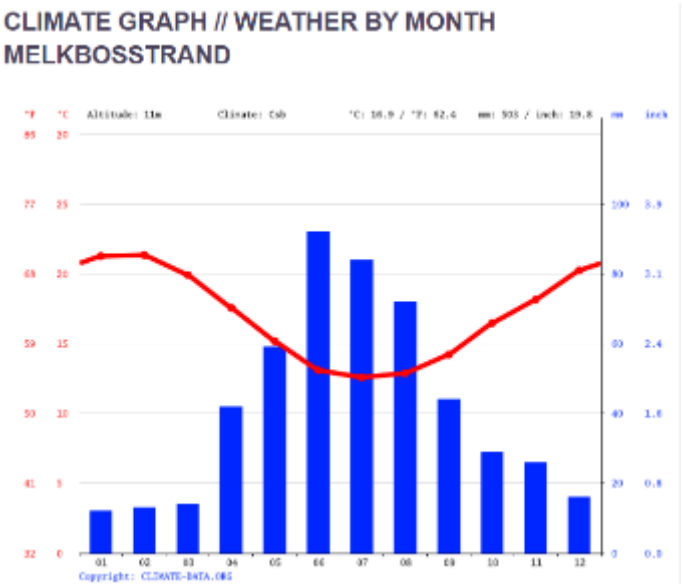

Figure 5-1. Climate Melkbosstrand (Climate-data.org, as accessed on 20 June 2025)

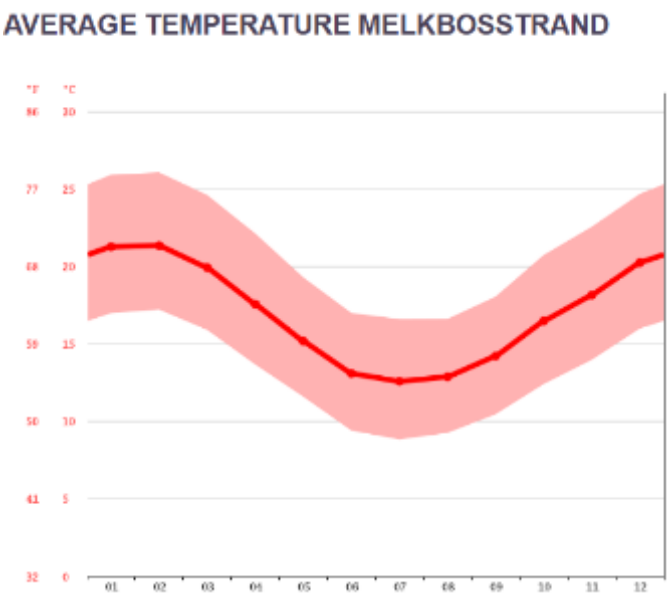

Figure 5-2. Weather chart of Melkbosstrand (Climate-data.org, as accessed on 20 June 2025)

5.2.2 Topography and geology

According to the descriptions provided by Mucina & Rutherford (2006), the Cape Flats Dune Strandveld are characterised by flat to slightly undulating (dune fields) landscapes, The proposed cable infrastructure upgrades site has undergone historical clearance events (whereby which the site was levelled out). Based on the slope information for the area, the area is low lying and slightly undulating (as is evident in Figure 5-3 below).

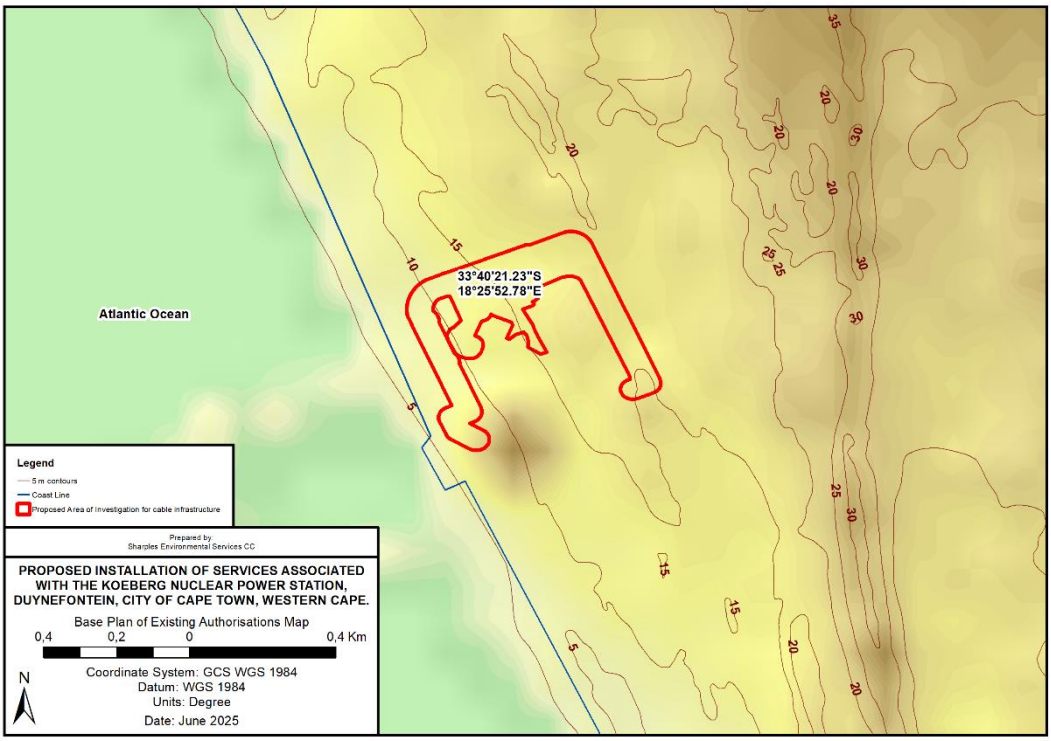

Figure 5-3. Topography of the proposed cable infrastructure upgrades site, indicating the contours and the slope variations of the site.

5.2.3 Freshwater Resources

According to the Environmental Screening Tool Report generated for the proposed activities, the site has been classified as having a low sensitivity in terms of the Aquatic Biodiversity Theme (Figure 5-4).

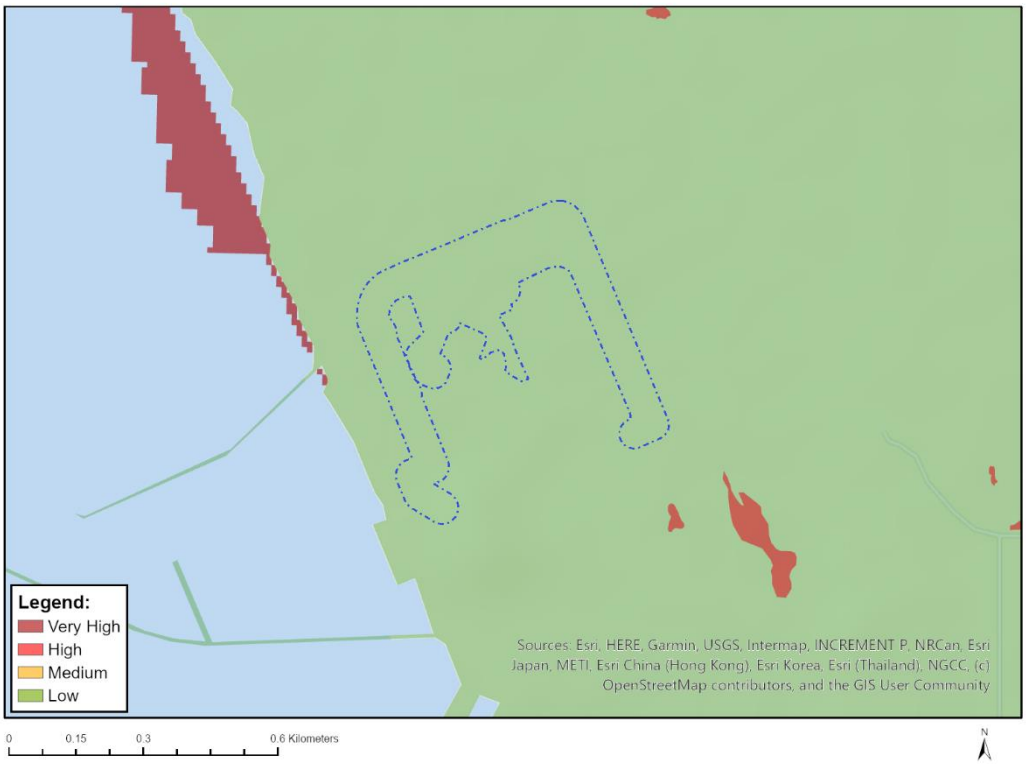

Figure 5-4. Environmental Screening Tool Results: Aquatic Biodiversity Theme.

The project is located within the No Impact Zone and Quaternary Catchment, G21B, as part of the Berg-Olifants Water Management Area (WMA), as promulgated in GN 1056 of September 2016), and carries the Berg, Diep and Steenbras Rivers.

According to the National Freshwater Ecosystem Priority Areas (NFEPA, 2011) delineation, there are no watercourses located within the 500 Regulatory area of the proposed cable infrastructure upgrades project. Furthermore, no NFEPA watercourses have been identified within proximity to the proposed activities. According to the National Biodiversity Assessment: Wetland Map (2018), there are two wetland units located within the 500 m Regulatory area. These wetlands have been identified as depression wetlands (Figure 5-5).

The Aquatic Biodiversity Network for wetlands and rivers (CCT Biodiversity Network) shows no watercourses within the proposed construction area but indicates three wetlands within the 500 m radius study area (Figure 5-6). The map shows an artificial wetland (stormwater pond) and a small depression located approximately 200 m south from the site, and a larger depression wetland more than 250 m south-west of the construction area.

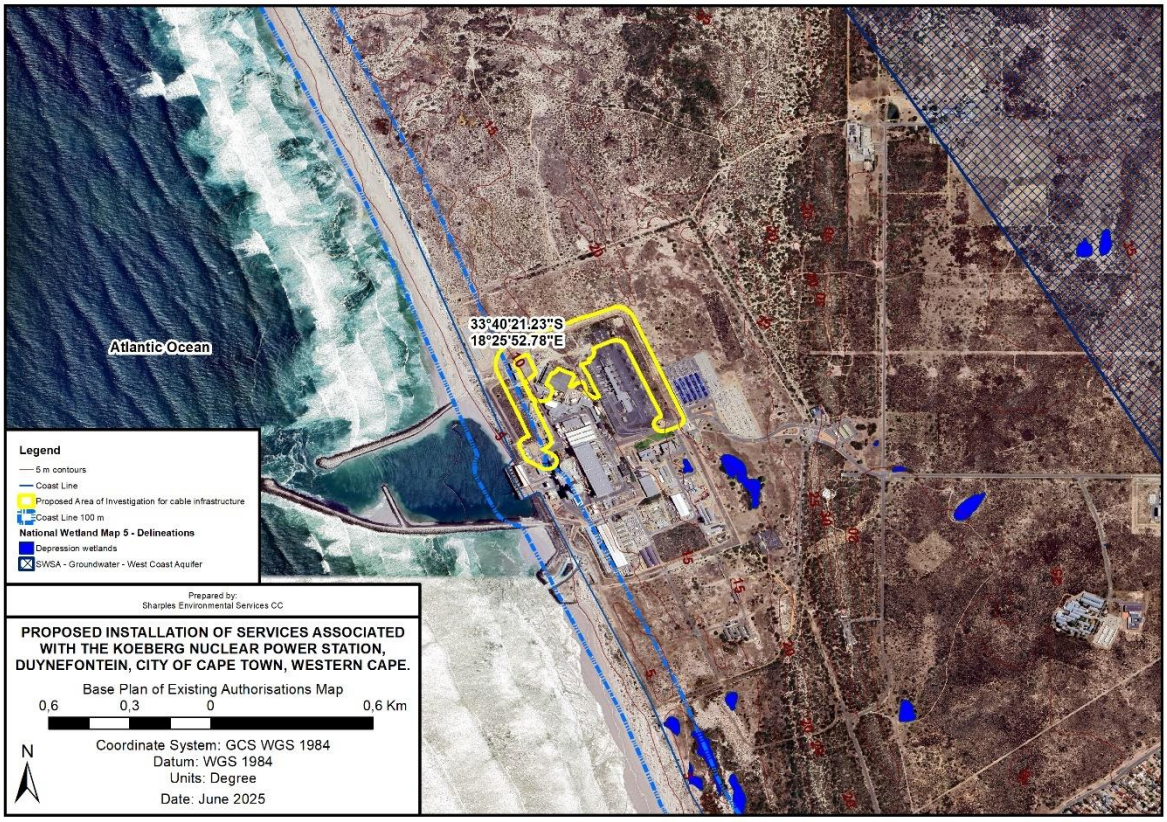

Figure 5-5. Watercourses within the 500 m Regulatory area of the proposed cable infrastructure Area of Investigation (NWM5, 2018).

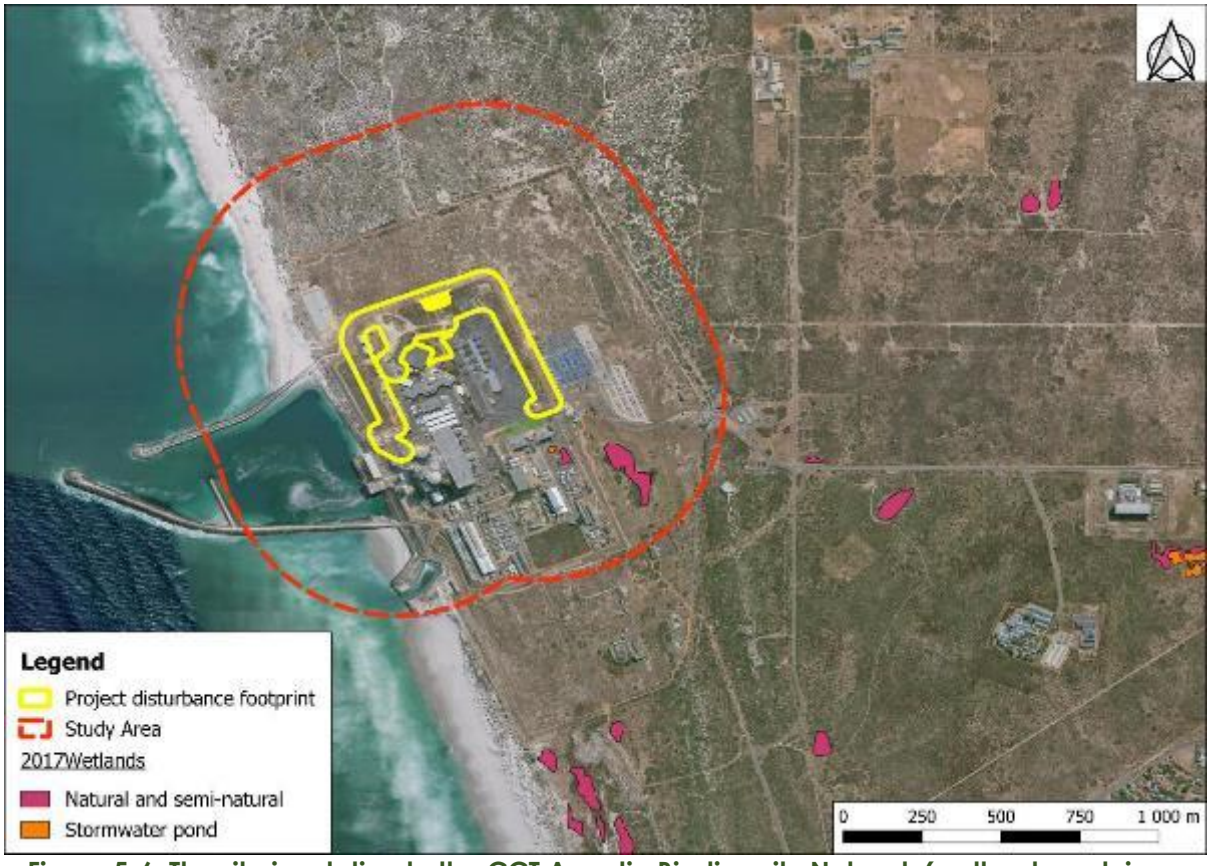

Figure 5-6. The site in relation to the CCT Aquatic Biodiversity Network (wetlands and rivers data) (Source: Fordham, 2025).

5.2.4 Soil, Geology & Agricultural Potential

According to Mucina & Rutherford (2006), the Cape Flats Dune Strandveld is characterized by tertiary to recent calcareous sand of marine origins which overlies the Tygerberg Formation. The dominant land type is Ha (approximately 50 %) (Haliburton soil type – acidic and composed of ground-up granite), with soil types Hb and Ga (Illuvial horizon B of sands) playing subordinate roles.

5.2.5 Vegetation

The Cape Flats Dune Strandveld is covered by tall, evergreen, hard-leaved shrubland with an abundance of grasses and annual herbs. The vegetation unit occurs in the Western Cape Province, specifically within the City of Cape Town Metropolitan with the northern reaches extending north as far as the Atlantis Dune plume, the Cape Flats to Bellville, between Gordon's Bay and Muizenberg. The vegetation community prefers altitudes between 0 and 80 m, but also reaches 200 m in some places (Mucina & Rutherford, 2006).

The following species are typical of this vegetation community:

Table 5-1. Typical species representative of the Cape Flats Dune Strandveld (Mucina & Rutherford, 2006).

Tall Shrubs	**Succulent Shrubs:**	**Herbs (continued)**
Euclea racemose subsp. racemosa	*Tetragonia fruticosa*	*Lyperia tristis*
Metalasia muricata	*Cotyledon orbiculate var. spuria*	*Nemesia versicolor*
Rhus glauca	*Euphorbia mauritanica*	*Senecio elegans*
Morella cordifolia	*Jordaaniella dubia*	*Ursinia anthemoides subsp. anthemoides*
Nylandtia spinosa	*Pelargonium fulgidum*	*Zaluzianskya villosa*
Olea exasperata	*Ruschia macowanii*	**Geophytic Herbs**
Rhys crenata	*Tylecodon grandifloras*	*Babiana tubulosa var tubiflora*
Rhys laevigata	*Zygophyllum flexuosum*	*Brunsvigia orientalis*
Rhys lucida	**Woody climbers**	*Chasmanthe aethiopica*
Low Shrubs	*Cissampelos capensis*	*Geissorhiza exscapa*
Chrysanthemoides monilifera	*Solanum africanum*	*Trachyandra ciliate*
Cullumia squarrosa	**Semi-parasitic shrubs**	**Succulent Herbs**
Pterocelastrus tricuspidatus	*Osyris compressa*	*Carpobrotus acinaciformis*
Salvia africanalutea	*Thesidium fragile*	*Carpobrous edulis*
Cassine peragua subsp. barbara	**Herbs**	*Conicosia pugioniformis subsp. Pugioniformis*
Chironia baccifera	*Helicrysum crispum*	*Senecio littoreus*
Eriocephalus africanus var africanus	*Adenogramma glomerata*	**Graminoids**
Eriocephalus racemosus	*Arctotheca calendula*	*Ehrhata villosa var. villosa*
Helichrysum niveum	*Cineraria geidolia*	*Ischyrolepis Eleocharis*
Helichrysum teretifolium	*Galium tomentosum*	*Chaetobromus involucratus subsp. dregeanus*
Lessertia fruticosa	*Helichrysum litorale*	*Chaetobromus involucratus subsp. Involucratus*
Otholobium bracteolatum	*Knowltonia capensis*	*Ehrharta calycina*
Passerina paleacea	**Herbaceous climbers:**	*Ficinia lateralis*
Phylica ericoides	*Astephanus triflorus*	*Ficinia ramosissima*
Putterlickia pyracantha	*Cynanchum africanum*	*Ficinia secunda*
Robsonodendron maritimum	*Cynanchum obtusifolium*	*Thamnochortus erectus*
Semi-parasitic Epiphytic shrub	*Didymodoxa capensis*	*Willdenowia teres*
Viscum capense	*Kedrostis nana*	

The Cape Flats Dune Strandveld has been listed as Endangered (EN) according to the Revised List of Ecosystems that are Threatened and in Need of Protection (DFFE, 2022) as the vegetation community is narrowly distributed with high rates of habitat loss in the past and due to evidence of ongoing biotic disruption from invasive species.

According to the Environmental Screening Tool Report generated for the proposed activities, the site has been classified as being medium sensitive in terms of the Plant Species Theme (Figure 5-8) and very highly sensitive in terms of the Terrestrial Biodiversity Theme (Figure 5-7).

Figure 5-7. Environmental Screening Tool Results: Terrestrial Biodiversity Theme.

Sensitivity	Feature(s)
Very High	Koeberg Private Nature Reserve
Very High	EN_Cape Flats Dune Strandveld

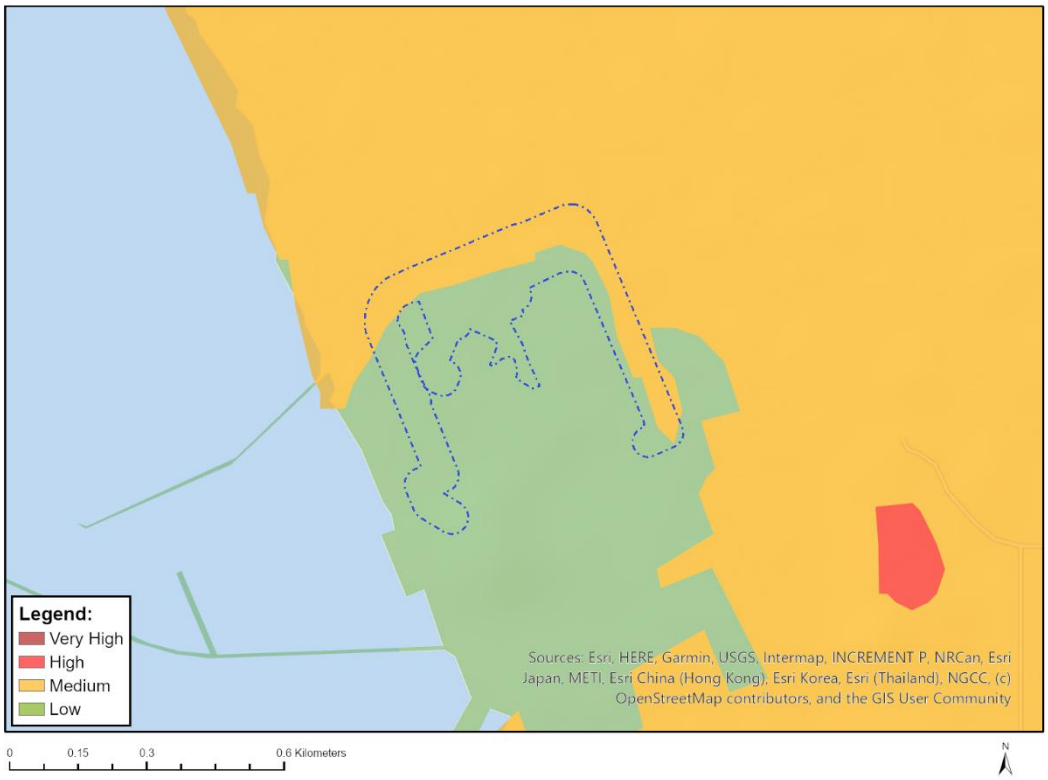

Figure 5-8. Environmental Screening Tool Results: Plant Species Theme.

Table 5-2. Plant Species of Conservation Concern highlighted by the Environmental Screening Tool (October 2023).

Sensitivity	Species	IUCN status
Medium	*Lampranthus stenus*	EN
Medium	*Lampranthus tenuifolius*	EN
Medium	*Cleretum clavatum*	EN
Medium	*Ruschia geminiflora*	VU
Medium	*Lessertia argentea*	EN
Medium	*Psoralea glaucina*	CR
Medium	*Indigofera platypoda*	EN
Medium	*Indigofera psoraloides*	EN
Medium	*Lebeckia plukenetiana*	EN
Medium	*Podalyria sericea*	VU
Medium	*Thesium litoreum*	CR
Medium	*Leucospermum hypophyllocarpodendron subsp. canaliculatum*	VU
Medium	*Leucospermum hypophyllocarpodendron subsp. Hypophyllocarpodendron*	VU
Medium	*Leucospermum tomentosum*	VU
Medium	*Manulea corymbose*	VU
Medium	*Sensitive Species 878*	EN
Medium	*Sensitive Species 816*	CR
Medium	*Hermannia procumbens subsp. Procumbens*	CR
Medium	*Galenia crystallina var. maritima*	VU
Medium	*Isolepis venustula*	VU
Medium	*Cannomois arenicola*	EN
Medium	*Elegia prominens*	VU
Medium	*Cynanchum zeyheri*	VU
Medium	*Sensitive Species 985*	EN
Medium	*Gnidia spicata*	VU
Medium	*Metalasia capitata*	VU
Medium	*Steirodiscus tagetes*	VU
Medium	*Cotula duckittiae*	VU
Medium	*Cotula eckloniana*	VU
Medium	*Oncosiphon africanum*	VU
Medium	*Agathosma corymbose*	EN
Medium	*Agathosma glabrata*	LC
Medium	*Cliffortia ericifolia*	EN
Medium	*Cliffortia hirta*	EN
Medium	*Cliffortia longifolia*	VU
Medium	*Limonium purpuratum*	EN
Medium	*Muraltia macropetala*	VU
Medium	*Muraltia mitior*	EN
Medium	*Sensitive Species 158*	EN
Medium	*Phylica plumosa var. squarrosa*	EN
Medium	*Argyrolobium velutinum*	VU
Medium	*Xiphotheca reflexa*	EN
Medium	*Sensitive Species 599*	VU
Medium	*Sensitive Species 654*	VU
Medium	*Lachnaea grandiflora*	VU
Medium	*Cotula pusilla*	VU
Medium	*Caesia sabulosa*	VU

5.2.6 ***Fauna***

According to the Environmental Screening Tool Report generated for the proposed activities, the site has been classified as being highly sensitive in terms of the Animal Species Theme (Figure 5-9).

The following Species of Conservation Concern have a likelihood of occurring within the surveyance area:

Table 5-3. Animal Species of Conservation Concern highlighted by the Environmental Screening Tool (October 2023).

Sensitivity	Species	Common name	IUCN status
High	*Circus maurus*	Black Harrier	Endangered
High	*Afrotis afra*	Southern Black Korhaan	Vulnerable
High	*Circus ranivorus*	African Marsh-harrier	Least Concern

Medium	*Pachysoma aesculapius*	West Coast Flightless Dungbeetle	Vulnerable
Medium	*Bullacris obliqua*	Bladder grasshopper	Vulnerable

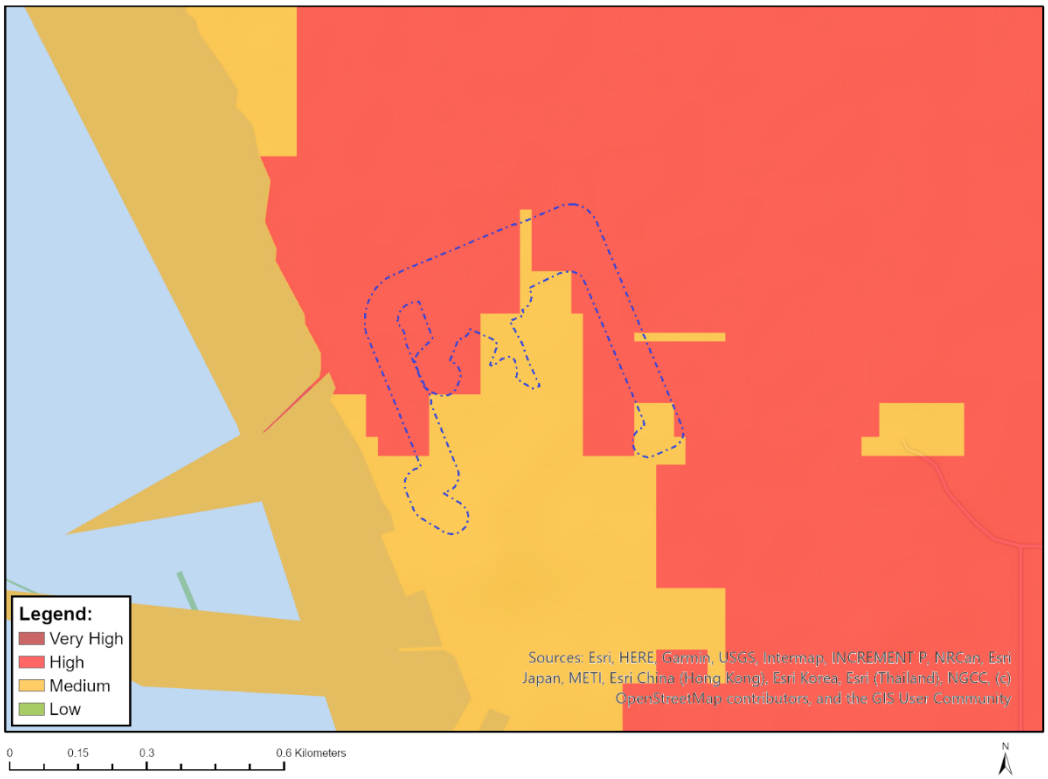

Figure 5-9. Environmental Screening Tool Results: Animal Species Theme.

5.3 Socio-Economic Environment

The proposed project is located within the Western Cape Province which is bordered by the Northern and Eastern Cape. It covers an area of 129 462 km^2 and has a population of 6 279 730. It is the fourth largest province in SA and also ranks fourth in population size. The capital is Cape Town. Other major cities and towns include George, Knysna, Paarl, Swellendam, Oudtshoorn, Stellenbosch, Worcester, Mossel Bay and Strand.

The Western Cape is rich in agriculture and fisheries. Fishing is the most important industry along the west coast and sheep farming is the mainstay of the Karoo. The province has a well-established industrial and business base, and the lowest unemployment rate in the country. Sectors such as finance, real estate, ICT, retail and tourism have shown substantial growth, and are the main contributors to the regional economy. Many of South Africa's major insurance companies and banks are based in the Western Cape. The majority of the country's petroleum companies and the largest segment of the printing and publishing industry are located in Cape Town.

The proposed project is located within the Blaauwberg Region of the City of Cape Town Metropolitan Municipality (CCT), Western Cape. CCT is one of five (5) Districts and is considered a Category A municipality. CCT is located adjacent to the Overberg District Municipality to the South-East, the Cape Winelands District Municipality to the North-East, and the West Coast Municipality to the North. In terms of its footprint of CCT is 2 441 km^2 and is the oldest city in South Africa (SA).

The CCT is South Africa's second-largest economic centre and holds the second largest population in the country, only surpassed by Johannesburg. It is the provincial capital of the Western Cape and the legislative Capital of SA.

The main economic sectors of the CCT includes finance finance, real estate & business services; community, personal & social services; and trade & hospitality, collectively seeing to a total of 72,3% contribution to the total Gross Value Added for the Municipality. The minor economic sectors include construction, electricity, agriculture and mining which collectively contributes 6% of the Municipality's revenue (IDP 2023 to 27; 2024/25 Review).

From a population standpoint, the municipality has a population size of 4 772 846 individuals, with 22.4% of the population being under 15 years of age, 70.9% of the population are between 15 and 64 years of age and 6.7% are over the age of 65 in 2022. The CCT has a population growth rate of 2.37% per annum. According to the statistics, following the 2016 census, it was determined that 2.0% of the individuals aged 20+ years have no schooling, 34.0 % have matric and 14.4% have a high education degree. The latter stood at 20.0% following the 2022 census undertaking (https://municipalities.co.za/ as accessed on 23 June 2025).

According to the Blaauwberg District Plan (2023) which encompasses the Integrate Spatial Development Framework (ISDF) and the Environmental Management Framework (EMF), the Blaauwberg District (which forms part of the CCT), is expected to have a pollution of 1 752 740 between 2020 and 2040. The population is considered an aging population as the % of the population aged 65+ is expected to almost double in this time period. There will be approximately 630 264 dwellings in this area (formal, informal/backyard dwellings).

As part of the District Plan (2023), responses to the objectives of the CCT IDPs have been identified. The following objectives hold relevance to the project:

Table 5-4. Alignment of the project with the objectives of the Blaauwberg District Plan compiled in terms of the CCT IDP (2023).

Objective Number	Priorities	Alignment of the project with these objectives
1	Increase job and investment in the Cape Town economy	During the construction phase of the proposed cable infrastructure upgrades, the project will see to the provision of a number of construction related employment opportunities. These opportunities will be procured through the Eskom procurement programme. During the post-construction / rehabilitation phase, the proposed activities will see to the added viability and reliability of the KNPS.
9	Healthy and sustainable environment	The policy guidelines relate to environmental management and maintaining sufficient access, quality and quantities of green space contributing to health and well-being of the populus. The project will be located within the existing area earmarked for the KNPS, albeit located within the Koeberg Nature Reserve. Furthermore, the proposed cable infrastructure upgrade project is aimed toward managing the current operational capacity of the KNPS, ensuring the reliability of the KNPS as an electricity producer impacting electricity supply on a regional and national scale.
14	A resilient city	

As indicated in the consolidated MSDF (2023) spatial concept, the KNPS Emergency Planning Zones have been demarcated as a 5 km (no-development zone) and a 16 km (restricted-development) protection zone. The 5 km buffer area will include the northern reaches of Melkbosstrand, whereas the 16 km buffer area extends to include Atlantis and the northern Blouberg (Parklands) areas. The project will be in line with the MSDF, as the proposed activities will align with the land use management objectives of the Municipality as the project is aimed toward ensuring the effective implementation of the Koeberg Nuclear Emergency Plan.

6. ALTERNATIVES

This section of the Basic Assessment Report (BAR) aims to provide an overview of the alternatives considered for the proposed cable infrastructure project, and where no alternatives have been considered, to provide a reasoning for not providing such alternatives. The following documents have been used in order to identify and further evaluate the feasibility of the various potential alternatives:

- EIA Guideline and Information Document Series: Guideline on Alternatives (DEA&DP, 2013) - Guideline considered when identifying and evaluating possible alternatives for the proposed development; and
- Integrated Environmental Management Information Series 11: Criteria for determining alternatives (DEA, 2004).

"Alternatives", in relation to a proposed activity, denotes different means of meeting the general purposes and requirements of the activity, which may include alternatives to –

a) the property on which, or location where, it is proposed to undertake the activity;
b) the type of activity to be undertaken;
c) the design or layout of the activity;
d) the technology to be used in the activity;
e) the operational aspects of the activity; and
f) the option of not implementing the activity.

6.1 Determination of the Preferred Proposed Project Alternative

Eskom Holdings SOC Ltd proposes to upgrade electrical infrastructure within a predetermined area located within the boundaries of the Koeberg Nuclear Power Station (KNPS) on the Farm Duynefontyn No. 1552, Melkbosstrand, City of Cape Town Metropolitan Municipality, Western Cape Province.

As discussed in Section 1.1 of this BAR, construction of the Eskom Koeberg Nuclear Power Station began in 1976, with the commissioning of the plant components starting in 1984. As part of the construction of the plant, services were installed in order to allow connectivity between the various portions of the plant. Eskom Holdings SOC Ltd. proposes to unearth and upgrade the services located in a specific portion of the plant (North of the reactors) to the modern standard for construction and safety requirements.

As recording of infrastructure installation was not standardised in the 1980s, the unearthing of services will prove to be challenging as, although marked, the exact location of infrastructure is not known. Therefore, as part of the modernisation and upgrading of the infrastructure, vegetation would have to be sporadically cleared within a predetermined area. The proposed installation is located in an area identified as Cape Flats Dune Strandveld, listed as an Endangered Ecosystem, in terms of the List of Ecosystems that are Threatened and in need of Protection, promulgated by the Department of Forestry, Fisheries and Environment (DFFE) and will potentially be partially located within 100 m of the highwater mark of the Atlantic Ocean (Figure 1-1).

Due to the anticipated extent of the clearance and the threatened status of the ecosystem type, together with the fact that the area has not been lawfully cleared in the past 10 years, a Basic Assessment Process in terms of the EIA Regulations of 2014, as amended (GNR 326 of 2017, as amended) is required for the unearthing and reinstallation process of the infrastructure.

Therefore, as part of this Application for EA the Area of Investigation provided in Figure 6-1 is considered the preferred proposed site location and layout alternative.

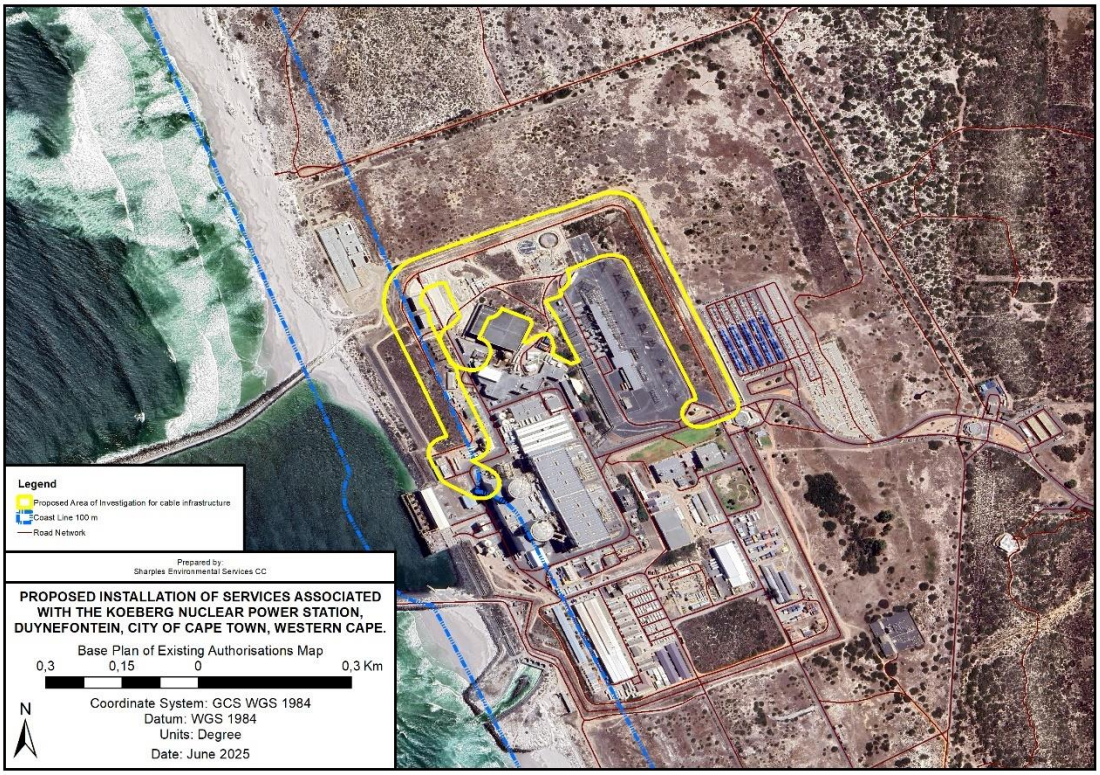

Figure 6-1. Preferred Proposed location of the cable infrastructure investigation area located on the Farm Duynefontyn 1552.

6.2 Concluding Statement Regarding Alternatives

6.2.1 *Other Alternatives considered*

Due to the need for the proposed project in the location, which is aimed toward upgrading the existing cable infrastructure and therefore ensuring the electricity network is secured within the KNPS, no other site, property, technology, locality alternatives were considered for the project.

6.2.2 *No-Go Alternative*

The No-Go Alternative of the proposed development sees the Status Quo of the site to remain the same, therefore the cable infrastructure is not unearthed and upgraded, compromising the longevity of the KNPS. On a grander scale, due to the socio-economic contributions of the KNPS to the National Electricity Grid, failure to upgrade the infrastructure will hinder the reliability of the KNPS and inherently compromise the Country's electricity supply

For the purpose of evaluating the anticipated impact of the proposed development on the environment, the preferred proposed development alternative has been evaluated against the No-Go Alternative only.

Please see Section 10 for the impact assessment undertaken for the proposed development.

7. PROJECT NEED AND DESIRABILITY

The Need and Desirability Guideline of 2017 (DEA) explains that the needs and desirability is determined by considering the broader community's needs and interests as reflected in a credible IDP, SDF and EMF for the area, and as determined by the EIA. It is further also highlighted that society in general should improve the efficiency and responsibility with which we use resources, and improve on the level of integration of social, economic, ecological and

governance systems. The need and desirability therefore need to illustrate how a development integrates the socio-economic, ecological and political aspect in a beneficial manner.

Need and Desirability relates to the nature, scale and location of the proposal where the need can be translated to time (in other words would the time of this proposal be considered the right time to commence with said proposal), and the desirability can be translated to the place (is the proposal located in the correct place for the proposed activities) (DEA&DP, 2013; DEA, 2017). Through these considerations, it can be determined whether a proposal would be considered to be in alignment with the sustainability principles as well as the National Development Plan 2030 (NDP 2030)'s principles toward the transitioning to an environmentally sustainable, low-carbon economy. This BAR strives to answer the questions on Need and Desirability as posed in the relevant guidelines for the purpose of due consideration of both the biophysical and the socio-economic environments.

Toward "securing ecological sustainable development and use of natural resources"
Under the Revised National List of Ecosystems that are threatened and in need of protection promulgated in November 2022 under the National Environmental Management Act of 2004 (Act No. 10 of 2004), the site is located within an Endangered Ecosystem (Cape Flats Dune Strandveld). The proposed development is located within the Koeberg Nature Reserve according to demarcations in accordance with the National Environmental Management: Protected Areas Act (NEMPAA; Act No. 57 of 2003). According the to the CCT Biodiversity Network, the KNPS has been excluded from the mapping, however, according to the appointed specialists, the KNPS is surrounded by a Conservation area.

The following specialists have been appointed to inform the sensitivity of the receiving environment:

- An Aquatic Biodiversity Specialist;
- A Heritage and Cultural Specialist;
- A Palaeontological Impact Specialist;
- A Terrestrial Biodiversity and Plant Species Specialist;
- An Animal Species Specialist; and
- An Agricultural Specialist.

These specialists identified and assessed the direct and indirect impacts that will be seen on the natural resources within the area. Along with the determination of their impacts, they provided a series of mitigation measures, where required, so as to limit the impact of the construction and operational activities on the receiving environment. Based on the findings of the various specialist assessments, it was determined that the cumulative impact of the proposed development on the receiving environment would be low.

In order to follow the risk-averse approach, the appointed specialists identified the limitations and assumptions made for the purpose of completing their assessments. These limitations and assumptions have been described in the Section 3 the BAR.

Toward "promoting justifiable economic and social development"
The proposed cable infrastructure upgrades project is considered a necessity toward ensuring the longevity of the KNPS. Due to the age of the infrastructure (with the infrastructure being installed in the 1980s), the integrity of the infrastructure has been compromised.

The National Development Plan 2030 (NDP) contains a plan aimed at eliminating poverty and reducing inequality by 2030. Chapter 4, Economy infrastructure – The foundation of social and economic development, is relevant to, and supports the establishment of the proposed renewable energy development. Provinces must specifically coordinate the alignment of sector and municipal plans and demonstrate their consistency to the NSDF. The KNPS forms a crucial part of the National Integrated Resource Plan (IRP2019), which gives effect to the NDP 2030, and the strategies aimed toward providing the country with reliable service delivery.

As indicated in Section 2 and 5.3, the proposed development is aligned with objectives and strategies of the core strategic planning documents and includes the NDP2030, IRP2019, the WC SDF, the CCT IDP, and the Blaauwberg District Plan: SDF and EMF.

In order to obtain further insight on the concerns from the public (regarding the proposed activities), a thorough Public Participation Process (PPP) will be undertaken. This PPP will be in line with Regulation 41 of the EIA Regulations of 2014, as amended. The PPP to be conducted for the proposed development has been detailed in Section 8 of this report. Comments received will be incorporated into this report prior to submission of the Final BAR.

7.1 Strategic Development Goal Considerations for the project

The proposed cable infrastructure upgrade project aims to achieve a number of the sustainability objectives in terms of the Sustainable Development Goals (SDG) as adopted in 2015 as part of the Envision2030 initiative. The goals detailed in the table below are relevant to the proposed development and will be addressed to some extent, while others are not relevant.

Table 7-1. Sustainable Development Goals that hold relevance to the proposed project.

SDGs	Description	Relevance
SDG3	Good Health and well-being	During the post-construction phase of the proposed cable infrastructure upgrade project, the benefits of the project will be seen through the continued reliable deliverance of an essential service (Electricity). Thereby adding to the well-being of the public sector as basic needs are continued to be met.
SDG9	Industry, Innovation and Infrastructure	The proposed project is essential to the current operational activities associated with the KNPS. The project will see to the upgrade of essential cable infrastructure associated with the KNPS, allowing for the connectivity between the various portions of the KNPS. Through the furtherance of the operational phase of the KNPS, the electricity supply to the National Grid is not further compromised. Especially given the already fragile state of the country's electricity supply.
SDG11	Sustainable Cities and Communities	

8. PUBLIC PARTICIPATION PROCESS

8.1 Public Participation: Opportunity to Register and Review of the Draft Basic Assessment Report

According to the Regulation 19(1) of the EIA Regulations of 2014, as amended, promulgated in terms of the National Environmental Management Act (NEMA), once an application is submitted to obtain an Environmental Authorisation in terms of the NEMA EIA Regulations, the Basic Assessment Report must be subjected to at least 30 days public participation. During this period potential or registered Interested and / or Affected Parties (interested in the project or affected by the thereby) are provided with an opportunity to lay comment on the proposal. These comments are taken into account, responded to, and where required changes are incorporated into the report as part of the submission of the Final Basic Assessment Report submitted to the Competent Authority for Decision Making purposes.

The **Draft Basic Assessment Report** is being made available to Interested & Affected Parties for a period of **30+ days,** and will be available for free download and review directly from our website (www.sescc.net) under the Public Documents tab. Furthermore, a hard copy of the document can be found at the Koeberg Municipal Library and the Koeberg Visitor Centre for review.

Please note that all comments submitted to SES in writing on the Draft Basic Assessment Report will be responded to in the Comments & Response Table. All those that submit comments will be automatically registered on the database and will be notified for the remainder of the EIA process of all reports available for review and comment. All personal information and comments received are handled in accordance with the Protection of Personal Information Act.

8.1.1 Register of Interested & Affected Parties

As per to Regulation 41(2)(b) of the EIA Regulations of 2014, as amended, all occupiers of property, surrounding landowners, local government and any other entity with a potential vested interest must be notified of a project.

Accordingly, a desktop assessment was undertaken in order to ascertain the erven and farm numbers of the adjacent affected landowners & occupiers. Stakeholders (such as the applicable Government Departments and entities with a vested interest in the proposed project) have been identified and placed on the database. The surrounding landowners and occupants will be included in the public notification process (and will be contacted through the Neighbourhood Watch WhatsApp groups). Where contact information was available to the EAP at the time of Public Participation, this was included into Appendix E1 of this BAR (in its redacted form for the purpose of the public review process).

In response to the listed activities triggered by the proposed cable infrastructure project, the following Interested and Affected Parties (I&APs) has been identified as key Stakeholders:

- A protected area identified in terms of the NEMPAA, excluding conservancies - ***Koeberg Nature Reserve, City of Cape Town, DFFE: Biodiversity Directive;***
- In areas containing indigenous vegetation - ***CapeNature***;
- Within any critically endangered or endangered ecosystems listed in terms of Section 52 of the NEMBA prior to the publication of such list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment, 2004 - ***DFFE: Biodiversity Directive***; and
- Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas - ***DFFE: Oceans and Coasts Directive***.

The list of I&APs will be maintained throughout the EIA process.

8.1.2 Landowner Consent

According to Regulation 39(1) of the EIA Regulations of 2014, as amended, where the Applicant is not the landowner, or the person in control of the land, Landowner consent is required to be obtained. The proposed cable infrastructure project is located on a portion land that belongs to the Applicant and is under the control of the Applicant.

8.1.3 Site Notice

A site notice in the appropriate size, as per the requirements of Regulations 41(2)(a) and 41(4) of the EIA Regulations of 2014, as amended, in accordance to the specifications of Regulation 41(3) of the EIA Regulations of 2014, as amended, will be erected on site in order to notify potential I&APs of the availability of the Draft BAR and inviting them to register and provide comments on the proposed cable infrastructure project.

8.1.4 Newspaper Advertisements

A newspaper advertisement, as is required in terms of Regulation 41(2)(c), has been placed in the Local Newspaper, the TableTalk, notifying potential I&APs of the availability of the Draft BAR and inviting them to register and provide comments on the proposed cable infrastructure project.

8.1.5 Additional PPP procedures

As per Regulation 41(2)(e) of the EIA Regulations of 2014, as amended, alternative reasonable measures of notification and distribution may also be used to notify the public and make the documents available to the public. For the purposes of the proposed project, the following measures will be used:

- A hard copy of the Draft Basic Assessment Report will be placed at the Koeberg Public Library for the duration of the public review period.
- A notification will be placed on the SES LinkedIn and Facebook pages, notifying electronic users/followers of the availability of the Draft BAR for commenting purposes.
- The SES website will contain a survey and commenting form easing the registration and commenting process.

8.1.6 Comments and responses

A comments and responses report (CRR) in the form of a table will be compiled for the PPP associated with the current Application for Environmental Authorisation. All received comments will be captured and addressed accordingly. Following the submission of the Final BAR, the CRR will be sent to all registered I&APs.

9. SUMMARY OF THE SPECIALIST ASSESSMENTS UNDERTAKEN

9.1 Screening Tool Results

The Department of Forestry, Fisheries & Environment (DFFE) has developed a screening tool informing the site sensitivity. This Environmental Screening Tool is a tool used toward identifying potential environmental sensitivities on a proposed site. The Environmental Screening Tool Report has been included in Appendix E of this Report. The table below provides the sensitivities identified by the tool:

Table 9-1. Environmental Screening Tool Results (as extracted 13 June 2025).

THEME	VERY HIGH	HIGH	MEDIUM	LOW
Agricultural		X		
Animal Species Theme		X		
Aquatic Biodiversity Theme				X
Archaeological and Cultural Heritage Theme				X
Civil Aviation Theme		X		
Defence Theme			X	
Palaeontology Theme	X			
Plant Species Theme			X	
Terrestrial Biodiversity Theme	X			

Based on the results indicated above, a number of specialist assessments were recommended by the Environmental Screening Tool. Table 9-2 below provides the specialist assessments recommended as well as the reasoning provided for omission of the studies not undertaken as part of this impact assessment. A site sensitivity verification report (SSVR) has been included as Appendix H6 of the BAR.

Table 9-2. Specialist Assessments as recommended by the Environmental Screening tool (Please see Appendix H6 for the SSVR).

No	Specialist Assessment	Screening Tool Sensitivity	Sensitive features identified in the Environmental Screening Tool Report	Motivation for inclusion or omission of report
1	**Agricultural Impact Assessment**	**High**	• **High:** 08 Moderate; 09 Moderate-High	**Johann Lanz** has been appointed to undertake the Agricultural Study in alignment with the relevant protocols. A summary of the findings of this report has been detailed in Section 9.2.3.
2	**Landscape / Visual Impact Assessment**	**-**	-	This assessment was **not** undertaken as part of this project as the proposed project will be located within the property designated for the Koeberg Nuclear Power Station. The proposed cable infrastructure project will not impact upon the character of the project area and will hence not affect the sense of place. Given that the proposed project forms a part of the footprint of the Koeberg Nuclear Power Station.
3	**Archaeological and Cultural Impact Assessment**	**Low**	• **Low**: Low Sensitivity	The **Agency of Cultural Resources (ACRM**, **Jonathan Kaplan)** was appointed to undertake the assessment of the impact of the proposed project on the archaeological and cultural resources. A summary of the findings has been included in Section 9.2.5.
4	**Palaeontology Impact Assessment**	**Very High**	• **Very High**: Features with a Very High paleontological sensitivity • **Medium**: Features with a Medium paleontological sensitivity	The **ARCM** appointed a sub-contractor to undertake the palaeontological assessment. A summary of the findings has been included in Section 9.2.5.
5	**Terrestrial Biodiversity Impact Assessment**	**Very High**	• **Very High**: o Koeberg Private Nature Reserve o Endangered Ecosystem Type (Cape Flats Dune Strandveld)	**Bergwind Botanical Surveys and Tours** was appointed to undertake a Terrestrial Biodiversity and Plant Assessment of the proposed project site. A summary of the findings has been included in Section 9.2.1.
6	**Aquatic Biodiversity Assessment**	**Low**	• **Low**: Low Sensitivity	**Upstream Consulting** was appointed to undertake the aquatic biodiversity assessment for the proposed cable infrastructure upgrade project. A summary of the findings has been included in Section 9.2.2. This assessment was undertaken in order to confirm (or deny the occurrence of the aquatic features located within 500 m of the project site so as to inform the process to be followed in terms of the NWA.
7	**Civil Aviation Assessment**	**High**	• **High**: o Within 8 km of other aviation aerodrome o Dangerous and restricted airspace as demarcated	The proposed project Area of Investigation is located approximately 4.4 km South-West from the Delta 200 Airstrip. The proposed site is also located within an area demarcated with dangerous or restricted airspace. As the proposed cable infrastructure upgrade will be located within the exiting Koeberg Power Plant operational footprint and the height of the proposed activities will not project higher than the existing infrastructure, no impacts in this regard is anticipated. The Civil Aviation Assessment was **not** undertaken for the proposed cable infrastructure upgrade project.
8	**Geotechnical Assessment**	**-**	-	There is currently **no** Geotechnical Assessment for the proposed project specifically. However, a Geotechnical Desktop Study report has been referenced in this Basic Assessment Report. The

No	Specialist Assessment	Screening Tool Sensitivity	Sensitive features identified in the Environmental Screening Tool Report	Motivation for inclusion or omission of report
				beforementioned report provided information with regards to the Geological, Topographic and Seismic context of the proposed cable infrastructure upgrades (Eskom Holdings, 2013).
9	**Plant Species Assessment**	**Medium**	47 species of **Medium** conservation concern was highlighted to potentially occur on site by the screening tool.	**Bergwind Botanical Surveys and Tours** was appointed to undertake a Terrestrial Biodiversity and Plant Assessment of the proposed project site. A summary of the findings has been included in Section 9.2.1.
10	**Animal Species Assessment**	**High**	• **High:** o Aves - *Circus maurus* o Aves - *Afrotis afra* o Aves – *Circus ranivorus* • **Medium:** o Invertabrate – *Pachysoma Aesculapius* o Invertabrate – Bullacris obliqua	**BlueSkies Research** was appointed to undertake the Animal Species Assessment for the proposed project site. A summary of the findings has been included in Section 9.2.4.

9.2 Summary of Key Findings & Recommendations of Potential Impacts

The following specialist assessments have been undertaken for the purpose of providing additional insights into the potential impacts of the proposed cable infrastructure upgrade on the receiving environment and to identify all licences and permits required:

- Terrestrial Biodiversity and Plant Species Specialist;
- Aquatic Biodiversity Specialist;
- Agricultural Specialist;
- Animal Species Specialist; and
- Cultural Heritage and palaeontological specialist.

Due to the study area overlapping significantly with the Specialist's Area of Investigation for the project with the reference number 14/12/16/3/3/1/2908, the specialists were approached to revise the reports compiled in 2023. Where requested, updated photographs of the Area of Investigation were provided to the specialists following the survey undertaken by the Terrestrial Biodiversity Specialist (17 June 2025) and the Overseeing EAP (24 June 2025).

9.2.1 Terrestrial Biodiversity and Plant Species Impact Assessment

Bergwind Botanical Surveys and Tours cc (Dave McDonald) has been appointed to undertake the Terrestrial Biodiversity and Plant Species Assessment for the proposed cable infrastructure upgrade project. Following his site visit on 17 June 2025, the terrestrial biodiversity sensitivity for the proposed project area was determined.

Based on the findings of the Compliance Statement, it was determined that the vegetation of the study area was originally Cape Flats Dune Strandveld as described in the Vegetation of South Africa, Lesotho, and Swaziland (VEGMAP) (Rebelo et al. 2006 in Mucina & Rutherford, 2006). This vegetation type is classified as Endangered B1(i) B2(i) B1(iii) B2(iii). However, during the site visit, it was confirmed that the vegetation now found at the site is a degraded form of the above vegetation type. Koeberg is in an area mapped as Cape Flats Dune Strandveld.

The vegetation seen currently is the result of historical disturbance. There is no doubt that the sandy soil would have been bare immediately after construction. This soil was recolonized by plant species that are part of the suite of species found in undisturbed vegetation, but they are particularly species that are 'pioneer' species. They are species that respond readily to disturbance and can survive the harsher microclimate present as opposed to the less harsh conditions of already vegetated sites. These species are as follows: *Acacia cyclops*, Asparagus sp?, Avenia fatua*, Carpobrotus edulis, Cenchrus setaceus*, Chironia baccifera, Cynanchum africanum, Euclea racemosa, Euphorbia helioscopia*, Helichrysum odoratissimum, Helichrysum pandurifolium, Lessertia frutescens, Medicago lupulina*, Metalasia muricata, Morella cordifolia, Osteospermum moniliferum, Pelargonium capitatum, Psoralea bracteolata, Ruschia macowanii, Salvia africanalutea, Searsia crenata, Searsia laevigata, Searsia undulata, Senecio burchellii, Tetragonia decumbens, Thamnochortus spicigerus, Trachyandra divaricata*. (Species with asterisks are exotic species).

The above species either occur singly or in mixed stands and they persist despite ongoing disturbance from construction and other factors. Below are photographs and descriptions of the species found within the investigation area.

	
The start of the survey track on the east side of the Koeberg complex, where the area has formerly been a place for stockpiling chipped granite used for construction. Only weeds occur in this area.	A small stand of 'strandveld' at the north end of the gravel area.
	
Osteospermum moniliferum (bitou), one of the main component species in the strandveld remnants in the study area.	*Cenchrus setaceus* (fountain grass) is an exotic grass species that favours disturbed places such as road verges and other vacant land. Without careful control, this species can become a problem.
	
Euclea racemosa (dune gwarrie) is a distinctive shrub in strandveld vegetation. Very few plants of this species were found in the survey.	*Searsia undulata* is a shrub that can form large spreading mounds such as here.

	
Lessertia frutescens (cancer bush) is a pioneer species favouring disturbed sites, as here under power lines	A patch of regenerated Cape Flats Dune Strandveld vegetation in the northeast area of the survey. The grasses in the foreground are exotic annual species.
	
View westwards along the northern boundary of the study area showing the patch of regenerated Cape Flats Duns Strandveld in the foreground.	Apart from the exotic annual plant species in the foreground, the vegetation contains typical strandveld plant species, *Pelargonium capitatum, Searsia laevigata* and *Metalasia densa*.
	
This area is a disturbed zone where strandveld has been removed for the adjacent reservoir construction.	This gravel road joins the east and west parts of the study area, in the north of the Koeberg complex. It runs immediately north of the two reservoirs that area under construction.

	
From the northwest corner of the study area in the direction of the reactor units is a flat, open area (view southwards). This is typical of where the original dunes were flattened. Degraded strandveld has recolonised this area.	In the area described above the degraded strandveld has formed and low to mid-high shrubland with exotic annual grasses. The dominant shrub here is *Osteospermum moniliferum*.

Please see Appendix G1 for all photos included in the Terrestrial Biodiversity and Plant Species Compliance Study.

9.2.1.1 Site Sensitivity

The National Web-based Environmental Screening Tool was applied to the area surveyed at Koeberg. The result of the analysis is that the 'PLANT SPECIES THEME' is **MEDIUM SENSITIVITY** over the northern part of the study area and the 'TERRESTRIAL BIODIVERSITY THEME' is **VERY HIGH SENSITIVITY** for the entire study area.

The above classifications or estimates of sensitivity from the screening tool are not correct. The reason is that the basis of the analysis is faulty. For the vegetation sensitivity, the analysis is based on the vegetation being **UNDISTURBED** endangered Cape Flats Dune Strandveld, which it is not, and that the vegetation has the plant species listed in the Screening Tool Report present, which is also not the case. Therefore, the entire area should be mapped as having **LOW** sensitivity.

The basis for the terrestrial biodiversity is also faulty since all the 'sensitivity features' classified as **VERY HIGH** should be **LOW**. Once again, the reason for the erroneous classification is that the premise is that the vegetation is endangered Cape Flats Dune Strandveld, which it is not. The Koeberg Nature Reserve, that is outside the secure nuclear reactor area, has minimal influence on the area surveyed.

The Western Cape Biodiversity Spatial Plan 2023 (CapeNature 2024) recognizes the entire Koeberg area as part of a Protected Area. From field observations it was determined that the vegetation is nowhere near as sensitive as the Red Listed Ecosystems classification indicates. The areas surveyed inside the secure zone at Koeberg are degraded Cape Flats Dune Strandveld containing relatively few plant species when compared with undisturbed strandveld vegetation. It should therefore not be classified as endangered nor a Red Listed ecosystem.

No observations during the survey indicated that the habitat concerned has high value for any animal or bird species. The only evidence of animal activity was the presence of molehills caused by the Cape Dune Mole-rat (*Bathergus suillus*) but even these were not extensive.

9.2.1.2 Conclusion

The botanical and terrestrial biodiversity investigation at Koeberg, conclusively showed that the remaining vegetation present in the secure zone, although similar to Cape Flats Dune Strandveld is in reality a highly degraded form of this vegetation type that recolonized after

the construction of the Koeberg Nuclear Reactor facility in the mid-1970s. The plant species recorded are all 'pioneer' species and no species are species of conservation concern. In general, the vegetation has **low sensitivity** and most certainly cannot be classified as endangered. The diversity of fauna in the study is also very low and not threatened.

The proposed infrastructure development is **fully supported**, and compliance statement is not issued with any conditions.

9.2.2 *Aquatic Biodiversity Assessment*

Although the site is considered to have a Low Sensitivity, as indicated in Figure 5-4, the screening tool did identify aquatic resources within close proximity to the proposed activities. It was confirmed that these resources are located within 500 m of the proposed project's footprint. Upstream Consulting was appointed to confirm the desktop findings and to assess the impacts of the proposed activities on the aquatic resources within proximity to the project area . Following the site visit conducted on 20 November 2023, the specialist confirmed that a Compliance Statement would be required for the proposed activities. The Aquatic Biodiversity Compliance Statement has been included as Appendix H3 of this BAR.

According to the appointed specialist, the proposed activities are located upon a secondary dune field and there are no drainage lines indicated within or near the study site. The sandy soils have a high infiltration rate and there is limited surface runoff.

The site assessment determined that there are no aquatic features within the Area of Investigation. Within the 500 m radius study area there are two artificial ponds and a depression wetland. However, due to their location in the landscape and distance from the activities, these features will not be impacted by the project. Therefore, the sensitivity rating is Low for the aquatic biodiversity theme Figure 9-1.

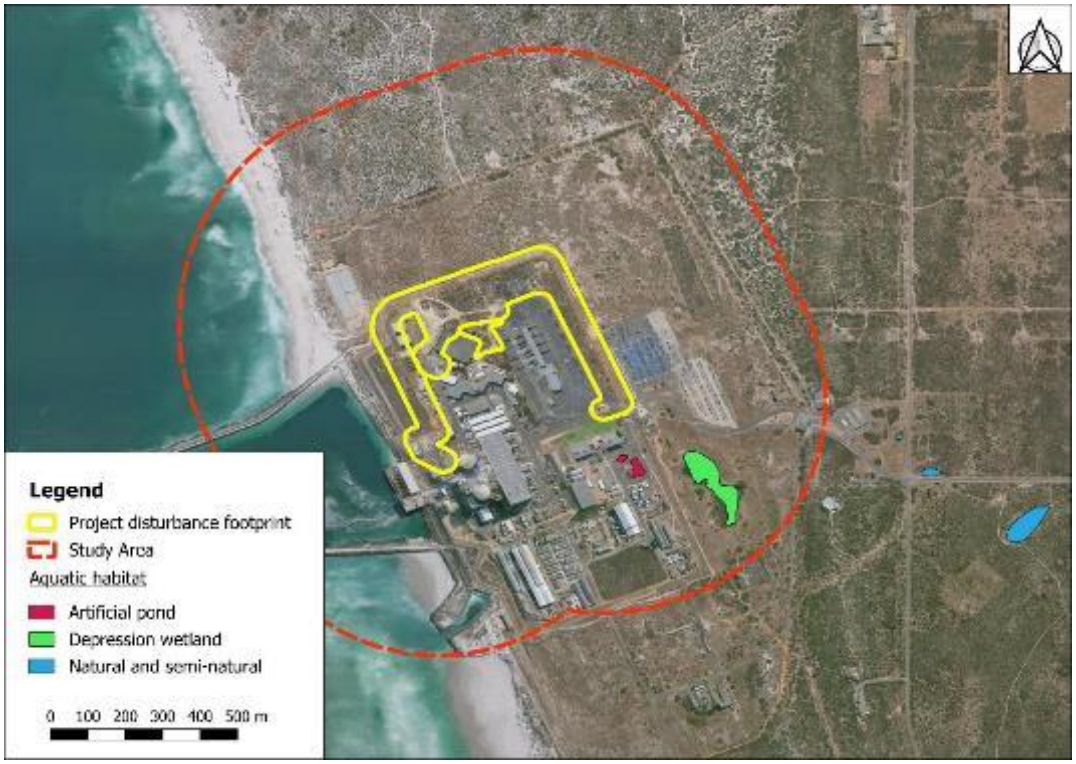

Figure 9-1. Map showing the aquatic features within the study area (Source: Fordham, 2023).

9.2.2.1 *Conclusion of the Aquatic Compliance Statement*

The DFFE Screening Tool resulted in Low aquatic biodiversity sensitivity rating within the site footprint but showed areas of higher sensitivity within a 500m radius of the activities. Following site verification, this Low sensitivity rating for the construction area is confirmed. There are no aquatic features that will be impacted by the project. No conditions of approval or specific aquatic mitigation is required for this project. It is therefore recommended that the site sensitivity be regarded as 'Low' for the aquatic biodiversity theme and that the Compliance Statement be submitted with the EIA application.

9.2.3 ***Agricultural Assessment***

According to the Environmental Screening Tool Report generated for the proposed project, the site has been classified as being highly sensitive in terms of the Agriculture Theme (Figure 9-2). Johann Lanz was appointed to undertake the Agricultural Assessment for the proposed activities. It was confirmed that due to the nature of the existing land use of the proposed project area (the KNPS), an agricultural compliance statement would suffice. The Agricultural Compliance Statement has been attached as Appendix H5 of this report.

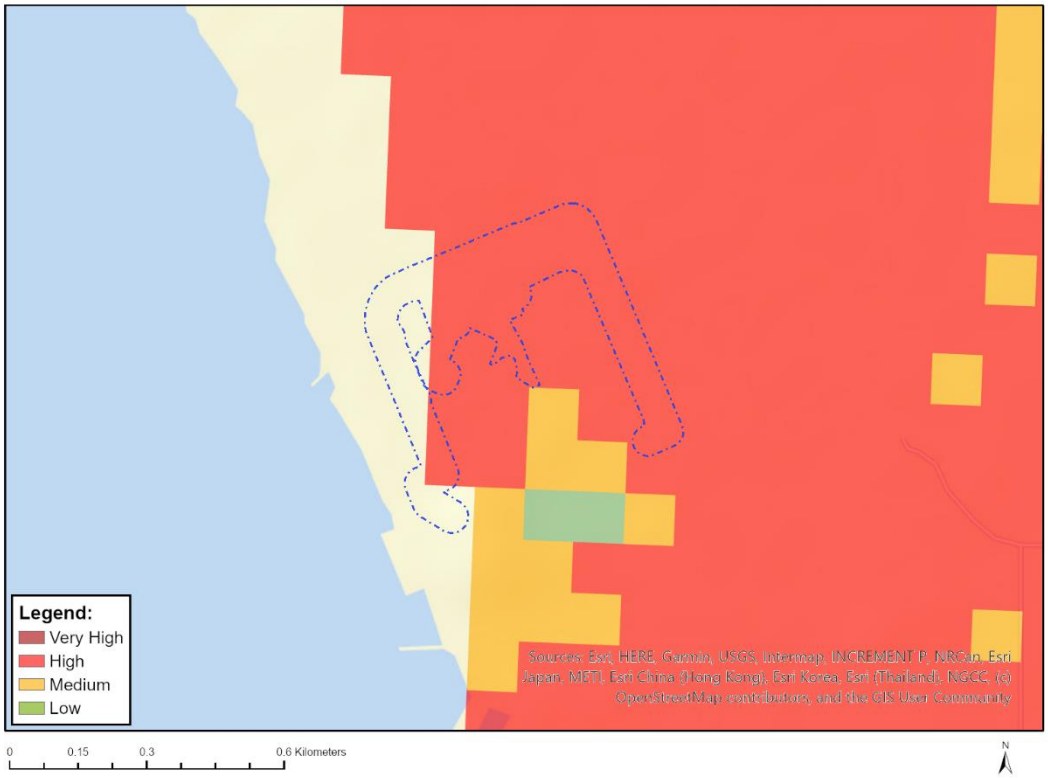

Figure 9-2. Environmental Screening Tool Results: Agriculture Theme.

According to the statement provided by the specialist (Lanz, 2023), agricultural production potential, and particularly cropping potential, is one of three factors that determines the significance of an agricultural impact, together with size of footprint and duration of impact. In this case the site has zero agricultural production potential because of its location within a nuclear power plant and its zoning as risk industry.

An agricultural impact is a change to the future agricultural production potential of land. Because the site has zero potential for agricultural production, the development cannot cause a change in production potential. Therefore, the overall negative agricultural impact of the development (loss of future agricultural production potential) is assessed as being of zero significance and therefore as acceptable.

9.2.3.1 *Conclusion of the Agricultural Compliance Statement*

The agricultural impact of the proposed activities is assessed as being acceptable because it results in zero loss of future agricultural production potential. From an agricultural impact point of view, it is recommended that the development be approved. The conclusion of this assessment on the acceptability of the proposed activities and the recommendation for its approval is not subject to any conditions.

9.2.4 ***Animal Species Assessment***

Blue Skies Research (Dr. Jacobus Visser) was appointed to undertake the Animal Species Assessment for the proposed activities. The site visit was conducted on 20 November 2023 during which time the specialist made all required observations. As the project area for the activities proposed in terms of this BAR overlapped significantly with that of the approved Reservoir infrastructure on site, the specialist was requested to consider the activities as well. The Compliance Statement provided by the specialist has been included as Appendix H2 of this Basic Assessment Report.

9.2.4.1 *Faunal species composition*

According to the Faunal Species Compliance Statement compiled for the proposed activities, the following faunal species were observed during the site visit:

- 6 Mammal species:
  - *Chrysochloris asiatica* (Cape Golden Mole);
  - *Bathyergus suillus* (Cape Dune Molerat);
  - *Rhabdomys pumilio* (Four-striped Grass Mouse);
  - *Otomys unisulcatus* (Bush Vlei Rat);
  - *Herpestes pulverulentus* (Cape Gray Mongoose); and
  - *Gerbilliscus afra* (Cape Gerbil).
- 13 Bird species:
  - *Larus dominicanus (*Kelp Gull*);*
  - *Columba guinea* (Speckled Pigeon*);*
  - *Falco rupicolus* (Rock Kestrel*);*
  - *Pternistis capensis* (Cape Spurfowl*);*
  - *Prinia maculosa* (Karoo Prinia);
  - *Corvus albicollis* (White-necked Raven);
  - *Cecropis cucullata* (Greater Striped Swallow);
  - *Telophorus zeylonus* (Bokmakierie)
  - *Tychaedon coryphoeus* (Karoo Scrub Robin);
  - *Passer melanurus* (Cape Sparrow);
  - *Pycnonotus capensis* (Cape Bulbul)
  - *Onychognathus morio* (Red-winged Starling)
  - *Sturnus vulgaris* (Common Starling)
- *No dungbeetle species, grasshoppers/katydids or reptilian species were observed during the field survey.*

It was noted that the site conditions in the study area currently point to altered and compromised ecosystem dynamics, isolation from the surrounding natural landscape, impaired terrestrial faunal and avifaunal diversity and a degraded habitat structure with significant daily disturbances. To this end, the site does not constitute suitable habitat for any of the SCC considered in the current assessment, and it is highly unlikely that these species will occur there (Table 9-3).

Table 9-3. Probability of occurrence of specific SCC in the study area.

Species	Common name	Status	Probability of occurrence	Justification
Circus maurus	Black Harrier	EN	Low	The species was not confirmed during the field survey, and has been recorded only four times in the study area landscape more than six years ago (November 2017, Appendix A). Although the site does support the preferred rodent prey base for this species, these species only occur in a small portion of remnant and degraded vegetation which is surrounded by wire mesh fencing, and is subjected to daily disturbances. Taken together, it is highly unlikely that this species will be present.
Circus ranivorus	African Marsh Harrier	LC	Low	The species was not confirmed during the field survey, but has been recorded a number of times (13 times) in the study area landscape with the last observation three years ago (October 2021, Appendix A). Even so, the site does not contain any of the wetland habitats required by this species and furthermore supports only a small portion of remnant and degraded vegetation which is surrounded by wire mesh fencing, and is subjected to daily disturbances. Taken together, it is highly unlikely that this species will be present.
Sagittarius serpentarius	Secretarybird	EN	Low	The species was not confirmed during the field survey, and has been recorded only four times in the study area landscape more than three years ago (January 2020, Appendix A). In addition, the site only supports a small portion of remnant and degraded vegetation which is surrounded by wire mesh fencing, and is subjected to daily disturbances. Taken together, it is highly unlikely that this species will be present.
Anthropoides paradiseus	Blue Crane	VU	Low	The species was not confirmed during the field survey, but has been recorded a high number of times (45 times) in the study area landscape, with the latest observation in April 2023 (Appendix A). Even so, the site does not harbour an adequate prey base for this species and furthermore only supports a small portion of remnant and degraded vegetation which is surrounded by wire mesh fencing, and is subjected to daily disturbances. Taken together, it is highly unlikely that this species will be present.
Afrotis afra	Southern Black Korhaan	VU	Low	The species was not confirmed during the field survey, and has been recorded only once in the study area landscape more than seven years ago (October 2016, Appendix A). In addition, the site only supports a small portion of remnant and degraded vegetation which is surrounded by wire mesh fencing, and is subjected to daily disturbances. Taken together, it is highly unlikely that this species will be present.
Pachysoma aesculapius	West Coast Flightless Dungbeetle	VU	Low	This species was not observed during the field survey, with the site furthermore not harbouring any larger mammal species which provide dung for this species. In addition, the site only supports a small portion of remnant and degraded vegetation which is surrounded by wire mesh fencing, and is subjected to daily disturbances. Taken together, it is highly unlikely that this species will be present.
Bullacris obliqua	Bladder Grasshopper	VU	Low	This species was not observed during the field survey with the site furthermore not harbouring the preferred host plant of this species (*Eriocephalus africanus*). In addition, the site only supports a small portion of remnant and degraded vegetation which is surrounded by wire mesh fencing, and is subjected to

Species	Common name	Status	Probability of occurrence	Justification
				daily disturbances. Taken together, it is highly unlikely that this species will be present.

9.2.4.2 *Faunal Habitats present on site*

The study area is comprised of only a single natural habitat type comprising low remnant shrubland vegetation of Cape Flats Dune Strandveld which exists in a degraded and open state (Figure 12). In the context of the current development, the footprints of the areas to be cleared for upgrading infrastructure intersect with a small portion of this habitat type. The remaining larger part of the site comprises buildings and infrastructure, or cleared areas and access roads. No natural vegetation remains in these parts, which intersect with the placement of the proposed pipelines and proposed electrical line.

The SEI results for habitats have been determined and the spatial representation for each habitat and its concomitant SEI category portrayed in Figure 9-4. The site currently does not support any confirmed or potential subpopulations of terrestrial faunal or avifaunal SCC, with the only remaining natural habitats existing in a degraded state, and this habitat subjected to multiple major negative ecological impacts. As such, all habitats on the site are considered to have a "Very low" SEI. Minimisation mitigation is therefore acceptable, allowing for development activities of medium to high impact without restoration activities being required.

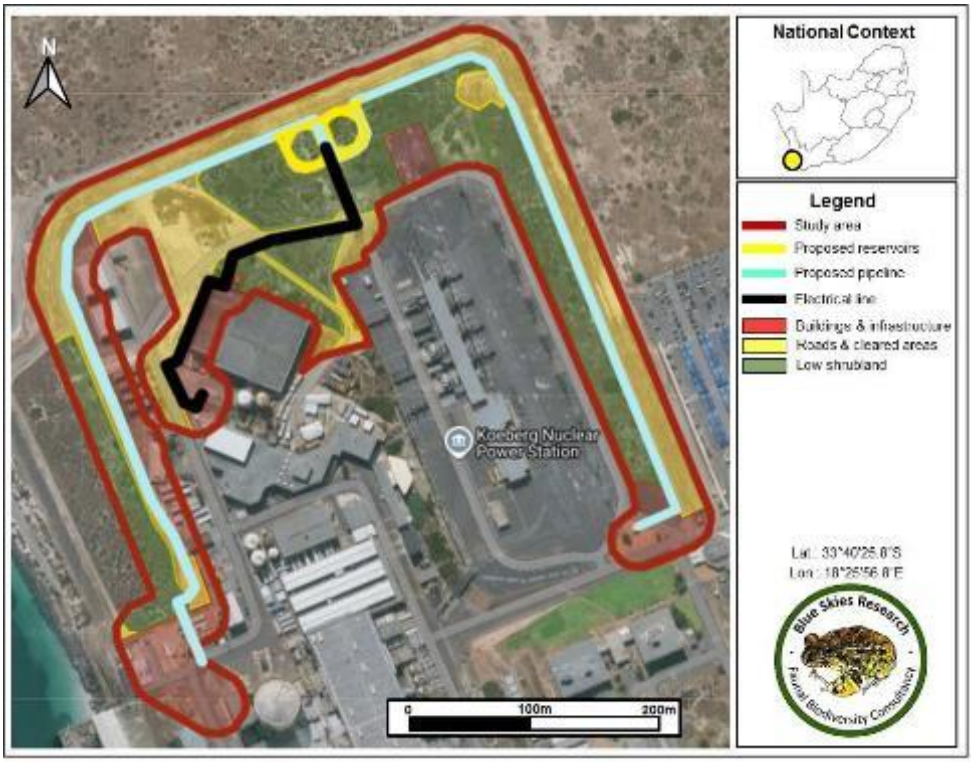

Figure 9-3. A broad indication of the spatial extent of the habitat types within the study area.

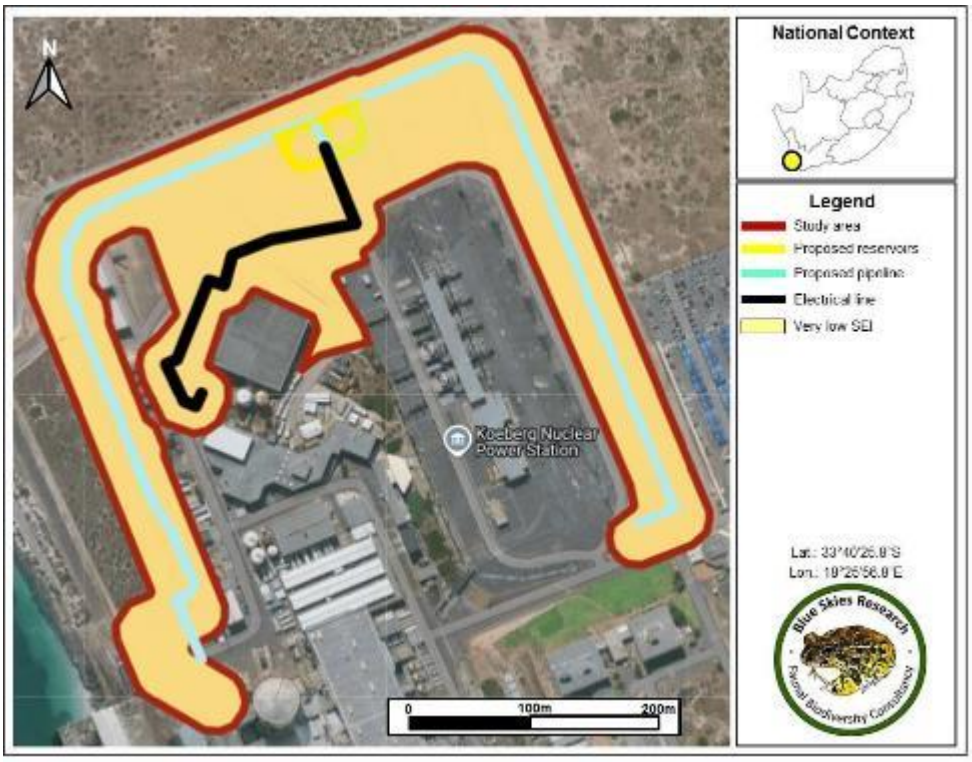

Figure 9-4. Spatial representation of the SEI of habitat within the study area.

9.2.4.3 *Conclusion*

Taken together, the results of the report indicate the following:

- The study area is comprised of only a single natural habitat type of low remnant shrubland vegetation of Cape Flats Dune Strandveld which exists in a degraded and open state. The remaining larger part of the site comprises buildings and infrastructure, or cleared areas and access roads.
- The site supports a highly impaired faunal and avifaunal diversity, some intact predator-prey dynamics, but with altered and compromised ecosystem dynamics in an isolated environment. The site therefore does not form any important ecological link in the study area landscape and has a low sensitivity from a faunal biodiversity perspective.
- The site does not constitute suitable habitat for any of the SCC considered in the current assessment, and it is highly unlikely that these species will occur here.
- All habitats on the site are considered to have a "Very low" SEI where minimisation mitigation is therefore acceptable, and allowing for development activities of medium to high impact without restoration activities being required.
- Because the study area is located within the grounds of the Koeberg Nuclear Power Station, several current impacts are evident and it is highly likely that the natural habitat on the site will continue to degrade the site over the next five to ten years.
- Planned development activities across the project footprint (construction of two hard water reservoirs, installation of associated inlet and outlet pipelines and electrical infrastructure, and unearthing and upgrading of services over a small south-central area) will be restricted to areas of low faunal sensitivity and should not impinge on faunal biodiversity during the construction and operational phases of the project, either on the site or in the surrounding landscape.
- The sensitivity of the study area is confirmed to be "Low" from a terrestrial faunal and avifaunal perspective.

Taken together, the site is of a lower sensitivity from a faunal biodiversity perspective and project activities will not have any further significant direct impacts on terrestrial biodiversity features in the study area landscape. The current development layouts and associated

activities are supported from a faunal biodiversity perspective, and are therefore acceptable for Environmental Authorisation (EA).

9.2.5 ***Cultural and Palaeontology Feedback***

According to the Environmental Screening Tool Report generated for the proposed activities, the site has been classified as being of low sensitivity in terms of the Archaeological and Cultural Heritage Theme (Figure 9-5) and very highly sensitive in terms of the Paleontological Theme (Figure 9-6).

Figure 9-5. Environmental Screening Tool Results: Archaeological and Cultural Heritage Theme.

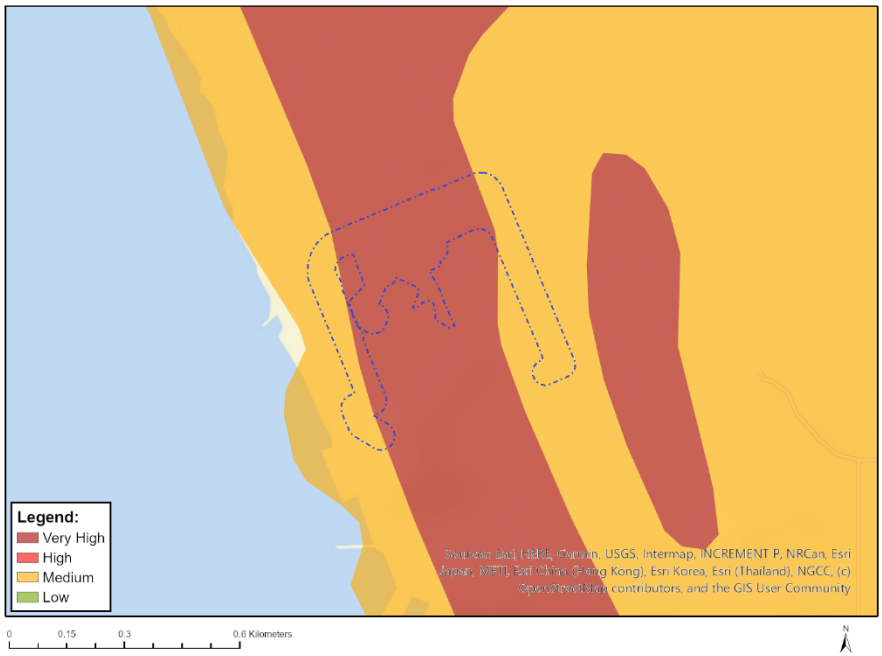

Figure 9-6. Environmental Screening Tool Results: Palaeontological Theme.

The Agency for Cultural Resource Management (Jonathan Kaplan) was appointed to fulfil the requirements of the NHRA for the proposed activities. Subsequent to his site visit conducted on 14 November 2023, the specialist confirmed that a Notice of Intent to Develop (NID) would be

required and further recommended that no further Heritage Impact Assessment be conducted. Below is a summary of the findings as indicated in the NID compiled by the specialist (Appendix H4).

- No archaeological resources were recorded during a survey of the proposed (new) reservoirs & associated infrastructure.
- A broken Middle Stone Age (MSA) flake and a small nodule of silcrete were recorded in the footprint area of the 2016 Alt 1 reservoir (Kaplan 2016 & attached as part of the NID), alongside the location for the hard water reservoir tanks (refer to Figure 6). Apart from a few fragments of weathered shellfish (a-diagnostic limpets, white sand mussel & Venus clams) no other archaeological resources were identified in the surrounding area, that included the current footprint area.
- It was noted that the Duinefontein 2 archaeological excavation, situated about 850m north of the proposed new reservoir site, shows that Pleistocene fossil bones and Middle Stone Age tools occur in the shallow subsurface of the Duynefontyn area, as is also attested by the abundant finds of such material exposed by wind erosion (Cruz-Uribe et al 2003; Deacon 1975).

The feedback from the Palaeontological Specialist concluded:
According to Pether (2025) pale coversands of the Witzand Formation cover the area in the form of sandsheets and small dunes. The Additional Area is situated on the underlying Langebaan Formation aeolianite (Figure below), the calcrete capping of which is locally exposed in patches between the thinner coversands

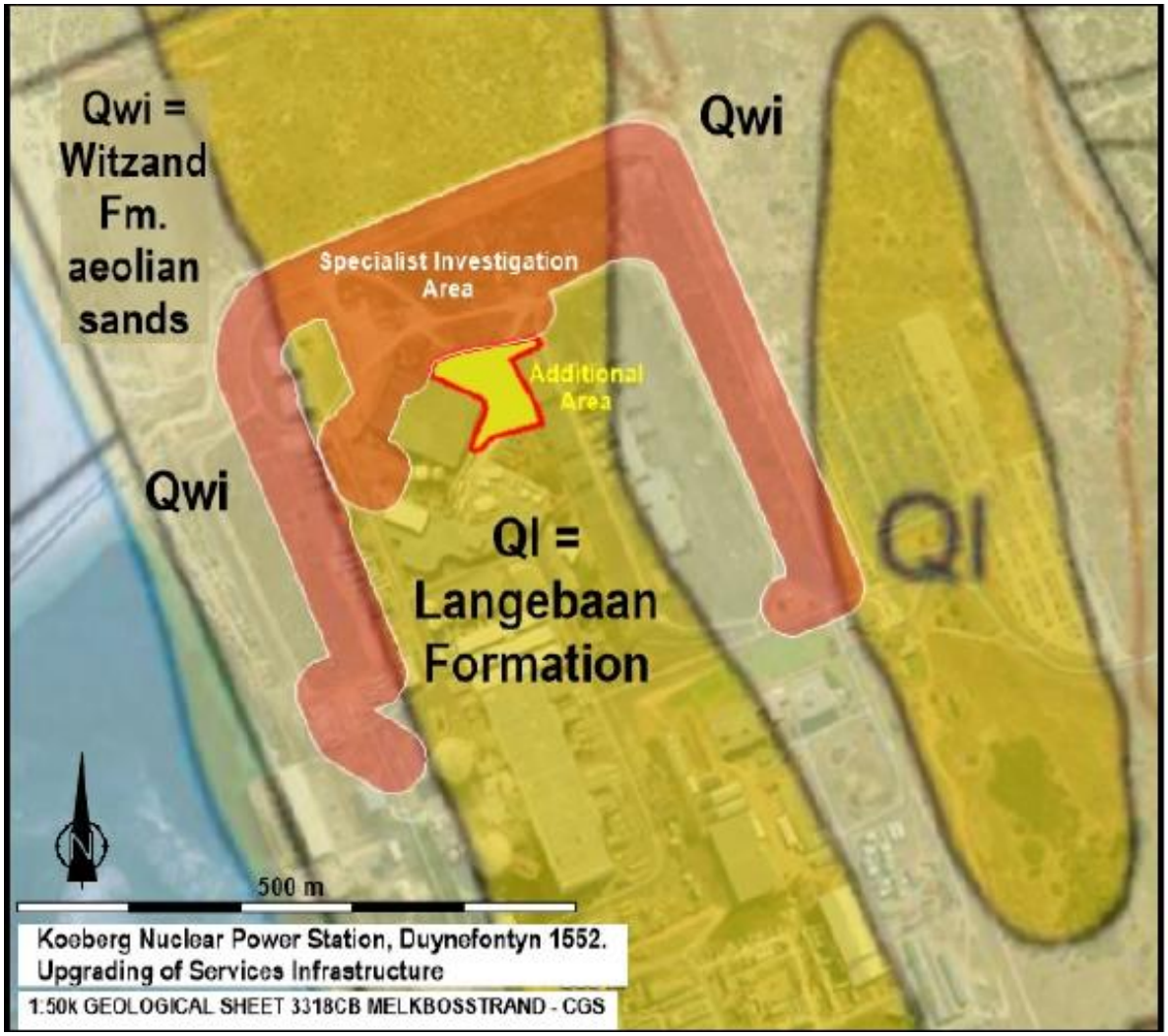

Figure 9-7. Geological context of the previously area (red polygon) assessed by Pether in 2025 & the Additional Area (small yellow polygon outline in red)

Assuming that installations will entail excavations 1-3m depth, Pether (2023) notes `that there is a possibility that fossils and artefacts could be exposed in excavations made for the proposed project'.

Due to the association of Stone Age material and fossil bones on the shallowly buried palaeosurfaces the palaeontological sensitivity rating of the Langebaan Fm. is Very High (Figure below), which is particularly pertinent in this area (Pether 2023).

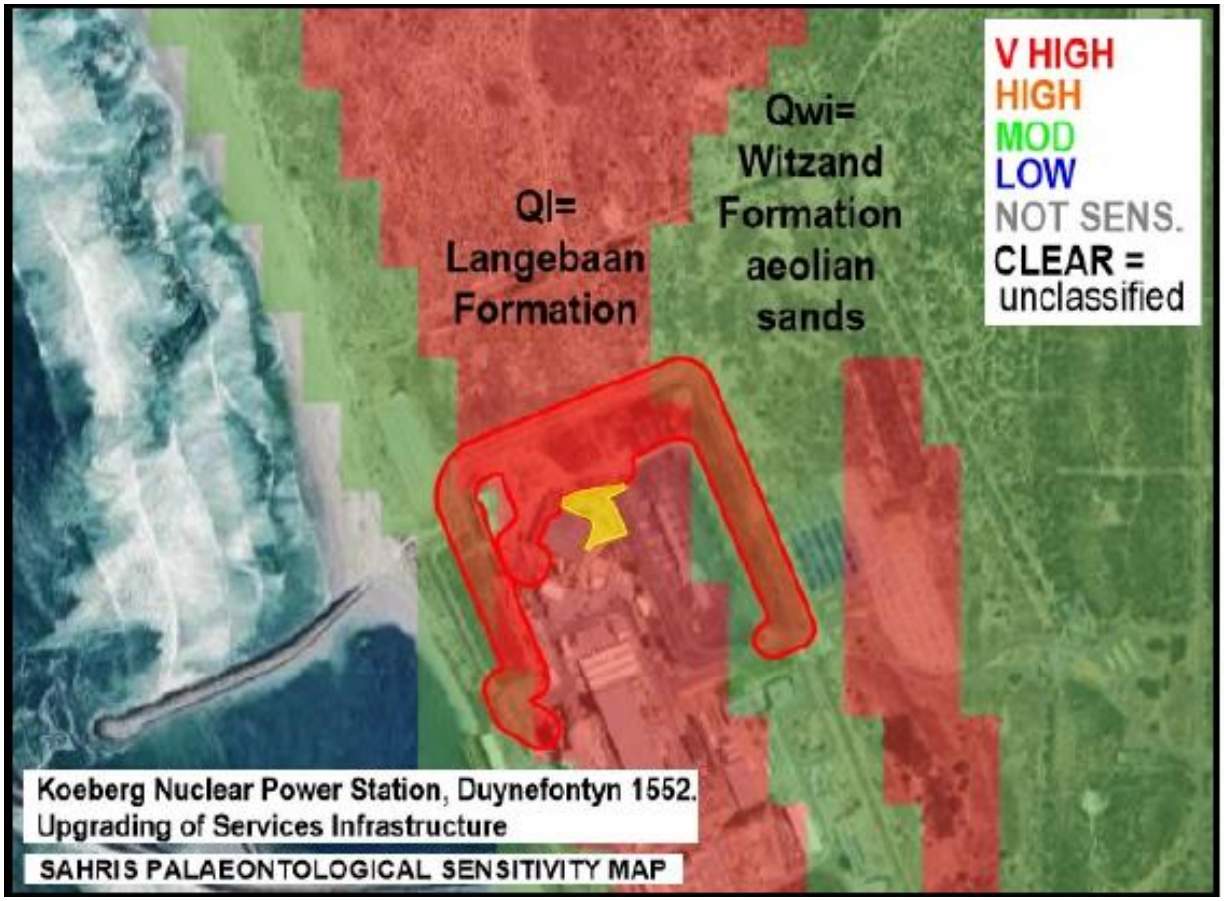

Figure 9-8. Palaeontological Sensitivity of the formations in the development area (Pether 2025).

The upgrading of services will involve the re-excavation of disturbed ground in the existing infrastructure trenches. Nevertheless, *ex-situ* fossils and archaeological material may be present in the disturbed sediments, and "new ground" is also likely to be excavated in places.

According to Pether (2025), a new PIA is `considered to be unnecessary as it will just duplicate the content of the existing detailed PIA by Avery (2016).

According to the HIA (Avery, 2016), the site is located in close proximity to four known palaeontological sites (which will be listed for the purpose of this assessment; Please refer to Appendix H4 for the detailed description of the various palaeontological sites in the greater area as indicated in Figure 9-9).

Figure 9-9. Palaeontological Sites in the greater area (Avery, 2016).

Palaeontological remains are widely distributed through the Springfontyn Formation and sparsely in the Langebaan Formation (Pether, 2009, Pether, 2010). While a fossil record for the proposed reservoir alternatives does not currently exist, sufficient regional information is available to make at least general comments on what may be encountered in the sediments within the power station precinct. It should be appreciated that, although there are exceptions such as Besaansklip (Brink, 2005), Sea Harvest (Grine and Klein 1993) and Hoedjiespunt (Berger and Parkington, 1995, Kyriacou, et al., 2015, Stynder, 1997, Will, et al., 2013) in which large numbers of vertebrate bones are preserved in, or contiguous with, Langebaan Formation contexts, palaeontological and archaeological remains are more likely to be sparsely distributed in patches or as isolated items in this formation (Pether, 2013, Pether, 2006). Sediments of the Springfontyn Formation that continue below the proposed depth of the reservoir base also include palaeontological remains as do those of the deeper Varswater Formation (Rogers, 1980, Rogers, 2006); deposits at depth are unlikely to be affected by excavations for this project. It should also be noted that friction piles, which will extend below the reservoir base, will displace, but not remove material they pass.

Palaeontological material is currently known from sediments underlying Duynefontyn 34 and adjacent areas. Geotechnical investigation or test excavations may provide an opportunity to better assess the possibility that palaeontological and archaeological remains will be encountered during excavations.

In addition to much older marine fossils, sediments exposed during construction of the Koeberg Nuclear Power Station and in the Koeberg Nature Reserve have yielded important traces of Pleistocene terrestrial fossils and Early Stone Age human activity.

DFT 2 and DFT 4
Two significant excavated samples, DFT 4, a hyaena den and DFT 2 on ancient land surfaces around wetlands, have yielded 330 ka (thousand years old) and 400 ka Middle Pleistocene fossils of a wide range of mainly terrestrial mammals and birds and Early Stone Age artefacts (Cruz-Uribe, et al., 2003, Sampson, 2003). Depth below the surface of undisturbed fossiliferous sediment ranges from 0.0 m on deflated surfaces (Horizon 1) to approximately 1.5 m, at which level the water table prevented further excavation.

Koeberg Nuclear Power Station
During construction of the Koeberg Nuclear Power Station, which reached Malmesbury Group bedrock at -10 m below sea level (Rogers, 1979, Rogers, 1980, Rogers, 2006, Rogers, 1982), the 5 Ma Early Pliocene Varswater Formation sediments yielded marine mammals, mainly whales, but also a range of marine fish, seabirds and, possibly, an even earlier (than DFTn) species of fur seal (Avery and Klein, 2011, Simpson, 1975, Olson, 1985, Govender, In Press).

It is clear from the above that the region and Koeberg site are paleontologically important.

Springfontyn Cliffs
This is the type locality for the Springfontyn Formation. Located at the beach, it comprises a series of calcretes and soil horizons with sparse Middle Pleistocene fossils between Holocene Witzand Formation cover sands and Early Pliocene Varswater Formation (Rogers, 1980).

Table 9-4 provides a summary of the abovementioned palaeontological sites within close proximity to the proposed activities.

Table 9-4. Summary of the existing known palaeontological sites within close proximity to the proposed activities (Avery, 2016).

Site	Formation	Selected References	Type of Occurrence	Acronym
DFT 2	Langebaan Springfontein	(Cruz-Uribe, et al., 2003, Klein, et al., 1999, Sampson, 2003)	Palaeontological and Pleistocene archaeological. Terrestrial and marine taxa and fresh/brak water molluscs and anurids.	DFT2
DFT 4	Springfontein	Klein unpublished (pers. Comm.)	Palaeontological. Terrestrial Taxa. Hyaena accumulation.	DFT4
Koeberg Reactors	Varswater	(Rogers, 1980, Rogers, 2006, Govender, In Press)	Palaeontological. Early Pliocene, Pleistocene. 5 Ma to 2.8 Ma. Marine and/or terrestrial taxa.	Koeb
Springfontein – cliffs	Langebaan Springfontein	(Rogers, 1980, Rogers, 2006, Rogers, 1982, Theron, et al., 1992)	Palaeontological. Middle Pleistocene terrestrial taxa and fresh/brak water molluscs.	Scliff

9.2.5.1 Recommendations and observations included in the NID
At the time of the compilation of this BAR, it was noted that the current monitoring of excavations for the concrete water tanks, and water intake pipeline (as per EA Ref: 14/12/16/3/3/1/2908) have so far not revealed any archaeological or fossil heritage resources or deposits (Kaplan 2025 in prep). The subsurface deposits are disturbed due to previous excavations conducted in the area during the 1980s when the KNPP was built. It was concluded that a Chance Find Protocol for Fossils must be included in the EMP.

10. ENVIRONMENTAL IMPACT ASSESSMENT AND METHODOLOGY

10.1 Potential Environmental Impacts Identified

The following potential environmental impacts have been identified by the EAP. These impacts have been substantiated by input from the various specialists and confirmed that these impacts would have the potential to occur during the construction and post-construction / Rehabilitation phases of the proposed cable infrastructure project. These impacts would be required to be avoided, and if unavoidable, mitigated to an acceptable level of impact significance.

10.1.1 Construction Phase

- **Terrestrial Biodiversity Impact - Permanent or temporary loss of vegetation cover** as a result of site clearing: Site clearing before construction will result in the blanket clearing of vegetation within the affected footprint.
- **Terrestrial Biodiversity impact – Impact upon potential Species of Conservation Concern** found on site as a result of the site clearance activities required for the proposed project site.
- **Terrestrial Biodiversity impact – Infestation by Alien invasive plant species** as a result of poor site management following clearance activities.
- **Faunal impact – Loss of Faunal Habitat and displacement of faunal SCCs:** The proposed activity will result in the loss of habitat for species of conservation concern.
- **Cultural Heritage Impact – Loss of Heritage material**, no features of archaeological significance were observed, however in the unlikely event of unearthing material of archaeological concern during the construction phase of the proposed cable infrastructure project, contingencies would be required to be in place.
- **Palaeontological impact – Loss and discovery of fossil-bearing deposits** during excavation activities into potentially fossil-bearing deposits.
- **General Impact – Pollution of groundwater and surface water resources** by the construction vehicles and negligence during the construction phase of the proposed cable infrastructure project.
- **General Nuisance impact – Noise, dust and visual impact** as a result of increased vehicular movement during the construction phase of the proposed cable infrastructure project as well as poor housekeeping practices creating unsightly views of the construction activities.

10.1.2 Post-Construction / Rehabilitation Phase

- **Terrestrial Biodiversity impact – Infestation by Alien invasive plant species** as a result of poor site management following the construction activities.
- **Terrestrial Biodiversity impact – Habitat fragmentation** could potentially be seen during the post-construction rehabilitation phase for as long as rehabilitation of the site has not taken place. Post-construction rehabilitation phase impacts include further loss of current rather low levels ecological connectivity across the site and associated habitat fragmentation.
- **Socio-Economic impact – Benefits of the upgraded infrastructure** for not only the operational activities associated with the KNPS, but the proposed cable infrastructure project will also, inherently, benefit the national regime as well.

10.2 Methodology Used in Determination of the Significance of Potential Impacts

The assessment criteria utilised in this environmental impact assessment is based on, and adapted from, the Guideline on Impact Significance, Integrated Environmental Management

Information Series 5 (Department of Environmental Affairs and Tourism (DEAT), 2002) and the Guideline 5: Assessment of Alternatives and Impacts in Support of the Environmental Impact Assessment Regulations (DEAT, 2006).

The impacts have henceforth been determined through the following parameters:

- The **extent** of the anticipated impact.
- The **duration** for which the impact will be exercised.
- The **probability** of occurrence of the anticipated impact.
- The **significance** of the anticipated impact.
- How **reversible** the anticipated impact would be.
- How **mitigable** the anticipated impact would be.
- The **degree of loss** of the resources.
- The **cumulative impact** of the anticipated aspect.
- The significance of the **consequence** of the aspect.

Table 10-1. Methodology for determining the Impacts of the proposed project.

Determination of the Extent (Scale)	
Site specific	On site or within 100m of the site boundary, but not beyond the property boundary
Local	The impacted area includes the whole or a measurable portion of the site and property, but could affect the area surrounding the development, including the neighbouring properties and wider municipal area.
Regional	The impact would affect the broader region (e.g. neighbouring towns) beyond the boundaries of the adjacent properties.
National	The impact would affect the whole country (if applicable)

Determination of Duration	
Temporary	The impact will be limited to the construction phase
Short term	The impact will either disappear with mitigation or will be mitigated through a natural process in a period shorter than 8 months after the completion of the construction phase.
Medium term	The impact will last up to the end of the construction phase, where after it will be entirely negated in a period shorter than 3 years after the completion of construction activities.
Long term	The impact will continue for the entire operational lifetime of the development, but will be mitigated by direct human action or by natural processes thereafter.
Permanent	This is the only class of impact that will be non-transitory. Such impacts are regarded to be irreversible, irrespective of what mitigation is applied.

Determination of Probability	
Improbable	The possibility of the impact occurring is very low, due either to the circumstances, design or experience.
Probable	There is a possibility that the impact will occur to the extent that provisions must therefore be made.
Highly probable	It is most likely that the impact will occur at some stage of the development. Plans must be drawn up to mitigate the activity before the activity commences.
Definite	The impact will take place regardless of any prevention plans

Determination of Significance (without mitigation)	
No significance	The impact is not substantial and does not require any mitigation action.
Low	The impact is of little importance but may require limited mitigation.
Medium	The impact is of sufficient importance and is therefore considered to have a negative impact. Mitigation is required to reduce the negative impact to acceptable levels.
Medium-High	The impact is of high importance and is therefore considered to have a negative impact. Mitigation is required to manage the negative impacts to acceptable levels.
High	The impact is of great importance. Failure to mitigate with the objective of reducing the impact to acceptable levels could render the entire development option or entire project proposal unacceptable. Mitigation is therefore essential.
Very High	The impact is critical. Mitigation measures cannot reduce the impact to acceptable levels. As such the impact renders the proposal unacceptable.

Determination of Significance (with mitigation)	
No significance	The impact will be mitigated to the point where it is regarded to be insubstantial
Low	The impact will be mitigated to the point where it is of limited importance.
Medium	Notwithstanding the successful implementation of the mitigation measures, the impact will remain of significance. However, taken within the overall context of the project, such a persistent impact does not constitute a fatal flaw.

High	Mitigation of the impact is not possible on a cost-effective basis. The impact continues to be of great importance and taken with the overall context of the project, is considered to be a fatal flow in the project proposal.

Determination of Reversibility	
Completely Reversible	The impact is reversible with implementation of minor mitigation measures
Partly Reversible	The impact is partly reversible but more intensive mitigation measures
Barely Reversible	The impact is unlikely to be reversed even with intense mitigation measures
Irreversible	The impact is irreversible, and no mitigation measures exist.

Determination of Degree to which an impact can be Mitigated	
Can be mitigated	The impact is reversible with implementation of minor mitigation measures
Can be partly mitigated	The impact is partly reversible but more intense mitigation measures
Can be barely mitigated	The impact is unlikely to be reversed even with intense mitigation measures
Not able to mitigate	The impact is irreversible, and no mitigation measures exist.

Determination of Loss of Resources	
No loss of resource	The impact will not result in the loss of any resources.
Marginal loss of resource	The impact will result in marginal loss of resources.
Significant loss of resources	The impact will result in significant loss of resources.
Complete loss of resources	The impact will result in a complete loss of all resources.

Determination of Cumulative Impact	
Negligible	The impact would result in negligible to no cumulative effects.
Low	The impact would result in insignificant cumulative effects.
Medium	The impact would result in minor cumulative effects.
High	The impact would result in significant cumulative effects.

Determination of Consequence significance	
Negligible	The impact would result in negligible to no consequences.
Low	The impact would result in insignificant consequences.
Medium	The impact would result in minor consequences.
High	The impact would result in significant consequences.

10.3 Description and Assessment of the Significance of Impacts Prior and After Mitigation

Based on the sections above, the potential impacts have been evaluated and have been described in the sections below:

10.3.1 Pre-Construction Phase

10.3.1.1 Compliance with legislative requirements

Alternative:	Preferred alternative	No-Go Alternative
Potential impact and risk:	**Compliance with legislative requirements** The proposed works are subject to a number of approvals and permits from various spheres of the environment. Commencement of activities without all relevant permits/permissions/approvals including registered servitudes, permits to remove specific vegetation, etc. as well as commencing without implementation of specialist recommendations, including search and rescue, and compliance with EMPr pre-construction activities, can result in penalties, time delays and excessive costs. All stemming from poor planning. Climate change considerations need to be addressed at this stage, and where possible, adaption/mitigation measures found to be feasible must be integrated into the final design/planning during construction, and financial provision must be made where necessary.	No change in the status quo
Nature of impact:	Negative	
Extent and duration of impact:	Local / Short to medium term	
Consequence of impact or risk:	• Non-compliance with the relevant approvals • Penalties or fines to be issued	
Probability of occurrence:	Low	
Degree to which the impact may cause irreplaceable loss of resources:	Low	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:	Time-bound delays to be seen on the implementation of the project.	
Cumulative impact prior to mitigation:	Low	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Medium**	
Degree to which the impact can be avoided:	High (can be avoided)	
Degree to which the impact can be managed:	High (can be managed)	
Degree to which the impact can be mitigated:	High (can be mitigated)	
Proposed mitigation:	Please see the below.	
Residual impacts:	None	
Cumulative impact post mitigation:	No significance	
Significance rating of impact after mitigation (e.g. Low, Medium,	**Low (-)**	**No impact / No significance**

Medium-High, High, or Very-High)		

Mitigation measures:
General:

- Ensure financial allowances are made for the recommended measures, such as vegetation rehabilitation plan and alien invasive management plans, etc.
- Ensure all relevant permits/licenses/approvals are in place and are valid prior to commencing with works.
- Ensure that the Contractor has accepted the approved EMPr and Environmental Authorization (and any other relevant permits/licenses, etc), as a part of their Tender Document, to ensure that they are fully aware of their responsibilities in terms of the implementation of these documents.
- Ensure that the Contractor provides method statements for activities intended to be undertaken, and these are checked and approved by the ECO as well as the Engineer.
- Inform ECO of planned works ahead, so as to ensure inductions are undertaken timeously.
- Involve ECO in selection of site camp location.

Climate Change Considerations including adaption, must be integrated into the final design, and mitigation must be integrated into the construction scope of works, Where necessary, all financial provision must be made:

- Daily assessment of weather conditions should be completed during construction stage, to ensure conditions are viable for labourers to be working outside (ie: temperatures are not excessive).
- Potable water should be available for consumption during construction, to keep labourers hydrated.
- Where possible, Implement rainwater capturing system for temporary storage of water to be utilized for washing tools, etc.
- Request that labour use their own water bottles, to be filled up, rather than drinking from taps.
- Increase fire risk:
    - Position fire safety equipment at all workstations.
    - Establish non-smoking signage within the construction areas, to remind maintenance teams that this activity must be avoided.
    - Smoking must be discouraged on site. If the Contractor allows this activity there must be a designated (marked) area within the site camp, with an appropriate bin to contain discarded cigarettes, with an appropriately heavy cover, only permitted within the site camp where it can be controlled.
    - If security is positioned on site, at night, they must be briefed on fire hazard risks.
    - No uncontrolled fires are allowed.
    - Ensure emergency numbers are readily available with a working cell-phone on site, and if construction teams are split, the foreman responsible for each team is to ensure that he has these emergency numbers, and can contact emergency services immediately.

10.3.1.2 Site establishment and Pre-construction activities

Alternative:	Preferred alternative	No-Go Alternative
Potential impact and risk:	**Site establishment and Pre-construction activities** Poor site establishment can lead to long-term issues on site. Failure to appropriately designate working corridors can result in works exceeding the approved assessed footprint, resulting in non-compliance and potentially penalties and delays.	No change in the status quo
Nature of impact:	Negative	
Extent and duration of impact:	Local and short-medium term	
Consequence of impact or risk:	• Site camp location may create issues and can lead to additional listed activities. • Non-compliance with approved documentation.	
Probability of occurrence:	Low	
Degree to which the impact may cause irreplaceable loss of resources:	Low	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:	Penalties, fines and time delays	
Cumulative impact prior to mitigation:	Medium	
Significance rating of impact prior to	Medium	

Alternative:	Preferred alternative	No-Go Alternative
mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)		
Degree to which the impact can be avoided:	High	
Degree to which the impact can be managed:	High (can be managed)	
Degree to which the impact can be mitigated:	High (can be mitigated)	
Proposed mitigation:	Please see the mitigation measures below.	
Residual impacts:	None	
Cumulative impact post mitigation:	Low	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	**No impact / No significance**

Mitigation measures:

General:

- Inform ECO of planned works ahead of time, so as to ensure inductions are undertaken timeously.
- Involve ECO in selection of site camp location.
- Ensure all labour and sub-contractors undergo environmental inductions.
- Where applicable, ensure flora permits are in place timeously (PNCO only) – allow at least 1 or 2 months before commencement.
- Environmental Awareness and training (EAT) – Ensure all labour are informed and plant operators are aware of risks, issues, dos and don'ts and no-go areas while on site.

Site Camp Establishment:

- Ensure site selected is inspected and approved by ECO.
- Utilize disturbed or transformed areas for site camp establishment.
- Ensure the site camp is positioned on a levelled area and is easily accessible.
- The boundary of site camp should be clearly demarcated and the camp access controlled through the use of a gate or other approved method.
- Ensure access to site is at one point, unless to existing points of entry/exit are identified.
- Ensure access onto site is controlled.
- Designate specific areas for specific purpose, including storage areas, machinery storage areas, parking areas, waste disposal areas, etc.
- Ensure an Environmental File is created and maintained on site that remains on site for the duration of construction, for auditing purposes. This file should contain as a minimum:
  - Copies of audit reports or the date upon which the audit report was submitted to the Competent Authority.
  - Copies of disposal/cleaning slips related to waste disposal at a registered waste disposal site and from company appointed to clean toilets.
  - Copies of purchase orders for rehabilitation material, where rehabilitation has commenced, etc.
  - Copies of all approvals, including: Environmental Authorization, EMPr, and any other license/permit/approval.
  - Incident register.
  - Complaints register.
  - Copies of induction registers.
- Infographics must be available on site in public areas, including information on safety measures, potential harmful fauna (ie. snakes common to the areas, and emergency contact information, including, but not limited to: Snake catchers, Ambulance; Fire Department; the closest hospital, veterinarian (ie: for anti-venom, etc).
- Must contain a spill-kit.
- Clean potable water must be available to workers on site during construction.

- Portable Toilets:
  - Ensure toilets are positioned on levelled areas and are protected from wind and rain that could result in them blowing over and spilling waste contents.
  - Ensure toilets are positioned at least 32m's from any watercourse.
  - Ensure toilets are rented from a registered company, with whom arrangements should be made for cleaning of these toilets on a weekly basis.
  - Disposal slips/cleaning slips from this company must be obtained following every cleaning and must be filed in the Environmental File.
  - Ensure an adequate quantity of toilets are provided at each working area.
- Hazardous substances including oil/fuel etc. should be:
  - Stored in bunded areas, on hardened/impermeable surfaces, where the barrels/drums/containers are protected from the natural elements.
  - Appropriate signage indicating hazardous/flammable materials are stored.
  - A fire extinguisher and contact details for the fire department and other emergency numbers must be positioned in close proximity.
  - May only be decanted/filled on the aforementioned surface.
  - Must be disposed of as hazardous waste, at an appropriately registered facility.

Waste Management:

- Designate areas for temporary waste storage, this area should be:
  - Protected from wind/rain displacement.
  - Should be on a levelled surface.
  - An appropriate number of skips/bins must be made available on site, to accommodate the various types of waste generated, as waste must be separated.
  - Ensure weighted covers are positioned on skips/bins, to ensure that animals cannot get into the bins as well as to avoid waste dispersion.
  - Label bins appropriately.
  - Ensure that the nearest appropriate waste disposal facility is identified and ensure that disposal is undertaken when waste has reached 75% capacity of the bin/skip.
  - Waste containers for general waste and hazardous waste must be disposed in appropriate and clearly marked containers and kept in a designated area/s.
- No waste/excavated soil/ etc. intended to be removed from site may remain on site for more than 90-days.
- Ensure waste receptacles are available where works are being undertaken, this can take the form of black bin bags, etc. however it must:
- Be sufficient to hold the waste without tearing/spilling.
- It must be removed from working area on a daily basis and re-established at the start of every day, when works occurs in that area.
- Request that the foreman responsible for the labour team in a specific area, is responsible for ensuring that this waste receptacle is utilized, removed and established daily.

10.3.2 Construction Phase Impacts

10.3.2.1 Agricultural Potential Impact – Loss of Agricultural Land

Alternative:	Preferred alternative	No-Go Alternative
Potential impact and risk:	**Agricultural Potential Impact – Loss of Agricultural Land** Based on the findings of the Environmental Screening Tool Report, during the construction phase of the proposed cable infrastructure project, there is a potential of impacting upon agricultural resources. However, based on the compliance statement provided by the Agricultural Specialist, there will be no significant impact on the Agricultural resources of the area. This is due to the absence of cultivated land within the footprint of the proposed project site.	No change in the status quo
Nature of impact:	Negative	
Extent and duration of impact:	Site Specific / Short term	
Consequence of impact or risk:	Loss of Agricultural Resources	
Probability of occurrence:	Low	
Degree to which the impact may cause irreplaceable loss of resources:	Low	

Degree to which the impact can be reversed:	Reversible	
Indirect impacts:	None	
Cumulative impact prior to mitigation:	Negligible	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**No Significance**	
Degree to which the impact can be avoided:	High (can be avoided)	
Degree to which the impact can be managed:	High (can be managed)	
Degree to which the impact can be mitigated:	High (can be mitigated)	
Proposed mitigation:	No mitigation measures proposed.	
Residual impacts:	None	
Cumulative impact post mitigation:	No significance	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**No significance**	**No impact / No significance**

10.3.2.2 *Terrestrial Biodiversity Impact - Loss of vegetation*

Alternative:	**Preferred alternative**	**No-Go Alternative**
Potential impact and risk:	**Terrestrial Biodiversity Impact - Loss of vegetation** The proposed cable infrastructure project is located within secondary Cape Flats Dune Strandveld (EN), which has re-established since the disturbance associated with the original power station construction. This vegetation is of Low sensitivity, and is not particularly diverse. Some areas do exhibit a higher quality of vegetation, however, the SEI is considered Low overall.	
Nature of impact:	Negative	No change to the status quo of the site
Extent and duration of impact:	Local / Medium term	
Consequence of impact or risk:	• Loss of vegetation • Loss of Plant Species of Concern	
Probability of occurrence:	Definite	
Degree to which the impact may cause irreplaceable loss of resources:	Low	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:	• Occurrence of erosion • Infestation by alien invasive species	
Cumulative impact prior to mitigation:	Low	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**	
Degree to which the impact can be avoided:	Medium (can be partially avoided)	

Alternative:	Preferred alternative	No-Go Alternative
Degree to which the impact can be managed:	High (can be managed)	
Degree to which the impact can be mitigated:	High (can be mitigated)	
Proposed mitigation:	Please see the mitigation measures below.	
Residual impacts:	None	
Cumulative impact post mitigation:	Low	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**	**No impact / No significance**

Mitigation Measures:

General:

- Inform ECO of planned works ahead, so as to ensure inductions are undertaken timeously.
- A minimum footprint approach is to be followed.
- The construction area including the construction camp is to be cordoned off (through reasonable measures).
- Alien invasive vegetation management around the site is to take place in accordance with the Alien Vegetation Management Programme provided in the Environmental Management Programme.
- The boundary of site camp should be clearly demarcated and the camp access controlled through the use of a gate or other approved method.
- Limit the footprint of the construction activities to the immediate site.
- Designate areas outside of the Area of Investigation provided in the BAR as No-Go Areas.
- Contractors must drive on existing access roads as far as possible to prevent formation of unnecessary tracks for access roads.
- Prohibit temporary storage of building material or soil within areas of natural vegetation falling outside of the Area of Investigation provided in the BAR.

10.3.2.3 *Terrestrial Biodiversity impact – Impact upon potential Species of Conservation Concern*

Alternative:	Preferred alternative	No-Go Alternative
Potential impact and risk:	**Terrestrial Biodiversity impact – Impact upon potential Species of Conservation Concern** A total of 47 plant species of conservation concern were highlighted as potentially occurring on site as part of the screening tool report. However, as part of the Botanical Assessment conducted for the proposed cable infrastructure project, it was confirmed that no SCCs were present on site. The project is located within secondary Cape Flats Dune Strandveld (EN), which has re-established since the disturbance associated with the original power station construction. This vegetation is of Low sensitivity, and is not particularly diverse, and neither does it support any plant Species of Conservation Concern.	
Nature of impact:	Negative	No change to the status quo of the site
Extent and duration of impact:	Site specific / Short term	
Consequence of impact or risk:	• Loss of Plant Species of Concern	
Probability of occurrence:	Low	
Degree to which the impact may cause irreplaceable loss of resources:	Low	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:	None identified	
Cumulative impact prior to mitigation:	Negligible	
Significance rating of impact prior to mitigation (e.g. Low, Medium,	**Low**	

Alternative:	Preferred alternative	No-Go Alternative
Medium-High, High, or Very-High)		
Degree to which the impact can be avoided:	High (can be avoided)	
Degree to which the impact can be managed:	High (can be managed)	
Degree to which the impact can be mitigated:	High (can be mitigated)	
Proposed mitigation:	Please see the mitigation measures below.	
Residual impacts:	None	
Cumulative impact post mitigation:	Low	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**	**No impact / No significance**

Mitigation measures

General:

- A minimum footprint approach is to be followed.
- The construction camp and all areas beyond the Area of Investigation (construction footprint) must be considered no-go and must be cordoned off (through reasonable measures).
- The site camp must be located within the Area of Investigation/project footprint evaluated in this report.
- Alien invasive vegetation management around the site is to take place in accordance with the Alien Vegetation Management Programme provided in the Environmental Management Programme.
- Demarcate and cordon-off (through reasonable means) the construction site boundaries upon site establishment and limit all activities to inside these boundaries.
- Limit the footprint of the construction activities to the immediate site.
- Contractors must drive on existing access roads as far as possible to prevent formation of unnecessary tracks for access roads.
- Prohibit temporary storage of building material or soil within areas of natural vegetation falling outside of the construction footprint.

10.3.2.4 Terrestrial Biodiversity impact – Infestation by Alien invasive plant species

Alternative:	Preferred alternative	No-Go Alternative
Potential impact and risk:	**Terrestrial Biodiversity impact – Infestation by Alien invasive plant species** Due to the clearance of vegetation for the purpose of the establishment of the construction site and working footprint, there is a potential of alien invasive species to colonise during the construction phase of the proposed cable infrastructure project.	No change in the status quo
Nature of impact:	Negative	
Extent and duration of impact:	Site Specific / Short term	
Consequence of impact or risk:	Infestation by Alien Invasive Species	
Probability of occurrence:	Low	
Degree to which the impact may cause irreplaceable loss of resources:	Low	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:	None	
Cumulative impact prior to mitigation:	Low	
Significance rating of impact prior to mitigation (e.g. Low, Medium,	**Low**	

Medium-High, High, or Very-High)		
Degree to which the impact can be avoided:	High (can be avoided)	
Degree to which the impact can be managed:	High (can be managed)	
Degree to which the impact can be mitigated:	High (can be mitigated)	
Proposed mitigation:	Please see the mitigation measures below.	
Residual impacts:	None	
Cumulative impact post mitigation:	No significance	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**	**No impact / No significance**

Mitigation measures:
General:

- Alien invasive vegetation management around the site is to take place in accordance with the Alien Vegetation Management Programme provided in the Environmental Management Programme.
- All mitigation measures relating to alien invasive vegetation as described in the EMPr must be adhered to.
- Rehabilitation must be done incrementally, meaning that as works have completed in a given area, rehabilitation must be pursued directly thereafter, as opposed to at the end of the project.

10.3.2.5 Faunal impact – Loss of Faunal Habitat and Animal SCCs

Alternative:	Preferred alternative	No-Go Alternative
Potential impact and risk:	**Faunal impact – Loss of Faunal Habitat and Animal SCCs** Given that these footprints will be spatially limited to already degraded areas on the outer limits of the shrubland habitat, along with the ability of the resident faunal species to move away from this disturbance, impacts from the construction are expected to be limited in extent and duration during the construction and operational phases of the project, and should not impinge on faunal biodiversity, either on the site or in the surrounding landscape.	No change in the status quo
Nature of impact:	Negative	
Extent and duration of impact:	Site Specific / Short term	
Consequence of impact or risk:	Loss of Faunal habitat and Animal SCCs	
Probability of occurrence:	Low	
Degree to which the impact may cause irreplaceable loss of resources:	Low	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:	None	
Cumulative impact prior to mitigation:	Low	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**	
Degree to which the impact can be avoided:	High (can be avoided)	
Degree to which the impact can be managed:	High (can be managed)	

Alternative:	Preferred alternative	No-Go Alternative
Degree to which the impact can be mitigated:	High (can be mitigated)	
Proposed mitigation:	Please see mitigation measures below.	
Residual impacts:	None	
Cumulative impact post mitigation:	Negligible	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**	**No impact / No significance**

Mitigation measures:
Specialist recommendation:

- Every effort must be made to save and relocate any mammal, reptile, amphibian, bird, or invertebrate that cannot flee of its own accord, encountered during site preparation,
- These animals must be relocated by the Contractors, to a suitable habitat area immediately outside the project footprint, but under no circumstance to an area further away.

General:

- A sweep of the proposed cable infrastructure installation footprint must be done prior to the site establishment in any new work front, in order to ensure that no animals are hurt during site clearance activities.
- Should animals wander onto site, these animals are not to be hunted or killed.
- In the unlikely event of animals accessing the site, the animals must be captured, by the Contractors, and released into the adjoining nature reserve grounds.
- The site is to be always kept clean and tidy so as to not attract the animals to the site.

10.3.2.6 Heritage Resources: Potential Loss of Resources

Alternative:	Preferred alternative	No-Go Alternative
Potential impact and risk:	**Heritage Resources: Potential Loss of Resources** The appointed specialist did not identify any archaeological resources of concern.	
Nature of impact:	Negative	No change to the status quo of the site
Extent and duration of impact:	Site specific / Short term	
Consequence of impact or risk:	• Loss of features of Heritage Significance	
Probability of occurrence:	Low	
Degree to which the impact may cause irreplaceable loss of resources:	Medium-Low	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:	None identified	
Cumulative impact prior to mitigation:	Low	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Medium-Low**	
Degree to which the impact can be avoided:	High (can be avoided)	
Degree to which the impact can be managed:	High (can be managed)	
Degree to which the impact can be mitigated:	High (can be mitigated)	
Proposed mitigation:	Please see the mitigation measures below.	

Alternative:	Preferred alternative	No-Go Alternative
Residual impacts:	None	
Cumulative impact post mitigation:	Low	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**No Significance**	**No impact / No significance**

Mitigation Measures:
General:

- A minimum footprint approach is to be followed.
- The construction area including the construction camp is to be cordoned off (through reasonable measures).

10.3.2.7 *Palaeontological Resources: Potential Loss of Resources*

Alternative:	Preferred alternative	No-Go Alternative
Potential impact and risk:	**Palaeontological Resources: Potential Loss of Resources** According to the Notice of Intent Submitted to Heritage Western Cape, the upgrading of services will involve the re-excavation of disturbed ground in the existing infrastructure trenches. Nevertheless, ex-situ fossils and archaeological material may be present in the disturbed sediments and "new ground" are also likely to be excavated in places. At the time of the compilation of this report, on-going monitoring of excavations for the concrete water tanks, and water intake pipeline (DFFE Ref: 14/12/16/3/3/1/2908) have so far not revealed any archaeological or fossil heritage resources or deposits (Kaplan 2025 in prep), due to the disturbances mentioned above.	No change to the status quo of the site
Nature of impact:	Negative	
Extent and duration of impact:	Site specific / Short term	
Consequence of impact or risk:	Loss of resources of palaeontological significance	
Probability of occurrence:	Low	
Degree to which the impact may cause irreplaceable loss of resources:	Low	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:	None identified	
Cumulative impact prior to mitigation:	Medium	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Medium-Low**	
Degree to which the impact can be avoided:	High (can be avoided)	
Degree to which the impact can be managed:	High (can be managed)	
Degree to which the impact can be mitigated:	High (can be mitigated)	
Proposed mitigation:	Specialist recommendation (as per the NID): • A Chance Find Protocol for Fossils must be included in the EMPr.	
Residual impacts:	None	

Alternative:	Preferred alternative	No-Go Alternative
Cumulative impact post mitigation:	Low	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low (-)**	**No impact / No significance**

10.3.2.8 General impacts: Contamination of soil and ground water

Alternative:	Preferred alternative	No-Go Alternative
Potential impact and risk:	**General impacts: Contamination of soil and ground water** As part of the construction related activities, unsatisfactory handling of hazardous substances (cement, hydraulic oils etc) could lead to the contamination of the soil and groundwater.	No change to the status quo of the site
Nature of impact:	Negative	
Extent and duration of impact:	Local / Medium term	
Consequence of impact or risk:	Contamination of ground water resources	
Probability of occurrence:	Low	
Degree to which the impact may cause irreplaceable loss of resources:	Low	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:	None identified	
Cumulative impact prior to mitigation:	Medium	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Medium**	
Degree to which the impact can be avoided:	High (can be avoided)	
Degree to which the impact can be managed:	High (can be managed)	
Degree to which the impact can be mitigated:	Medium (can be partly mitigated)	
Proposed mitigation:	Please see the mitigation measures below.	
Residual impacts:	None	
Cumulative impact post mitigation:	Low	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low (-)**	**No impact / No significance**

Mitigation measures

General:

- Spill kits must be available on site at all times.
- Where fuelling does occur on site, a drip tray must be used to contain any spilled fuel.
- All construction vehicles must be equipped with drip trays at all times.
- No vehicle maintenance activities may occur on site for the duration of the construction phase.
- Where emergency maintenance is required, such maintenance must be communicated with the independent Environmental Control Officer appointed to oversee the alignment of the construction works with the applicable environmental legislation.

10.3.2.9 General nuisance: Noise, dust and visual impact

Potential impact and risk:	**General nuisance: Noise, dust and visual impact** This impact will occur as a result of increased vehicular movement during construction, as well as poor housekeeping practices creating unsightly views of the construction activities.	No change to the status quo of the site
Nature of impact:	Negative	
Extent and duration of impact:	Local / Medium term	
Consequence of impact or risk:	• Poor visibility due to the dispersal of dust • Increased noise levels during work hours	
Probability of occurrence:	Low	
Degree to which the impact may cause irreplaceable loss of resources:	Low	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:	None identified	
Cumulative impact prior to mitigation:	Medium	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Medium**	
Degree to which the impact can be avoided:	Medium (can be partially avoided)	
Degree to which the impact can be managed:	High (can be managed)	
Degree to which the impact can be mitigated:	High (can be mitigated)	
Proposed mitigation:	Please see the mitigation measures below.	
Residual impacts:	None	
Cumulative impact post mitigation:	Low	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low (-)**	**No impact / No significance**

Mitigation Measures:

Dust:

- Dust suppression methods, such as non-potable water spraying must be used during the construction phase of the proposed cable infrastructure upgrade project.
- Vehicular speed must be controlled at all times with no indiscriminatory driving permitted by any construction vehicles/workers.

Noise:

- All construction vehicles must be equipped with muffled reverse sirens (which are to the standard of the Occupational Health & Safety Act (Act 85 of 1993).
- No constructions activities are permitted between 17:00 and 7:00 unless previously agreed upon between the Contracting team and the KNPS.
- Construction workers are to remain within the designated site boundary at all time.
- All equipment to be adequately maintained and kept in good working order to reduce noise.

- Noise levels must comply with the SANS 100103 – 0994 (recommended noise levels), as well as the Western Cape Noise Control Regulations (Provincial Notice 200/2013) of 20 June 2013.
- All mitigation measures relating to noise control as described in the EMPr must be adhered to.

General housekeeping and visual impacts:

- A clean site policy must be adopted at all time during the construction phase.
- Where possible, storage and disposal of waste must take place in a sustainable manner, where clearly marked recycle bins must be provided to workers at the site camp.
- The visual impact experienced during the construction phase would be relatively short term and be mitigated by good housekeeping and regular removal of rubble on the site.
- The mitigations within the EMPr must be adhered to in order to minimize the visual impacts of construction phase activities.
- An ECO must be appointed. The EMPr must be enforced and monitored by the ECO.
- The site must be kept clean and tidy at all times.
- No stockpiles may exceed 2m in height.

10.3.3 Post-construction / Rehabilitation Phase Impacts

10.3.3.1 Terrestrial Biodiversity impact – Infestation by Alien invasive plant species

Alternative:	Preferred alternative	No-Go Alternative
Potential impact and risk:	**Terrestrial Biodiversity impact – Infestation by Alien invasive plant species** Due to the clearance of vegetation for the purpose of the establishment of the construction site and working footprint, there is a potential of alien invasive species to colonise the unrehabilitated areas should the cleared area not be managed appropriately.	No change in the status quo
Nature of impact:	Negative	
Extent and duration of impact:	Site Specific / Short term	
Consequence of impact or risk:	Infestation by alien invasive species	
Probability of occurrence:	Low	
Degree to which the impact may cause irreplaceable loss of resources:	Low	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:	None	
Cumulative impact prior to mitigation:	Medium	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Medium**	
Degree to which the impact can be avoided:	High (can be avoided)	
Degree to which the impact can be managed:	High (can be managed)	
Degree to which the impact can be mitigated:	High (can be mitigated)	
Proposed mitigation:	Please see the mitigation measures below.	
Residual impacts:	None	
Cumulative impact post mitigation:	No significance	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**	**No impact / No significance**

Mitigation Measures

General:

- Alien invasive vegetation management around the site is to take place in accordance with the Alien Vegetation Management Programme provided in the Environmental Management Programme.
- The Vegetation Rehabilitation Plan included in the Environmental Management Programme must be implemented on site until successful rehabilitation has been confirmed by the ECO.
- All mitigation measures relating to alien invasive vegetation as described in the EMPr must be adhered to.
- Rehabilitation must be done incrementally, meaning that as works have completed in a given area, rehabilitation must be pursued directly thereafter, as opposed to at the end of the project.

10.3.3.2 Terrestrial Biodiversity impact – Habitat fragmentation

Potential impact and risk:	**Terrestrial Biodiversity impact – Habitat fragmentation** Habitat fragmentation could potentially be seen during the operational phase for as long as rehabilitation of the site has not taken place. Operational phase impacts include further loss of current rather low levels ecological connectivity across the site and associated habitat fragmentation.	No change in the status quo
Nature of impact:	Negative	
Extent and duration of impact:	Site Specific / Short term	
Consequence of impact or risk:	Habitat fragmentation due to the lack of revegetation on site.	
Probability of occurrence:	Low	
Degree to which the impact may cause irreplaceable loss of resources:	Low	
Degree to which the impact can be reversed:	Reversible	
Indirect impacts:	None	
Cumulative impact prior to mitigation:	Low	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**	
Degree to which the impact can be avoided:	High (can be avoided)	
Degree to which the impact can be managed:	High (can be managed)	
Degree to which the impact can be mitigated:	High (can be mitigated)	
Proposed mitigation:	Please see the mitigation measures below.	
Residual impacts:	None	
Cumulative impact post mitigation:	No significance	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**	**No impact / No significance**

Mitigation Measures

General:

- The Vegetation Rehabilitation Plan included in the Environmental Management Programme must be implemented on site until successful rehabilitation has been confirmed by the ECO.

10.3.3.3 Socio-Economic impact – Benefits to ensuring electrical connectivity within KNPS.

Potential impact and risk:	**Socio-Economic impact – Benefits to ensuring electrical connectivity within KNPS.** The need for the project is rooted in the need for reliable internal infrastructure (within the different portions of the KNPS). Due to the age of the existing infrastructure, the integrity and reliability of the existing buried infrastructure has been compromised as the infrastructure have not been upgraded to the current engineering standards and specifications. Koeberg Nuclear Power Station supplies 4.4 % (Total output capacity of 1860 MW[2]) of the Nation's electricity.	
Nature of impact:	Positive	Negative
Extent and duration of impact:	Regional / Permanent	Regional/Permanent
Consequence of impact or risk:	• Lessening of interrupted supply of electricity during emergency event	• Risk of interrupted supply of electricity for extended periods of times.
Probability of occurrence:	Low	Low-Medium
Degree to which the impact may cause irreplaceable loss of resources:	N/A (Positive impact)	High
Degree to which the impact can be reversed:	N/A (Positive impact)	Reversible
Indirect impacts:	N/A (Positive impact)	• Increased occurrences of load shedding due to increased risk of internal connectivity interruptions due to degrade cable infrastructure. • Further impact on the economic situation in South Africa, as the facilities contributes to the National Grid.
Cumulative impact prior to mitigation:	High	Very High
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Very High**	**Very High**
Degree to which the impact can be avoided:	N/A (Positive impact)	Low (cannot be avoided in the case of emergency)
Degree to which the impact can be managed:	N/A (Positive impact)	Low (cannot be managed)
Degree to which the impact can be mitigated:	N/A (Positive impact)	Low (cannot be mitigated
Proposed mitigation/enhancement:	No mitigations or enhancements proposed.	Mitigation toward this impact is seen through the implementation (approval) of the proposal.
Residual impacts:	None	• Increased occurrences of load shedding in the event of an emergency. • Further impact on the economic situation in South Africa, as the facilities contributes to the National Grid.
Cumulative impact post mitigation:	High	Very High
Significance rating of impact after mitigation (e.g. Low, Medium,	**Very High**	**Very High**

[2] G. Dladla through the National Nuclear Regulator. *Electricity Generation Through the Koeberg Nuclear Power Station of Eskom in South Africa.*

Medium-High, High, or Very-High)		

10.4 Cumulative Impacts

Cumulative impacts in relation to an activity are defined in the EIA Regulations as meaning "*the impact of an activity that in itself may not be significant, but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area*".

- **General impact – Visual impact** of the additional infrastructure on site, considering the project is located within a nature reserve. Considering the portion within which the KNPS is located within the property has been demarcated for the purpose of the High-Risk Industry activities and that all activities will remain in the beforementioned property, **this impact will be low**. To provide further motivation towards the significance rating, it is to be noted that the site has been cleared previously (for the purpose of the establishment and installation of the infrastructure to be upgraded). and the proposed activities will not extrude above the existing infrastructure on site. The activities will not be in line of site of the public.

Therefore, based on the findings of the specialists and the motivations provided above, the cumulative impacts of the proposed activities are anticipated to be **low**.

As seen in Appendix B of the BAR, a number of projects have been previously approved within the area allocated towards the Risk Industry Zoning (and excluded from the provincial and local environmental strategic planning areas (i.e. the Koeberg Nature Reserve).

The total footprint of the study area is approximately 11.5 ha, 5.4 ha of which has already been transformed by approved infrastructural components (including the existing main power plant area, a portion of the Temporary Infrastructure Storage Facility, the Original Steam Generator Interim Storage Facility, and the constructed portion of the approved hardened water reservoir). Therefore, approximately 6.1 ha (including the area between the inner and outer perimeter boundaries (approximately 1.9 ha) that has been cleared, allowed to partially revegetate and has a vehicle track within it), is considered indigenous vegetation to be cleared for the proposed works.

Additionally, the KNPS is isolated from all surrounding neighbourhoods and will therefore further support that limited cumulative impact is anticipated.

10.5 Evaluation of the Mitigation Hierarchy in light of the proposed cable infrastructure project

The impact tables in the sections above indicate the potential environmental impacts and risks identified for the project, including the nature, significance, consequence, extent, duration and probability of impact, the degree of to which the impact can be reversed, and an indication as to whether to impact would cause irreplaceable loss of the resource or whether it would be able to be avoided, managed, or mitigated.

The image below provides a visual representation of the mitigation hierarchy. Whereas the table below provides a summary of the evaluation thereof in relation to the proposed cable infrastructure project.

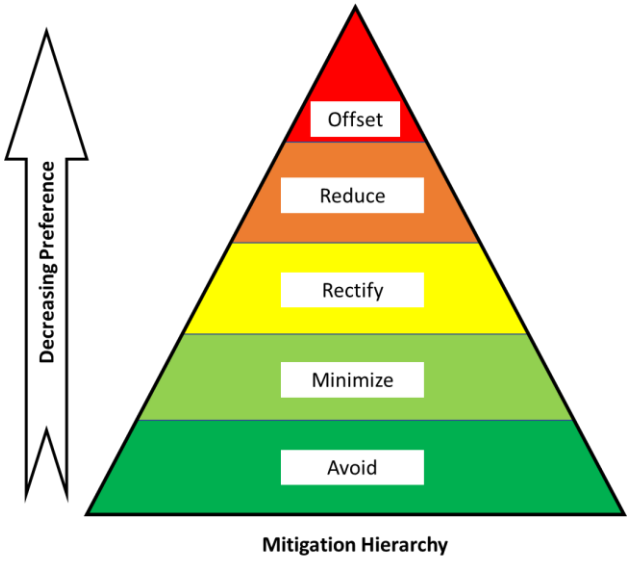

Figure 10-1. Mitigation Hierarchy.

Table 10-2. Mitigation hierarchy in relation to the proposed cable infrastructure project.

Hierarchy level		Description in relation to the proposal
1	Avoid	The proposed cable infrastructure project will be located within the existing KNPS development area. According to the specialists, the anticipated impact of the project will be cumulatively low, as the sensitive features in the landscape would be avoided.
2	Minimise impacts	The recommended mitigation measures of the various specialists reports in addition to the mitigation measures provided in the EMPr will lead to the minimisation of the impacts of the construction phase.
3	Rectify	The rehabilitation measures in the EMPr are provided to return the impacted areas back to a functional state, through the implementation of a Vegetation Rehabilitation and Alien Invasive Management Plan, respectively. The Applicant will be responsible for rectifying any non-compliances with the conditions of the EA and EMPr.
4	Reduce	It is acknowledged that the proposed cable infrastructure project is located within the demarcated Koeberg Nature Reserve (promulgated in terms of the NEMPAA), albeit earmarked for the KNPS. All activities identified in the BAR will remain within the boundaries of the KNPS, where all areas beyond the Area of Investigation will be considered No-Go areas.
5	Offset	In June 2023, the Department of Forestry, Fisheries and Environment (DFFE) promulgated the National Biodiversity Offset Guidelines in terms of the National Environmental Management Act. 1998, as amended (Act No. 107 of 1992). Based on the National Biodiversity Offset Guidelines, 2023 (GN 3569 of 2023), an offset is required where the residual impacts are Medium or High. Based on the findings of the specialist assessments (specifically those relating to the ecosystems identified, as per the definition of the beforementioned guidelines), the following impact ratings were awarded, after the implementation of mitigation measures: • Terrestrial biodiversity and plant assessment: o Impact during construction phase: Low o Impact during post-construction / rehabilitation phase: Low • Aquatic biodiversity and plant assessment: o Cumulative impact during construction phase: Low

		○ Cumulative impact during post-construction / rehabilitation phase: Low • Animal Species assessment: ○ Impact during construction phase: Low • Agricultural assessment: Insignificant Therefore, based on the above, all impacts on the biodiversity component of the proposed infrastructure project can be mitigated to be lower than the threshold necessitating a biodiversity offset. Hence, no offset will be required for the proposed project.

11. ENVIRONMENTAL IMPACT STATEMENT

11.1 Summary of Key Findings of Impact Assessment

The following conclusions can be drawn from the impact assessment findings as shown in the impact tables:

- The operational phase of the proposed cable infrastructure project will see limited environmental impacts with the most significant impacts to be seen through and the impacts which would arise from negligent construction site management.
- The impact on the terrestrial biodiversity integrity of the site can be mitigated through the implementation of the appropriate rehabilitation and management plans.
- All impacts of the construction phase will be Low following the implementation of appropriate mitigation measures.

The positive impacts of the proposed cable infrastructure project are deeply rooted in the socio-economic and environmental benefit of improved electrical infrastructure. On a National scale, the positive impact of having reliable electrical infrastructure within the KNPS site outweighs the potential negative impacts of the proposed cable infrastructure installation.

11.1.1 Summary of Construction Phase after Mitigation

The potential impacts identified during the construction of the proposed cable infrastructure project have been tabulated in Table 11-1. Through the implementation of the appropriate intervention measures, all potential negative impacts can be mitigated to a Low to Negligible significance.

Table 11-1. Summary of impacts during the Construction Phase of the proposed cable infrastructure project.

Impact	Nature	Significance Without Mitigation	Significance with mitigation	No-Go Alternative with mitigation
Construction Phase				
Agricultural Potential Impact – Loss of Agricultural Land	Negative	No significance	No significance	No impact
Terrestrial Biodiversity Impact - Loss of vegetation	Negative	Low	Low	
Terrestrial Biodiversity impact – Impact upon potential Species of Conservation Concern	Negative	Low	Low	
Terrestrial Biodiversity impact – Infestation by Alien invasive plant species	Negative	Low	Low	
Faunal impact – Loss of Faunal Habitat and Animal SCCs	Negative	Low	Low	
Heritage Resources: Potential Loss of Resources	Negative	Low	No significance	
Palaeontological Resources: Potential Loss of Resources	Negative	Low	Low	
General impacts: Contamination of soil and ground water	Negative	Medium	Low	
General nuisance: Noise, dust and visual impact	Negative	Medium	Low	

11.1.2 Summary of Post-Construction Rehabilitation Phase after Mitigation

Table 11-2. Summary of impacts during the Post-Construction / Operational phase of the proposed cable infrastructure project.

Impact	Nature	Significance Without Mitigation	Significance with mitigation	No-Go Alternative with mitigation
Post-Construction Rehabilitation Phase				
Terrestrial Biodiversity impact – Infestation by Alien invasive plant species	Negative	Medium	Low	No impact
Terrestrial Biodiversity Impact – Habitat Fragmentation	Negative	Medium	Low	No impact
Socio-Economic impact – Benefits of the improved infrastructure	Positive	**High**	**High**	**Very High (-)**

11.2 Recommendations by the various professionals

11.2.1 Recommendations of the EAP

- All mitigation measures described in this BAR and the EMPr (attached as Appendix I of this report) must be implemented during the construction, and where applicable, post-construction phase.
- An Independent Environmental Control Officer (ECO) must be appointed to oversee the implementation of the EMPr.
    - Due to the Low sensitivity of the proposed project site, the ECO is to do monthly site visits; and
    - Monthly ECO Reports must be compiled and submitted to the Compliance Unit of the Department.
- All areas outside of the proposed project footprint disturbed during the construction phase must be rehabilitated in order to prevent alien invasive infestation.
- Alien invasive species management must occur in line with a management programme (as attached to the EMPr).

11.2.2 Heritage Specialist Recommendations

- A Chance of Find Protocol must be included as an appendix to the EMPr.

11.2.3 Animal Species Specialist

- Every effort must be made to save and relocate any mammal, reptile, amphibian, bird, or invertebrate that cannot flee of its own accord, encountered during site preparation (i.e., to avoid and minimise the direct mortality of faunal species).
- These animals must be relocated by the Contractors, to a suitable habitat area immediately outside the project footprint, but under no circumstance to an area further away.

No specific recommendations were made by the Agricultural, Terrestrial Biodiversity & Plant, and Aquatic Biodiversity Specialists, respectively.

11.3 EAP's Reasoned Opinion regarding the Environmental Impact of the Proposed Cable Infrastructure Project

Eskom Holdings SOC Ltd proposes the unearthing and upgrading of old cable infrastructure in a specifical area within the perimeters of the Koeberg Nuclear Power Station on the Farm Duynefontyn 1552, Melkbosstrand.

The following assessments were undertaken for the purpose of evaluating the impact of the proposed cable infrastructure project on the environment:

- Animal Species Compliance Statement: No impact on any animal SCCs
- Aquatic Biodiversity Compliance Statement: No aquatic resources have been identified within the proposed project site. The proposed cable infrastructure project will be located within the 500 m Regulatory area of two aquatic features located towards the south-east of the proposed project.
- Terrestrial Biodiversity and Plant Assessment: No Plant species SCCs were identified on site and the vegetation was considered to be of medium importance (secondary Cape Flat Dune Strandveld vegetation). The impact on the terrestrial biodiversity resources were determined to be low with mitigation.
- Agricultural Compliance Statement: There will no impacts on Agricultural resources.
- Cultural Heritage and Palaeontological inputs: Limited to No impact on Cultural Heritage resources are expected and even though the screening tool indicated that the footprint of the proposed cable infrastructure project is located in an area considered as Very Highly sensitive. Following the excavation monitoring work undertaken for as part of the construction of the Reservoir Infrastructure, it was concluded that the impact on the palaeontological resources would be low.

Figure 11-1 below provides the sensitivity overlay of the proposed cable infrastructure project with all of the sensitive features identified for the proposed cable infrastructure project. Based on the findings of the various specialist studies undertaken, it can be concluded that the project, as described in Section 4.2, with the coordinates detailed in Section 4.1 is the preferred alternative for the cable infrastructure project as proposed.

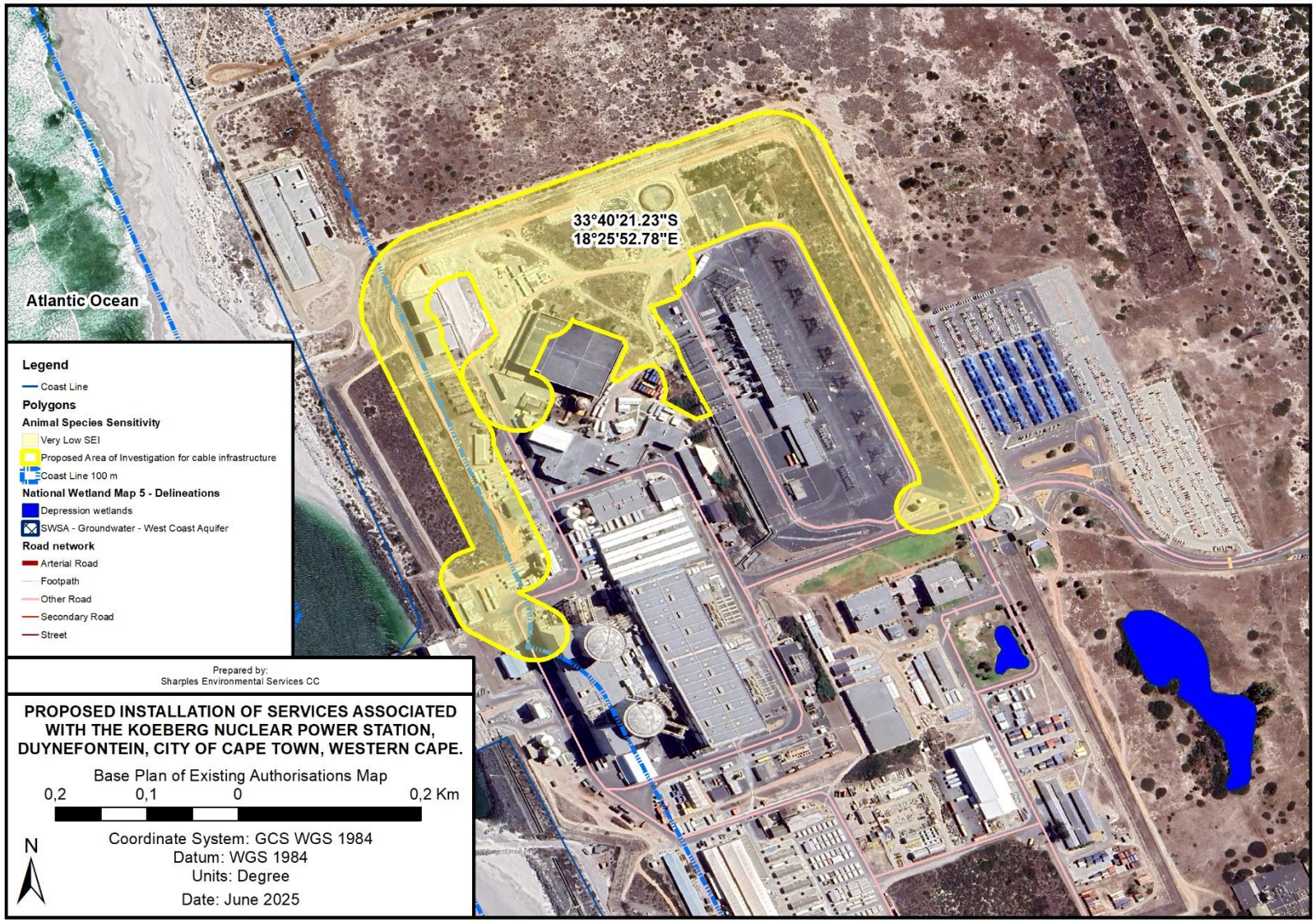

Figure 11-1. Combined sensitivity map of the area surveyed for the proposed infrastructure development.

Based on the impact assessment undertaken (evaluating the significance, extent, duration and the probability of the impacts), it was found that the proposed cable infrastructure project would have an overall low impact on the immediate receiving environment. Whereas the potential positive impacts (socio-economic) that would arise should the proposed project not be allowed to continue would be seen on both a regional and national scale. The cumulative impacts of the proposed cable infrastructure project were determined to be low and would be exercised only on a site-specific scale (therefore would have a limited extent).

The need and desirability of the proposed cable infrastructure project is deeply rooted in prevention of the socio-economic impact associated with the failure to provide the Country with much need electricity security provided due to the continued operations the KNPS.

The public participation process for the proposed cable infrastructure project will be undertaken in accordance with the requirements of Regulation 40 and 41 of the EIA Regulations of 2014, as amended (GNR 326 of 2017; GNR 517 of 2021).

It is hereby concluded that the EAP is of the opinion that the proposed cable infrastructure project should be granted Environmental Authorisation as the impacts identified for the project will be Low to Insignificant, as confirmed by the respective specialists. Therefore, should the Environmental Management Programme (including all of the recommendations of the appointed specialists) be adhered to, the impacts of the proposed cable infrastructure project on the environment would be considered to be marginal.

As no operational activities (in terms of the triggered activities listed in Section 2.5) will be applicable to the proposed cable infrastructure project, it is recommended that the validity period of the Environmental Authorisation, if granted, be twenty (20) years from the date of the authorisation. Therefore, making allowance for future works of a similar nature.

12. REFERENCES

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