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# 4. APPROACH TO THE EIA PROCESS AND PUBLIC PARTICIPATION

This chapter gives particular attention to the legal context and guidelines that apply to this Environmental Impact Assessment (EIA), and the steps in the Public Participation Process of the Scoping Phase of the EIA (in accordance with Regulations 41, 42, 43 and 44 of GN R326 of the 2014 NEMA EIA Regulations, as amended) and the schedule for the Scoping and EIA Process.

# 4.1 Legislation, Policies and Guidelines Pertinent to this EIA

The scope and content of this Draft Scoping Report has been informed by the main legislation, policies, guidelines and information series documents described in this section. Additional information on applicable legislation is provided in the Scoping Level Specialist Assessments included in Appendix G of this Draft Scoping Report.

#### 4.1.1 National Legislation

# 4.1.1.1 The Constitution of the Republic of South Africa (Act 108 of 1996)

The Constitution, which is the supreme law of the Republic of South Africa, provides the legal framework for legislation regulating environmental management in general, against the backdrop of fundamental human rights. Section 24 of the Constitution states that:

- "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."

Section 24 of the Bill of Rights therefore guarantees the people of South Africa the right to an environment that is not detrimental to human health or well-being, and specifically imposes a duty on the State to promulgate legislation and take other steps that ensure that the right is upheld and that, among other things, ecological degradation and pollution are prevented.

In support of the above rights, the environmental management objectives of the proposed project are to protect ecologically sensitive areas and support sustainable development and the use of natural resources, whilst promoting justifiable socio-economic development in the towns nearest to the study area.

# 4.1.1.2 NEMA and EIA Regulations published on 8 December 2014

Chapter 1, Section 2 of the National Environmental Management Act (Act 107 of 1998, as amended) (NEMA) sets out several principles to give guidance to developers, private landowners, members of the public and authorities. The proclamation of the NEMA gives expression to an overarching environmental law. Various mechanisms, such as cooperative environmental governance, compliance and noncompliance, enforcement, and regulating government and business impacts on the environment, underpin NEMA. NEMA, as the primary environmental legislation, is complemented by several sectoral laws governing marine living resources, mining, forestry, biodiversity, protected areas, pollution, air quality, waste and integrated coastal management. Principle number 3 determines that a development must be socially, environmentally and economically sustainable. Principle Number 4(a) states that all relevant factors must be considered, inter alia i) that the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied; ii) that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied; vi) that the development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised; and viii) that negative impacts on the environment and on peoples' environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.

Section 24 (1) of the NEMA, as amended states that "In order to give effect to the general objectives of integrated environmental management laid down in this Chapter, the potential impact on the environment of listed activities must be considered, investigated, assessed and reported to the Competent Authority charged by this Act with granting the relevant EA". The reference to "listed activities" in Section 24 (1) of NEMA relates to the regulations promulgated in Government Notice (GN) R982, R983, R984 and R985 in Government Gazette 38282, dated 4 December 2014, which came into effect on 8 December 2014. These were amended in April 2017, specifically promulgated in GN R326, R327, R325 and R324 in Government Gazette 40772, dated 7 April 2017. GN R326 contains the regulations for the Environmental Assessment Process. GN R327 and GN R324 include listed activities that trigger the need for a Basic Assessment (BA) Process, whereas GN R325 includes listed activities that trigger the need for a full Scoping and EIA Process.

The 2014 NEMA EIA Regulations (as amended) were further amended in Government Gazette 41766, GN 706 on 13 July 20218; and in Government Gazette 44701, GN R517 on 11 June 2021. Based on the transitional arrangements, these 11 June 2021 amendments apply to the proposed project as the Applications for Environmental Authorisation (EA) were not submitted at the time GN R517 took effect. The relevant amendments have been taken into consideration in this Scoping and EIA Process.

In terms of the NEMA and the 2014 NEMA EIA Regulations (as amended), a Scoping and EIA Process is required for the proposed development of the Vhuvhili SEF and associated infrastructure. Refer to Section 4.2 of this chapter for additional information on the 2014 NEMA EIA Regulations (as amended).

# 4.1.1.3 Government Notice (GN) 960 (published 5 July 2019)

GN 960 was published on 5 July 2019 and came into effect for compulsory use of the National Web Based Environmental Screening Tool (hereafter referred to as the Screening Tool) from 4 October 2019. The notice outlines the requirement to submit a report generated by the Screening Tool, in terms of Section 24(5)(h) of the NEMA and Regulation 16(1)(b)(v) of the 2014 NEMA EIA Regulations, as amended, when

submitting an Application for EA in terms of Regulations 19 and 21 of the 2014 NEMA EIA Regulations, as amended. As such, the Application for EA for the proposed Vhuvhili SEF has been run through the Screening Tool, and the associated report generated and attached to the combined Application for EA, which is being submitted to the Mpumalanga DARDLEA with the Draft Scoping Report.

# 4.1.1.4 Government Notice (GN) 320 (20 March 2020)

GN 320 prescribes the general requirements for undertaking site sensitivity verification and protocols for the assessment and minimum report content requirements for identified environmental impacts for environmental themes in terms of sections 24(5)(a) and (h) and 44 of NEMA, when applying for EA.

The Specialist Assessments undertaken as part of this Scoping and EIA Process will comply with GN 320, where applicable, specifically Agriculture, Terrestrial Biodiversity and Species, and Aquatic Biodiversity. Some of the remaining specialist assessments will comply with Appendix 6 of the 2014 NEMA EIA Regulations (as amended), and where relevant, Part A of GN 320 which contains site sensitivity verification requirements where a Specialist Assessment is required but no specific assessment protocol has been prescribed. This specifically applies to the Visual; Heritage (Archaeology and Cultural Heritage); Palaeontology; Socio-Economic and Traffic Assessments. Some of the specialist assessments will comply with the Assessment Protocols published in GN R1150 on 30 October 2020, specifically Terrestrial Biodiversity and Species and Avifauna (as described below). The Battery Energy Storage System High Level Safety, Health and Environment Risk Assessment will serve as a technical report, and the aforementioned legislation will thus not be applicable.

The site sensitivity verifications for Civil Aviation and Defence, as well as the Compliance Statements, should they be required, will also comply with GN 320. Additional detail on Civil Aviation and Defence will be provided in the EIA Phase. The protocols were enforced within a period of 50 days of publication of the notice i.e. on 9 May 2020.

# 4.1.1.5 Government Notice (GN) 1150 (30 October 2020)

GN 1150 prescribes procedures and protocols in respect of specific environmental themes for the assessment of, as well as the minimum criteria for reporting on identified environmental themes in terms of sections 24(5)(a) and (h) and 44 of the NEMA, when applying for EA. GN 1150 includes a protocol for the specialist assessment and minimum report content requirements for environmental impacts on a) terrestrial animal species and b) terrestrial plant species. The requirements of these protocols apply from the date of publication (i.e. from 30 October 2020), except where the Project Applicant provides proof to the Competent Authority that the specialist assessment affected by these protocols had been commissioned prior to the date of publication of these protocols in the Government Gazette, in which case Appendix 6 of the 2014 NEMA EIA Regulations (as amended) will apply to such applications.

As confirmed with the Mpumalanga DARDLEA, one combined report was provided to address the Terrestrial Biodiversity and Species and the Terrestrial Plant Species Protocols (please refer to Appendix G.2). This report also addressed faunal species and includes a Site Sensitivity Verification report for the Terrestrial Animal Species Themes.

However, the Avifauna specialist on the specialist team conducted a Terrestrial Animal Species Assessment based on the Terrestrial Animal Species Protocols (please refer to Appendix G.4).

#### 4.1.1.6 National Environmental Management: Biodiversity Act (Act 10 of 2004)

The National Environmental Management: Biodiversity Act (Act 10 of 2004, as amended) (NEMBA) provides for "the management and conservation of South Africa's biodiversity within the framework of the NEMA, the protection of species and ecosystems that warrant national protection, and the use of indigenous biological resources in a sustainable manner, amongst other provisions". The Act states that the state is the custodian of South Africa's biological diversity and is committed to respect, protect, promote and fulfil the constitutional rights of its citizens.

Overall, the NEMBA focuses on the protection of national biodiversity through the regulation of activities that may affect biodiversity including habitat disturbance, culture of and trade in organisms, both exotic and indigenous. Lists of threatened ecosystems (Sections 52 (1) (a)), threatened and protected species (Sections 56 (1)), and alien invasive organisms (Section 97 (1)) have been published and maintained in terms of NEMBA.

Chapter 1 sets out the objectives of the Act, and they are aligned with the objectives of the Convention on Biological Diversity, which are the conservation of biodiversity, the sustainable use of its components, and the fair and equitable sharing of the benefits of the use of genetic resources. The Act also gives effect to CITES, the Ramsar Convention, and the Bonn Convention on Migratory Species of Wild Animals. The State is endowed with the trusteeship of biodiversity and has the responsibility to manage, conserve and sustain the biodiversity of South Africa.

This Act therefore serves to control the disturbance and land utilisation within certain habitats, as well as the planting and control of certain exotic species. Effective disturbance and removal of threatened or protected species encountered on or around the sites, will require specific permission from the applicable authorities.

Furthermore, NEMBA states that the loss of biodiversity through habitat loss, degradation or fragmentation must be avoided, minimised or remedied. The loss of biodiversity includes *inter alia* the loss of endangered, threatened or protected plant and animal species.

Chapter 5 of NEMBA (Sections 73 to 75) regulates activities involving invasive species, and lists duty of care as follows:

- the landowner/land user must take steps to control and eradicate the invasive species and prevent their spread, which includes targeting offspring, propagating material and regrowth, in order to prevent the production of offspring, formation of seed, regeneration or re-establishment;
- take all required steps to prevent or minimise harm to biodiversity; and
- ensure that actions taken to control/eradicate invasive species must be executed with caution and in a manner that may cause the least possible harm to biodiversity and damage to the environment.

# 4.1.1.6.1 <u>Threatened Ecosystems</u>

Government Gazette 34809, GN 1002, published on 9 December 2011 in terms of Section 52 (1) (a) of the NEMBA, provides a list of threatened terrestrial ecosystems categorised as Critically Endangered (CR), Endangered (EN), Vulnerable (VU) and Protected. The recent 2018 National Biodiversity Assessment (NBA) (SANBI, 2018) includes the updated extent and status of threatened ecosystems, although not yet formally adopted under the NEMBA.

The list of threatened ecosystems includes 225 threatened ecosystems based on vegetation types present within these ecosystems. Should a project fall within a listed vegetation type or ecosystem that is listed, actions in terms of NEMBA are triggered. In addition, Listing Notice 3 (GN R324) of the 2014 NEMA EIA Regulations (as amended) includes Listed Activity 12, for the clearance of an area of 300 m² or more of indigenous vegetation in Mpumalanga, specifically within any CR or EN 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 CR in the National Spatial Biodiversity Assessment 2004.

As explained in the Terrestrial Biodiversity and Species Scoping Level Assessment (Appendix G.2 of this Draft Scoping Report), the vegetation within the study area is located within the Soweto Highveld Grassland (Gm8) vegetation type (SANBI 2006-2018). This vegetation type covers 14 513 km² of Mpumalanga and Gauteng (and to a very small extent also in the neighbouring Free State and North-West provinces) (Mucina & Rutherford 2006). The ecosystem / vegetation type is classified as having a Vulnerable conservation status because almost half of it has been transformed mostly by cultivation, plantations, mining and urbanisation. Therefore, GN 1002 applies.

#### 4.1.1.6.2 <u>Threatened and Protected Species (ToPS)</u>

The 2007 Threatened or Protected Species (ToPs) Regulations of the NEMBA declares species of high conservation value, national importance or that are considered threatened and in need of protection. Furthermore, the regulations provide for the prohibition of specific restricted activities involving specific listed threatened or protected species.

The list of CR, EN, VU or Protected species was published in Government Gazette 29657, GN R151 on 23 February 2007 in terms of Section 56 (1) of the NEMBA. The list was further amended in Government Gazette 30568, GN R1187 on 14 December 2007, as well as in Government Gazette 43386, GN R627 of 3 June 2020. Should a project include threatened and protected species that are listed, actions in terms of NEMBA are triggered.

Based on the preliminary sensitivity screening and site sensitivity verification undertaken for the proposed development during the Scoping Phase (van Rooyen, 2022), no threatened or protected plant species (ToPS; NEMA 2007c)) were recorded during the Vhuvhili site survey. None of the ToPs listed plant species are expected to be negatively affected by the development.

The following protected **threatened or protected faunal species** (ToPS) are listed for the general region:

#### Mammals:

Aonyx capensis	African Clawless otter	Protected
Atelerix frontalis	Southern African hedgehog	Protected
Connochaetes gnou	Black wildebeest	Protected
Felis nigripes	Black-footed cat	Vulnerable
Leptailurus serval	Serval	Protected
Ourebia ourebi	Oribi	Endangered
Panthera pardus	Leopard	Vulnerable
Vulpes chama	Cape fox	Protected

The Southern African hedgehog and serval do occur on site according to the landowners.

#### **Reptiles:**

The giant girdled lizard (*Smaug giganteus*) is listed for the region on the ADU database, but was not highlighted by the Screening Tool. No individuals were recorded on site. However, as a precautionary measure it is recommended that a survey be done for this reptile once the proposed final layout has been established (van Rooyen, 2022).

#### **Amphibians:**

None of the listed amphibians for the region are ToPS protected species.

# 4.1.1.6.3 Alien and Invasive Species

The Alien and Invasive Species Regulations, published in 2014 and amended in 2020, in terms of the NEMBA provides for the protection of biodiversity through the control and eradication of listed alien and invasive species categorised as follows:

- Category 1a Listed Invasive Species must be combatted or eradicated;
- Category 1b Listed Invasive Species must be controlled or 'contained' in accordance with the requirements of an Invasive Species Management Programme;
- Category 2 Listed Invasive Species require a permit to carry out a restricted activity e.g. cultivation within an area;
- Category 3 Listed Invasive Species species that are less-transforming invasive species, but introduction, trade or transportation should be limited. Category 3 plant species are automatically Category 1b species where located within riparian and wetland areas;
- Exempted Alien Species species that are not regulated; and
- Prohibited Alien Species species for which a permit for restricted activities (e.g. inter alia hunting, gathering, breeding, cultivating, trading, transporting) may not be issued.

The Alien and Invasive Species List was published in terms of sections 66(1), 67(1), 70(1)(a), 71(3) and 71A of the NEMBA in Government Gazette 40166, GN 864 on 29 July 2016.

As noted in the Terrestrial Biodiversity and Species Scoping Level Assessment (Appendix G.2 of this Draft Scoping Report), the following Category 1b Listed Invasive Species were recorded in the wider area:

Arundo donax	Opuntia ficus-indica
Cereus jamacaru	Solanum elaeagnifolium
Cirsium vulgare	Verbena bonariensis
Cuscuta campestris	Verbena brasiliensis
Datura ferox	Xanthium spinosum

#### 4.1.1.7 The National Heritage Resources Act (Act 25 of 1999)

The National Heritage Resources Act (Act 25 of 1999) (NHRA) introduces an integrated and interactive system for the management of national heritage, archaeological and palaeontological resources (which include landscapes and natural features of cultural significance).

Parts of sections 35(4), 36(3) (a) and 38(1) of the NHRA apply to the proposed project:

#### Archaeology, palaeontology and meteorites:

Section 35 (4) – No person may, without a permit issued by the responsible heritage resources authority:

- a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
- b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
- c) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.

# **Burial grounds and graves:**

Section 36 (3) (a) - No person may, without a permit issued by South African Heritage Resources Agency (SAHRA) or a provincial heritage resources authority:

- a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
- b) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
- c) bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals.

#### Heritage resources management:

38 (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorized as:

- a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300 m in length;
- b) the construction of a bridge or similar structure exceeding 50 m in length;
- c) any development or other activity which will change the character of the site
  - (i) exceeding 5 000 m<sup>2</sup> in extent, or

- (ii) involving three or more 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 resources authority;
- d) the re-zoning of a site exceeding 10 000 m<sup>2</sup> in extent; or
- e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

While landscapes with cultural significance do not have a dedicated Section in the NHRA, they are protected under the definition of the National Estate (Section 3). Section 3(2)(c) and (d) list "historical settlements and townscapes" and "landscapes and natural features of cultural significance" as part of the National Estate. Furthermore, Section 3(3) describes the reasons a place or object may have cultural heritage value. Section 38 (2a) of the NHRA states that if there is reason to believe that heritage resources will be affected then an impact assessment report must be submitted.

In terms of Archaeology, a Site Sensitivity Verification Report (in terms of Part A of GN 320) was compiled during the Scoping Phase, as included in Appendix G.7 of this Draft Scoping Report. Initial work was carried out using satellite aerial photography in combination with the specialist's accumulated knowledge of the local landscape. This was used to identify potentially sensitive areas. Subsequent fieldwork served to ground-truth the site, including areas identified as potentially sensitive. Desktop research was also conducted to inform on the heritage context of the area. Historical aerial photography was also used in an attempt to see historical sites as well as to characterise the changes in the cultural landscape. The fieldwork revealed that most of the site is of very low sensitivity. The only areas considered to be of low sensitivity were some stone features, while a number of graves and some possible graves were allocated very high sensitivity. Therefore, the main concern identified for this project is graves which occur both inside and outside of the project footprint. Archaeological remains (ephemeral traces and foundations of past walling and stone features) do not appear to be of great age and do not have any associated materials. Although a very small chance exists of still born infant remains having been buried under any residential structures that once occurred on site, such remains would be difficult to locate. No unequivocal residential sites were identified and this aspect is thus of limited further concern. The specialist recommends that a preconstruction survey be undertaken to examine the final approved footprint. This will serve to identify any further archaeological sites that might potentially be sensitive and, more importantly, it will serve to check for further graves. In conjunction with the survey, social consultation could be carried out to ascertain if any residents know of further graves in the study area. The specialist also strongly recommends that the project proponent plans for a larger area than is required so that any graves within the final footprint can be excised from the PV area without compromising the area required for the facility.

A Heritage Impact Assessment (including Archaeology and Cultural Landscape) will be undertaken during the EIA Phase of the proposed project in accordance with GN 320 (Part A) and Appendix 6 of the 2014

NEMA EIA Regulations (as amended). This specialist study will be included in the Draft EIA Report that will be released to Interested and Affected Parties (I&APs) for review during the EIA Phase.

In terms of Palaeontology, a Site Sensitivity Verification Report (in terms of Part A of GN 320) was compiled during the Scoping Phase, as included in Appendix G.8 of this Draft Scoping Report. During a recent palaeontological site visit undertaken by the Palaeontologist in October 2021, the adjacent farm Goedenoeg 290 was surveyed for the proposed Becrux SEF project. The palaeontologist notes that no fossils of any kind were seen during this site visit. The recently ploughed agricultural land has deep, dark soils, more or less flat topography, and no rocky outcrops.

Since the site visit by the archaeologist for the proposed Vhuvhili SEF project confirmed that the land has been ploughed and planted in the last few decades, the palaeontologist confirmed it is unlikely that any fossils will be seen before excavations commences. Therefore, a desktop study with a Fossil Chance Find Protocol that should be added to the EMPr, is strongly recommended for this Vhuvhili SEF project.

Mpumalanga Provincial Heritage Resource Authority (MPHRA; for built environment and cultural landscapes) and the South African Heritage Resources Agency (SAHRA; for archaeology and palaeontology) are required to provide comment on the proposed project. The Draft Scoping Report will be uploaded onto SAHRIS during the 30-day review period. Any issues by SAHRA and/or MPHRA will then be addressed as part of the Final Scoping Report or during the EIA Phase, where required.

Once a final comment has been issued by the heritage authority, the recommendations should be included in the conditions of the EA (should such authorisation be granted). This will essentially give 'permission' from the heritage authorities to proceed.

The proposed project may require a permit in terms of the NHRA prior to any fossils or artefacts being removed by professional palaeontologists and archaeologists. If archaeological mitigation is needed, then the appointed archaeologist will need to contact SAHRA and/or the MPHRA in order to confirm requirements to conduct the work. The permit application must be carried out well in advance of construction to ensure that there is enough time for the authorities to approve the mitigation work before construction commences.

Should professional palaeontological mitigation be necessary during the construction phase, the palaeontologist concerned will need to apply for a Fossil Collection Permit. Palaeontological collection should comply with international best practice. All fossil material collected must be deposited, together with key collection data, in an approved depository (museum / university). Palaeontological mitigation work including the ensuing Fossil Collection reports should comply with the minimum standards specified by SAHRA (2013).

#### **4.1.1.8** National Forests Act (Act 84 of 1998)

The National Forests Act (Act 84 of 1998, as amended) (NFA) allows for the protection of certain tree species. The Minister has the power to declare a particular tree to be a protected tree. The most recent list of protected tree species was published in 2018 in GN 536. In terms of Section 15(1) of the NFA, no person may cut, disturb, damage or destroy any protected tree or possess, collect, remove, transport, export,

purchase, sell, donate or in any other manner acquire or dispose of any protected tree or any product derived from a protected tree, except under a licence or exemption granted by the Minister to an applicant and subject to such period and conditions as may be stipulated. The DFFE is authorised to issue licences for any removal, cutting, disturbance, damage to or destruction of any protected trees. Therefore, the removal of any protected tree species listed within the NFA will require a tree removal permit, which can be obtained from the DFFE.

The Terrestrial Biodiversity and Species Scoping Level Assessment (Appendix G.2 of this Draft Scoping Report) notes that no protected trees, according to the protected tree list (NFA 2021), were observed on site and it is unlikely that any such species occur within the Vhuvhili SEF development footprint.

In addition, protection of natural forests through gazetted lists of Natural Forests in terms of Sections 7 (2) of the NFA must also be highlighted. In terms of section 7(1) of the NFA, no person may cut, disturb, damage or destroy any indigenous tree in, or remove or receive any such tree from a natural forest except in terms of (a) a license issued under subsection (4) or section 23 of the NFA; or (b) an exemption from the provisions of subsection (4) of the NFA published by the Minister in the Gazette.

# 4.1.1.9 Conservation of Agricultural Resources Act (Act 43 of 1983)

The objectives of the Conservation of Agricultural Resources Act (Act 43 of 1983) (CARA) are to provide for the conservation of the natural agricultural resources of South Africa by the:

- maintenance of the production potential of land;
- combating and prevention of erosion and weakening or destruction of the water sources; and
- protection of the vegetation and the combating of weeds and invader plants.

The CARA states that no land user shall utilise the vegetation of wetlands (a watercourse or pans) in a manner that will cause its deterioration or damage. This includes cultivation, overgrazing, diverting water run-off and other developments that damage the water resource. The CARA includes regulations on alien invasive plants. According to the amended regulations (GN R280 of March 2001), declared weeds and invader plants are divided into three categories:

- Category 1 may not be grown and must be eradicated and controlled,
- Category 2 may only be grown in an area demarcated for commercial cultivation purposes and for which a permit has been issued, and must be controlled, and
- Category 3 plants may no longer be planted and existing plants may remain as long as their spread is
  prevented, except within the flood line of watercourses and wetlands. It is the legal duty of the land
  user or landowner to control invasive alien plants occurring on the land under their control.

Invasive alien species (and their category) likely to occur on site are listed in Chapter 6 and Appendix B of the Terrestrial Biodiversity and Species Scoping Level Assessment (Appendix G.2 of this Draft Scoping Report). These alien plant species will be managed in line with the EMPr.

As noted in the Agriculture Assessment (Appendix G.1 of this Draft Scoping Report), rehabilitation after disturbance to agricultural land is managed by the CARA. A consent in terms of CARA is required for the cultivation of virgin land. Cultivation is defined in CARA as "any act by means of which the topsoil is disturbed mechanically". The purpose of this consent for the cultivation of virgin land is to ensure that only

land that is suitable as arable land is cultivated. Therefore, despite the above definition of cultivation, disturbance to the topsoil that results from the construction of a renewable energy facility and its associated infrastructure does not constitute cultivation as it is understood in CARA. This has been corroborated by Anneliza Collett (Acting Scientific Manager: Natural Resources Inventories and Assessments in the Directorate: Land and Soil Management of the Department of Agriculture, Land Reform and Rural Development (DALRRD)). The construction and operation of the facility will therefore not require consent from the DALRRD in terms of this provision of CARA.

# 4.1.1.10 Subdivision of Agricultural Land Act (Act 70 of 1970)

The Subdivision of Agricultural Land Act (Act 70 of 1970) (SALA) requires that any long-term lease associated with the proposed Vhuvhili SEF be approved by the DALRRD. The SALA consent is separate from the Application for EA and needs to be applied for and obtained separately. An application for the change of land use (re-zoning) for the development on agricultural land will be lodged by the Project Applicant for approval in terms of the SALA as required.

#### 4.1.1.11 National Water Act (Act 36 of 1998)

One of the important objectives of the National Water Act (Act 36 of 1998) (NWA) is to ensure the protection of the aquatic ecosystems of South Africa's water resources. Section 21 of this Act identifies certain land uses, infrastructural developments, water supply/demand and waste disposal as 'water uses' that require authorisation (licensing) by the Department of Water and Sanitation (DWS). Chapter 4 (Part 1) of the NWA sets out general principles for the regulation of water use. Water use is defined broadly in the NWA, and includes taking and storing water, activities which reduce stream flow, waste discharges and disposals, controlled activities (activities which impact detrimentally on a water resource), altering the bed, banks, course or characteristics of a watercourse, removing water found underground for certain purposes, and recreation. In general, a water use must be licensed unless it is listed in Schedule I, is an existing lawful use, is permissible under a general authorisation, or if a responsible authority waives the need for a licence. The Minister may limit the amount of water which a responsible authority may allocate. In making regulations the Minister may differentiate between different water resources, classes of water resources and geographical areas.

All water users who are using water for agriculture: aquaculture, agriculture: irrigation, agriculture: watering livestock, industrial, mining, power generation, recreation, urban and water supply service must register their water use. This covers the use of surface- and groundwater.

Section 21 of the NWA lists the following water uses that need to be licensed:

- a) taking water from a water resource;
- b) storing water;
- c) impeding or diverting the flow of water in a watercourse;
- d) engaging in a stream flow reduction activity contemplated in section 36;
- e) engaging in a controlled activity identified as such in section 37(1) or declared under section 38(1);
- f) discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit;

- g) disposing of waste in a manner which may detrimentally impact on a water resource;
- h) disposing in any manner of water which contains waste from, or which has been heated in, any industrial or power generation process;
- i) altering the bed, banks, course or characteristics of a watercourse;
- j) removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people; and
- k) using water for recreational purposes.

Any activities that take place within the outer edge of the 1 in 100 year flood line and /or delineated riparian habitat, whichever is the greatest distance, measured from the middle of the watercourse of a river, spring, natural channel, lake or dam; within a watercourse; within 100 m of the edge of a watercourse; or within 500 m of a delineated wetland boundary, will require a water use authorisation in terms of Section 21 (c) and Section 21 (i) of the NWA. An application for water use authorisation for the proposed Vhuvhili SEF may be required should any of the planned structures or infrastructure associated with the proposed project trigger water uses in terms of Section 21 (c) and Section 21 (i) of the NWA.

Based on the preliminary risk matrix assessment undertaken for the proposed project, and assuming that the recommended buffers and mitigation measures will be implemented, the associated risk to the aquatic features would be low. Additional detail will be provided during the EIA Phase.

# 4.1.1.12 Water Services Act (Act 108 of 1997)

Water will be required during the construction, operational and decommissioning phases of the proposed project. Potable water is only to be utilised for human consumption purposes, whereas greywater is to be used for earthworks, dust suppression, etc. Water will be sourced from the following potential sources: Govan Mbeki Local Municipality; third-party water supplier; or existing or drilled boreholes on site. Should the latter be selected for water use, the boreholes will be subjected to complete geohydrological testing and an assessment, as well as a Water Use Licence Application process. This will be undertaken as a separate process, once more detailed information becomes available, outside of the current EA Application for the Vhuvhili SEF. Compliance with the Water Services Act (Act 108 of 1997) will be undertaken during the relevant phase of the proposed project, in consultation with the local and district municipalities.

# 4.1.1.13 Hazardous Substances Act (Act 15 of 1973)

During the proposed project, fuel and diesel will be utilised to power vehicles, generators and equipment. In addition, potential spills of hazardous materials could occur during the relevant phases. Such management actions will be recommended in the EMPr, which will be included as an Appendix to the Draft and Final EIA Reports.

# 4.1.1.14 National Environmental Management: Waste Act (Act 59 of 2008) (NEMWA)

The National Environmental Management: Waste Act (Act 59 of 2008, as amended) (NEM:WA) was published with one of the main objectives to reform the law regulating waste management in order to protect health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development. Section 19 of the NEM:WA allows the Minister to publish a List of Waste Management Activities that have, or are likely to have, a

detrimental effect on the environment published. Such a list specifies the waste management activities that will require a Waste Management Licence. The List of Waste Management Activities was originally published in GN 921 on 29 November 2013, and thereafter amended in GN 332 on 2 May 2014, GN 633 on 24 July 2015, GN 1094 on 11 October 2017. The List of Waste Management Activities include Categories A, B and C. If any waste management activities listed in Category A are triggered by a development, a BA process must be undertaken in terms of the 2014 NEMA EIA Regulations (as amended), as part of the Waste Management Licence application. Waste management activities in Category B will, however, require a full Scoping and EIA Process in terms of the 2014 NEMA EIA Regulations (as amended), as part of the Waste Management Licence application. If any of the waste management activities in Category C are triggered, then the relevant Norms and Standards must be followed.

Based on a review of the project description, the Vhuvhili SEF will **not** trigger the need for a Waste Management Licence. However, general and hazardous waste will be generated during the construction, operational and decommissioning phases, which will require proper management. Such management actions will be recommended in the EMPr, which will be included as an Appendix to the Draft and Final EIA Reports.

# 4.1.1.15 National Environmental Management: Air Quality Act (Act 39 of 2004)

The National Environmental Management: Air Quality Act (Act 39 of 2004, as amended) (NEM: AQA) was published in 2004 and came into full effect on 31 March 2010, when the Atmospheric Pollution Prevention Act (Act 45 of 1965) (APPA) was repealed. The NEM: AQA was published with the overall objective to:

- "reform the law regulating air quality in order 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; and
- provide for national norms and standards regulating air quality monitoring, management and control by all spheres of government; for specific air quality measures; and for matters incidental thereto".

The list of activities which result in atmospheric emissions which have or may have a significant detrimental effect on the environment, including health, social conditions, economic conditions, ecological conditions or cultural heritage was published under GN 248, Government Gazette 33064 dated 31 March 2010 and thereafter amended in GN 893, Government Gazette 37054 dated 22 November 2013. The list of activities was further amended in GN 551, Government Gazette 38863 dated 12 June 2015; GN 1207, Government Gazette 42013 dated 31 October 2018; GN 687, Government Gazette 42472 dated 22 May 2019; and GN 421, Government Gazette 43174 dated 27 March 2020.

Section 22 of the NEM: AQA deals with the consequences of listing, and it states that "no person may without a provisional atmospheric emission licence or an atmospheric emission licence conduct an activity (a) listed on the national list anywhere in the Republic; or (b) listed on the list applicable in a province anywhere in that province". Therefore, a Provisional Atmospheric Emissions Licence (AEL) and/or AEL is required for any plant or proposed development that triggers a listed activity.

Based on a review of the project description, the Vhuvhili SEF will **not** trigger the need for an AEL. However, the proposed stockpiling activities, including earthworks, may result in the unsettling of, and temporary

exposure to dust. Appropriate dust control methods will need to be applied. Such management actions will be recommended in the EMPr, which will be included as an Appendix to the Draft and Final EIA Reports.

# 4.1.1.16 Astronomy Geographic Advantage (Act 21 of 2007)

The Astronomy Geographic Advantage (AGA) Act (Act 21 of 2007) aims to provide for the preservation and protection of areas within the Republic that are uniquely suited for optical and radio astronomy; to provide for intergovernmental co-operation and public consultation on matters concerning nationally significant astronomy advantage areas; and to provide for matters connected therewith. The purpose of the AGA Act is to preserve the geographic advantage areas that attract investment in astronomy. The AGA Act also notes that declared astronomy advantage areas are to be protected and properly maintained in terms of Radio Frequency Interference (RFI). The AGA Act is administered by the Department of Higher Education, Science and Technology (previously the Department of Science and Technology).

The DFFE Screening Tool results for RFI for the proposed Vhuvhili SEF indicated "medium" sensitivity. This result arose because some of the south-western part of the proposed Vhuvhili project site "lies within 1 km of a telecommunication facility." This sensitivity is therefore not related to the Square Kilometre Array (SKA).

The location of the proposed project does not pose an EMI or RFI risk to the SKA, as the proposed project is located outside of the Northern Cape and outside of the SKA and Karoo Central Astronomy Advantage Area (KCAAA). The proposed Vhuvhili SEF site is located approximately 743 km from the KCAAA. The distance from site to the SKA spiral arm (spiral arm 2) and to the SKA core are 780 km and 864 km respectively. Please refer to Chapter 3 of this Draft Scoping Report for additional information on the RFI.

The SKA has been pre-identified as a key stakeholder and therefore included on the project database of I&APs (as shown in Appendix D of this Draft Scoping Report). The SKA Project Office will be requested to comment on the Draft Scoping Report during the 30-day review period.

# 4.1.1.17 Development Facilitation Act (Act 67 of 1995)

The Development Facilitation Act (Act 67 of 1995) (DFA) sets out several key planning principles which have a bearing on assessing proposed developments in light of the national planning requirements. The planning principles most applicable to the study area include:

- Promoting the integration of the social, economic, institutional and physical aspects of land development;
- Promoting integrated land development in rural and urban areas in support of each other;
- Promoting the availability of residential and employment opportunities in close proximity to or integrated with each other;
- Optimising the use of existing resources including such resources relating to agriculture, land, minerals, bulk infrastructure, roads, transportation and social facilities;
- Contributing to the correction of the historically distorted spatial patterns of settlement in the Republic and to the optimum use of existing infrastructure in excess of current needs;
- Promoting the establishment of viable communities; and

Promoting sustained protection of the environment.

#### 4.1.1.18 Other Applicable Legislation

Other applicable national legislation that may apply to the proposed project include:

- Advertising on Roads and Ribbons Act (Act 21 of 1940);
- Electricity Act (Act 41 of 1987);
- Electricity Regulations Amendments (August 2009);
- Promotion of Administrative Justice Act (Act 2 of 2000);
- Civil Aviation Act (Act 13 of 2009) and Civil Aviation Regulations (CAR) of 1997;
- Civil Aviation Authority Act (Act 40 of 1998);
- White Paper on Renewable Energy (2003);
- Integrated Resource Plan for South Africa (2019);
- Occupational Health and Safety Act (Act 85 of 1993), as amended by Occupational Health and Safety Amendment (Act 181 of 1993)<sup>1</sup>;
- Road Safety Act (Act 93 of 1996);
- Fencing Act (Act 31 of 1963);
- National Environmental Management: Protected Areas Act (NEM:PA) (Act 57 of 2003); and
- National Road Traffic Act (Act 93 of 1996).

#### 4.1.2 Provincial Legislation

#### 4.1.2.1 Mpumalanga Nature Conservation Act (Act 10 of 1998) (MNCA)

# 4.1.2.1.1 Flora (see Appendix B of the Terrestrial Biodiversity and Species Assessment)

# Schedule 11: Protected Plants (Section 69(1)(a) of the MNCA 1998)

A total of thirty (30) plant species are listed as Schedule 11 Protected plant species in the region according to the MNCA (1998) (Appendix B of the Terrestrial Biodiversity and Species Assessment). Most of these species are members of the Amaryllidaceae and Orchidaceae. Twelve of the 30 protected plant species (Schedule 11) were recorded during the site survey undertaken by the Terrestrial Biodiversity specialist in December 2021. Another five species are on the Mpumalanga Red list (Lötter 2015) although not included in the MNCA (1998) list for Mpumalanga:

Drimia angustifolia	LC
Hypoxis hemerocallidea	LC
Khadia beswickii	VU
Nerine gracilis	VU
Trachyandra erythrorrhiza	NT

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<sup>&</sup>lt;sup>1</sup> The proposed Battery Energy Storage Systems (BESS) must be designed, operated, maintained and decommissioned according to the requirements of Occupational Health and Safety Act (Act 85 of 1993).

Some provisions are given in terms of Schedule 11 Protected plants and Schedule 12 Specially Protected plants (Chapter 6, MNCA 1998):

- No person shall pick a protected plant without a permit.
- No person shall pick an indigenous plant in a nature reserve without a permit.
- No person shall pick an indigenous plant on a public road, land next to a public road within a distance of 100 meters from the centre of the road without a permit.
- No person shall pick an indigenous plant which is not a protected plant or specially protected plant on land which he or she is not the owner or occupier.
- No person shall donate, sell or export or remove from the province a protected plant without a permit.
- No person shall possess, pick, sell, purchase, donate or receive as a donation, import or export or remove from the Province a specially protected plant without a permit.

It will be recommended as part of the EMPr, that a detailed plant search and rescue operation be conducted before the final design process, during the appropriate flowering period where needed, and prior to the commencement of the construction phase. If any of the listed species are found, the relevant permits should be obtained by the Project Applicant prior to their relocation or destruction.

#### Schedule 12: Specially Protected Plants (Section 69(1)(b) of the MNCA 1998)

No Schedule 12 plant species are listed or were recorded on site during the site survey.

#### Schedule 13: Invader weeds and plants (MNCA 1998)

Ten Schedule 13 species were recorded on site (Appendix B of the Terrestrial Biodiversity and Species Assessment). No person shall possess, sell, purchase, donate or receive as a donation, convey, import or cultivate a Schedule 13 declared invader weed or plant without a permit.

#### 4.1.2.1.2 Fauna (see Appendix C of the Terrestrial Biodiversity and Species Assessment)

# Schedule 1: Specially Protected Game (Section 4 (1)(a) of MNCA 1998)

No Schedule 1 species are listed or were recorded on site during the site survey.

# Schedule 2: Protected Game (Section 4 (1)(a) of MNCA 1998)

Under the provincial Act (MNCA 1998), most mammals, reptiles and amphibians are listed as Schedule 2: Protected Game (see Appendix C of the Terrestrial Biodiversity and Species Assessment). Three species were recorded on site or confirmed by the landowners (Appendix C):

- Steenbok
- Hedgehog
- Serval

# Schedule 3: Ordinary Game (Section 4(1)(c) of MNCA 1998)

Three species were recorded on site or confirmed by the landowners (Appendix C):

- Springbok
- Blesbok
- Scrub hare

# Schedule 4: Protected Wild Animals (Section 4(1)(d) of MNCA 1998)

No species were recorded on site (Appendix C).

#### Schedule 5: Wild Animals to which Section 33 apply (MNCA 1998)

Provisions of Section 33 apply (MNCA 1998): No person shall import into the province, keep, possess, sell, purchase, donate or receive as a donation or convey a Schedule 5 live wild animal without a permit. Five species were recorded on site or confirmed by the landowners (Appendix C):

- Serval
- Egyptian mongoose
- Meerkat
- Springhare
- Civet

#### Schedule 6: Exotic Animals to which the provisions of Section 34 apply (MNCA 1998)

Provisions of Section 34 apply (MNCA 1998): No person shall keep, possess, sell, donate or receive as a donation or convey a Schedule 6 live exotic animal without a permit. No species were recorded on site (Appendix C).

#### Schedule 7: Invertebrates (Section 35 (1) of the MNCA 1998)

Provisions of Section 35(1) apply (MNCA 1998): No person shall collect, catch, kill, keep, purchase, sell, donate or receive as a donation, convey, import or export a Schedule 7 invertebrate without a permit.

#### Schedule 8: Problem Animals (Section 44(1) of the MNCA 1998)

One species was recorded on site (Appendix C):

Black-backed jackal

No permits are required for animal species since none should be harmed by the development.

Based on the Terrestrial Biodiversity and Species Scoping Level Assessment (Appendix G.2 of this Draft Scoping Report), the Screening Tool listed *Lepidochrysops procera* (Lepidoptera) as a Species of Conservation Concern (SCC) for the site. However, it was not listed in the ADU database, the MNCA (1998) provincial species lists or the NEMBA (2007c) ToPS lists. *Lepidochrysops procera* was not recorded on site and is unlikely to occur there because its host plant (*Ocimum obovatum*) was not present on site.

The said assessment notes that the screening tool, however, did not highlight the possible presence of the giant girdled lizard, a species with a Vulnerable IUCN status. However, the species was not recorded on site. Overall, the sensitivity of the animal species theme (avifaunal component excluded) is rated as medium. If the suggested mitigation measures are followed the animal SCC should not be negatively affected by the development.

The Mpumalanga Tourism and Parks Agency (MTPA) is the regulatory authority in Mpumalanga for the issuing of permits for fauna, flora, hunting and CITES and has been pre-identified as a key stakeholder and is included on the project database (as shown in Appendix D of this Draft Scoping Report).

# 4.1.2.2 Mpumalanga Vision 2030

As noted in the Socio-Economic Scoping Level Assessment (Appendix G.9 of this Draft Scoping Report), the Mpumalanga Vision 2030 Strategic Implementation Framework (2013-2030) provides a provincial expression of the key priorities, objectives and targets outlined in the National Development Plan 2030. In line with the objectives of the NDP the Mpumalanga Vision focusses on the following key socio-economic outcomes:

- Employment and Economic Growth;
- Education and Training;
- Health Care for all; and
- Social Protection.

The Mpumalanga Vision 2030 also identifies nine key drivers that have a bearing on the spatial development of the province. Key Drivers 1 to 6 are focused towards promoting economic development and job creation, Key Drivers 7 and 8 are focused on human settlement in and around the key priority nodes/areas identified and linked to Key Drivers 1-6, and Key Driver 9 is focused on the conservation and sustainable management of the natural environment. The relevant Key Drivers are summarised below.

**Key Driver 1:** <u>Nodal Development.</u> Key Driver 1 identifies corridors linked to key roads where investment should be focussed. Of relevance to the project is the fact that the N17 has been identified as a key corridor. The N17 is located to the north of the study area. It provides a major link between Johannesburg in the West with Ermelo, and the Eswatini Border in the east. Five primary nodes for development are also identified, including Secunda (and Ermelo).

**Key Driver 2:** <u>Business, Commercial and Industrial Development</u>. Key driver 2 focuses on development of business and commercial sectors on the primary, secondary and rural nodes in Mpumalanga and the potential for these activities to generate employment. Of relevance to the study is that the vision notes that the bulk of industrial investment in Mpumalanga Province should be clustered around the existing industrial strongholds, including Secunda (Petrochemical Industry).

**Key Driver 9:** Environmental Management and Conservation. The vision notes that in terms of mining it is important to establish proper environmental management systems during the operational phase of the mines to prevent large-scale water and air pollution. While the section does not specifically refer to renewable energy, much of the mining in Mpumalanga is linked to coal mining and power generation, both of which are large consumers of water. The water demands associated with renewable energy projects are significantly lower than those associated with traditional coal power stations.

#### 4.1.2.3 Mpumalanga Growth and Development Path

The Mpumalanga Economic Growth and Development Path (MEGDP)(2011) is informed by the National Economic Growth Path. The MEGDP notes that Mpumalanga is committed to increasing local economic development and job creation in the agricultural, industrial, manufacturing, *green economy*, tourism, and mining sectors.

The MEGDP is informed by six key pillars, namely:

- 1. Job creation;
- 2. Inclusive and shared growth of a diversified economy;
- 3. Spatial distribution;
- 4. Integration of regional economies;
- 5. Sustainable human development; and
- 6. Environmental sustainability.

The pillars of job creation, the development of a diversified economy, and sustainable environmental development are all relevant to the proposed Vhuvhili SEF development.

The MEGDP also identifies several key employment drivers aimed at realising the MEGDP objectives and securing strong and sustainable growth for the next decade. Of relevance these include the creation of employment of economic sectors including energy and the development of new economies including green industries. The MEGDP notes that the development of clean forms of energy like wind and hydro power generation opportunities, including gas production from landfill and organic waste should be supported. Although solar PV development is not listed specifically as a potential clean energy form, it shows that the municipality is supporting green energy initiatives in the energy sector of the province.

# 4.1.2.4 Mpumalanga Spatial Development Framework (2019)

The spatial vision for Mpumalanga Province is "A sustainable, vibrant and inclusive economy, Mpumalanga". The Spatial Development Framework (SDF) identifies several opportunities and challenges facing the province. The opportunities are linked to the province's natural resources, well developed economy, and established economies.

**Natural Environment:** The natural environment is diversified and is associated with the Highveld and the Lowveld areas in the province. Five major river systems flow through Mpumalanga and it is an important catchment area.

**Connectivity and Infrastructure:** The province is well connected in terms of infrastructure and is connected to Maputo and Richards Bay ports by both rail and road.

**Economy:** The province's rich biodiversity and scenic beauty support the tourism industry, while at the same time mining, specifically coal mining, plays a key role in the province's economy. The availability of high potential soil and diverse climatic conditions also support a range of crops.

*Urban settlements:* The key urban centres are well established economic centres and offer the opportunity for further economic development by leveraging on the towns' economic bases.

In terms of challenges, climate change is identified as a key challenge. In this regard the activities in the province, specifically the generation of coal powered energy, account for 90% of South Africa's scheduled emissions. The province is also home to 50% of the most polluted towns in the country. The predicted impacts associated with climate change include decreased rainfall in the province and increased temperatures. This will increase the risk of natural disasters, including droughts, flooding, and fires.

The SDF identifies five spatial objectives, namely:

**Connectivity and corridor functionality:** The aim is to ensure connectivity between nodes, secondary towns, marginalised areas, the surrounding area, and to green open space systems.

**Sustainable concentration and agglomeration:** The aim is to promote the creation of an agglomeration economy that will encourage people and economic activities to locate near one another in urban centres and industrial clusters.

**Conservation and resource utilisation:** The aim is to promote the maximisation, protection and maintenance of ecosystems, scarce natural resources, high-potential agricultural land, and integrated open space systems.

**Liveability and sense of place:** The aim is to create settlements that contribute to people's sense of personal and collective wellbeing and to their sense of satisfaction in being residents of a settlement.

**Rural diversity and transformation:** The aim is to create Urban-Rural anchors and choices for residents within the rural economy linked to access to markets, food security and security of land tenure.

Connectivity and corridor functionality, Sustainable concentration and agglomeration, and Conservation and resource utilisation are of specific relevance to the proposed Vhuvhili SEF development.

# Connectivity and corridor functionality

The Strategic Objectives that are relevant the study area and the proposed development include:

- Strategic Objective 2: Development of the existing corridors and building new linkages to increase capacity and economic opportunities and ensure connectivity to the surrounding areas.
- Strategic Objective 5: Decongestion of the coal haul roads and Improvement of Freight Network.

In terms of Strategic Objective 2, the spatial linkages identified for development and upgrading include the upgrade of the N17, **N17**/N2 and the N12 and N11 corridor.

#### Sustainable concentration and agglomeration

Of specific relevance, Strategic Objective 4, Diversify Economy, focusses on the need to diversify the economy. The SDF notes that the mining sector contributes 25% to Mpumalanga's Gross Value Added (GVA). In addition, there are several other sectors directly or indirectly dependent on mining such as manufacturing (specifically metal processing) and utilities (specifically power generation). The combined GVA of these three sectors makes up more than 40% of the provincial GVA.

However, the SDF recognises that mining is not a sustainable industry and resources are finite. There is therefore a need for a gradual shift from mining-oriented sectors to the sustainable economic sectors to maintain sustained growth of the provincial economy. Mpumalanga's Coal Mining and Coal Fired Power Plant region (located mainly in the Highveld area) will become under increasing pressure due to environmental considerations. As a result, the region is likely to experience a decline in demand for coal and with it a decline in the associated employment it creates. There is therefore a need to diversify the regional economy and facilitate the gradual transition of economic activities in the region. The proposed

Vhuvhili Solar development supports the objective of diversifying the province's economy by establishing a green energy project which will create local employment opportunities.

#### Conservation and resource utilisation

The strategic objectives that are relevant the study area and the proposed development include:

- Strategic Objective 2: Ensure conservation of all water resources and catchment Areas.
- Strategic Objective 4: Promote a low carbon and climate resilient economy.
- Strategic Objective 6: To optimally utilise the mining potential without compromising the long-term sustainability of the natural environment.

# Strategic Objective 2: Ensure Conservation of all Water Resources and Catchment Areas

Achieving Strategic Objective 2, "Ensure Conservation of all Water Resources and Catchment Areas", is closely linked to diversifying the economy. The SDF notes that the province's water resources are under pressure from high demand activities, including Eskom's power stations, mining, and industrial uses. The proposed Vhuvhili SEF development represents a low consumer of water.

#### Strategic Objective 4: Promote a Low Carbon and Climate Resilient Economy

Mpumalanga is home to 12 of Eskom's 15 coal-fired power stations; petrochemical plants including Sasol's refinery in Secunda; metal smelters; coal and other mines; brick and stone works; fertiliser and chemical producers; explosives producers; and other smaller industrial operations, making the Highveld one of South Africa's industrial heartlands (CER, 2017). As a result, the air quality within the Mpumalanga Province, especially within the Highveld area, is the poorest in South Africa. The Highveld region accounts for approximately 90 % of South Africa's scheduled emissions of industrial dust, sulphur dioxide and nitrogen oxides (Wells et al. 1996, as cited in Josipovic et al. 2009). Achieving Strategic Objective 4, "Promote a low carbon and climate resilient economy", is closely linked to diversifying the economy. The proposed Vhuvhili SEF development supports the development of a low carbon, climate resistant economy.

# Strategic Objective 6: To optimally utilise the mining potential without compromising the long-term sustainability of the natural environment

Mining contributes R 49.6 billion (approximately 25%) to the Mpumalanga economy. The key mining sector is coal, which represents 83% of South Africa's coal production. The mining sector, specifically coal mining, creates employment opportunities and supports the manufacturing and power generation sector. However, mining is also associated with many issues including water and soil contamination, air pollution and environmental degradation.

Achieving Strategic Objective 6, "To optimally utilise the mining potential without compromising the long-term sustainability of the natural environment", is closely linked to diversifying and developing a low carbon climate resistant economy. The proposed Vhuvhili SEF development supports the objective of diversifying and developing a low carbon, climate resistant economy. In terms of the high-level composite spatial development framework, Ermelo is identified as a Regional Service Centre (red dot) and the development area located to the south-east of the town falls within a mining area (brown hatched) (Figure 4.1). The economic sectors in the area include mining and power generation. The dominant land use in the area is commercial agriculture (yellow, Figure 4.2).

The proposed Vhuvhili SEF aligns with the focus areas of the Mpumalanga SDF. It will uplift the local communities through employment creation and increased investment in infrastructure. In addition, the proposed development will provide a sustainable source of energy for the national grid or for the Sasol grid. Employment creation would mainly be temporary in nature during the construction phase with limited opportunities created during the operational phase. Refer to Chapter 2 of this Draft Scoping Report for additional information on the proposed employment opportunities.

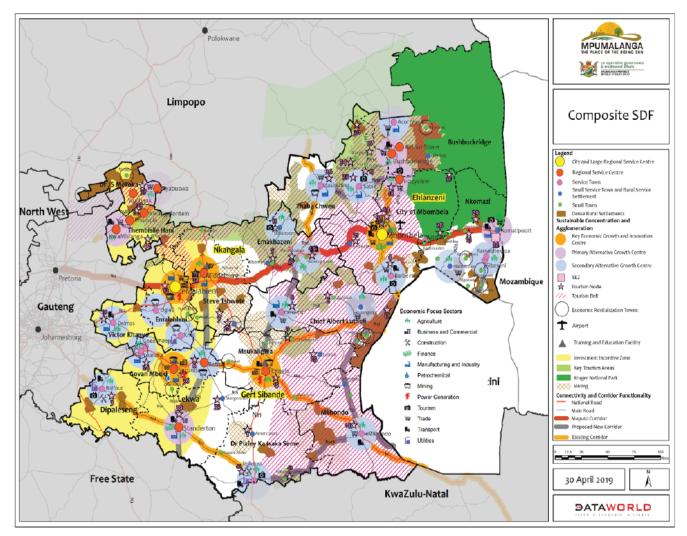


Figure 4.1: Mpumalanga Composite SDF-Economic Activities (Source: Mpumalanga SDF)

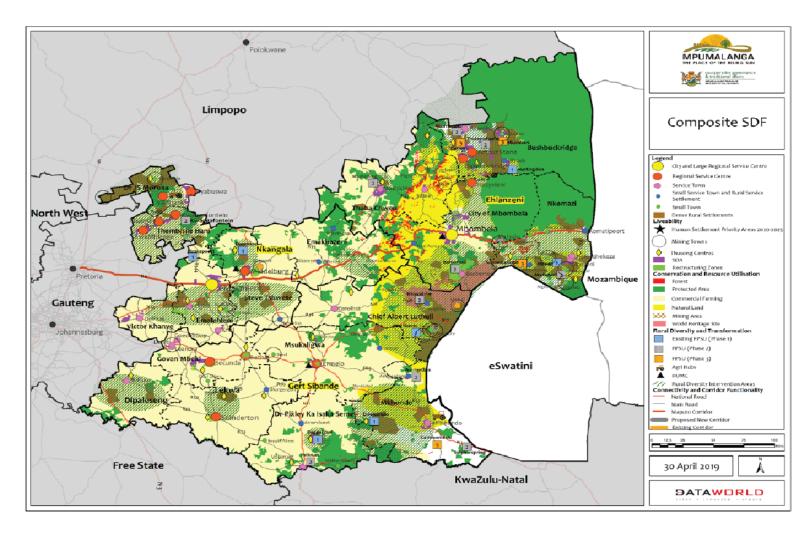


Figure 4.2: Mpumalanga Composite SDF-Land Uses (Source: Mpumalanga SDF)

#### 4.1.3 District and Local Planning Legislation

#### 4.1.3.1 Environmental Management Framework

Research indicates that there is no Environmental Management Framework (EMF) for the Gert Sibande District Municipality. The Screening Tool also notes that no intersections with EMF areas have been found.

# 4.1.3.2 Gert Sibande District Municipality Integrated Development Plan (IDP) 2021/2022

The Strategic Objectives of the Gert Sibande District Municipality Integrated Development Plan (IDP) 2021/2022, are to:

**Strategic Objective 1:** To develop and retain skilled and capacitated workforce.

Strategic Objective 2: To facilitate and coordinate provision of sustainable community and social services.

**Strategic Objective 3:** To facilitate economic growth and development.

Strategic Objective 4: To ensure financial viability and provide support to local municipalities.

Strategic Objective 5: To ensure effective governance in the administration of the institution.

**Strategic Objective 6**: To support and coordinate spatial transformation.

The IDP states that the Gert Sibande district must achieve sufficient, secure and reliable energy supply and should rapidly expand generation capacity through a diverse energy mix. The proposed Vhuvhili SEF project is in line with the district IDP because it will enable the Gert Sibande District Municipality to expand their generation capacity by developing a 300 MW solar PV project which will contribute to the diverse energy mix. Furthermore, it will contribute to local economic growth and development as it will create employment and support livelihoods.

#### 4.1.3.3 Govan Mbeki Local Municipality IDP 2021/2022

The vision of the Govan Mbeki Municipality (GMM) as set out in the 2020/2021 IDP review is "To be a Model City and Centre of Excellence."

The Vision, Mission and Values are informed by six (6) Key Strategic objectives:

**Strategic Objective 1:** To enhance revenue & secure financial sustainability.

Strategic Objective 2: To provide sustainable services, optimise operations and improve customer care.

**Strategic Objective 3:** To facilitate and create an enabling environment for diversified local economic development, social cohesion and job creation.

Strategic Objective 4: To enhance the capacity of human capital and deliver institutional transformation.

Strategic Objective 5: To develop spatially integrated, safe communities and a protected environment.

Strategic Objective 6: To promote good corporate governance and effective stakeholder engagement.

Strategic Objectives 2,3 and 5 are relevant to the proposed Vhuvhili SEF project.

The IDP highlights the renewable energy sector as a technical service that can be provided to support the

workforce in delivering on the strategic objectives. Green (renewable) energy & energy efficiency is listed as one of the strategic initiatives and proposed interventions to achieve Strategic Objective 2, "To provide sustainable services, optimise operations and improve customer care". The proposed Vhuvhili SEF development is therefore directly aligned with this objective as it is a green (renewable) energy initiative.

Strategic Objective 3, "To facilitate and create an enabling environment for diversified local economic development, social cohesion, and job creation", is of relevance to this project. The IDP notes that this objective can be achieved through the phasing in of renewable energy options, which include concentrated solar power, wind and natural gas thereby reducing its dependence on coal resources. Although solar PV is not specifically listed as a renewable energy option, it shows that the municipality is supporting green energy initiatives to diversify local economic development. The proposed Vhuvhili SEF is therefore aligned with this objective.

Strategic Objective 5, "To develop spatially integrated, safe communities and a protected environment", is also relevant to the proposed Vhuvhili SEF development.

The proposed project is also aligned with Strategic Objective 6, "Infrastructure Investment", of the SDF for the Govan Mbeki Municipality. The IDP notes that the municipality should invest in green infrastructure e.g. water tanks and **renewable energy (e.g. solar).** 

The proposed project is aligned with two of the objectives of the IDP in that it will encourage sustainable development and economic growth through increased investment and employment opportunities. The proposed project will create employment opportunities and economic spin offs during the construction and operational phases (if EA is granted by the Mpumalanga DARDLEA). This will also address unemployment and poverty as well as Climate Change which have been identified as "Threats" in the SWOT analysis which was undertaken as part of the IDP process for the Govan Mbeki Local Municipality.

# 4.1.3.4 Guidelines, Frameworks and Protocols

The following guidelines, frameworks and protocols are applicable to the proposed project:

- Guidelines published in terms of the NEMA EIA Regulations, in particular:
  - Guideline on Alternatives (DEA, 2014);
  - Guideline on Transitional Arrangements (Department of Environmental Affairs and Development Planning (DEA&DP), 2013);
  - Guideline on Alternatives (DEA&DP, 2013);
  - O Guideline on Public Participation (DEA, 2012; DEA&DP, 2013; DEA, 2017);
  - National Noise Control Regulations (GN R154 of 1992) and SANS 10103:2008;
  - Guideline on Need and Desirability (DEA&DP, 2013; DEA, 2017);
- Information Document on Generic Terms of Reference for Environmental Assessment Practitioners (EAPs) and Project Schedules (March 2013);
- Integrated Environmental Management Information Series (Booklets 0 to 23) (Department of Environmental Affairs and Tourism (DEAT), 2002 2005);
- Guidelines for Involving Specialists in the EIA Processes Series (DEA&DP; CSIR and Tony Barbour, 2005
   – 2007);

- BirdLife South Africa (BLSA) 2017 Guidelines for assessing and monitoring the impact of solar power generating facilities on birds in southern Africa;
- Species Environmental Assessment 2020 Guideline: Guidelines for the implementation of the Terrestrial Fauna and Terrestrial Flora Species Protocols for EIAs in South Africa. South African National Biodiversity Institute (SANBI);
- United Nations Framework Convention on Climate Change (1997); and
- Kyoto Protocol (which South Africa acceded to in 2002).

# 4.1.4 International Finance Corporation Performance Standards

In order to promote responsible environmental stewardship and socially responsible development, the proposed project will as far as practicable incorporate the environmental and social policies of the International Finance Corporation (IFC). These policies provide a frame of reference for lending institutions to review environmental and social risks of projects, particularly those undertaken in developing countries.

Through the Equator Principles, the IFC's standards are now recognised as international best practice in project finance. The IFC screening process categorises projects into A, B or C in order to indicate relative degrees of environmental and social risk. The categories are:

- Category A Project expected to have significant adverse social and/or environmental impacts that are diverse, irreversible, or unprecedented;
- Category B Project expected to have limited adverse social and/or environmental impacts that can be readily addressed through mitigation measures; and
- Category C Project expected to have minimal or no adverse impacts, including certain financial intermediary projects.

Accordingly, projects such as the proposed Vhuvhili SEF are categorised as Category B projects. The EIA Process for Category B projects examines the project's potential negative and positive environmental impacts. As required for Category B projects, a Scoping and EIA Process is being undertaken.

Other Acts, standards and/or guidelines which may also be applicable will be reviewed in more detail as part of the specialist studies to be conducted for the EIA Process.

# 4.2 Legal Context for this EIA

In terms of the NEMA and the 2014 NEMA EIA Regulations (as amended), a full Scoping and EIA Process is required for the proposed project. The need for the full Scoping and EIA Process is triggered by, amongst others, the inclusion of Activity 1 listed in GN R325 (Listing Notice 2):

"The development of facilities or infrastructure for the generation of electricity from a renewable resource where the electricity output is 20 megawatts or more, excluding where such development of facility or infrastructure is for photovoltaic installations and occurs (a) within an urban area; or (b) on existing infrastructure". Note that the proposed Vhuvhili SEF is not located within any of the 11 Renewable Energy Development Zones (REDZs) gazetted in GN 114 on 16 February 2018 and GN 144 on 26 February 2021, nor is it located within any of the strategic power corridors gazetted in GN 113 on 16 February 2018 and GN 383 on 29 April 2021; therefore, a full Scoping and EIA Process is being undertaken for the proposed project, subjected to a 107-day decision-making timeframe. Additional information on the REDZs and power corridors are provided in Chapter 5 of this Draft Scoping Report.

The proposed Vhuvhili SEF project site is nevertheless located approximately 29 km away (at its closest point) from the Emalahleni REDZ (i.e., REDZ 9). In addition, it is located approximately 34 km away (at its closest points) from the International Strategic Transmission Corridor. While the proposed SEF is not located within the Emalahleni REDZ or International Strategic Transmission Corridor, the proposed project still indeed supports the development of a large-scale renewable energy project at the proposed location. The proposed project is linked to the national planning vision for Renewable Energy development as well as the development of the Green Hydrogen economy in South Africa.

All the listed activities forming part of this proposed development and therefore requiring EA are included in the Application Form for EA that has been prepared and submitted to the Mpumalanga DARDLEA with this Draft Scoping Report. The listed activities triggered by the proposed Vhuvhili SEF are indicated in Table 4.1. Note that the listed activities noted below only address the current Scoping and EIA Project (Vhuvhili SEF) and not the EGI project which will be subjected to a separate BA Process.

It should be noted that a precautionary approach was followed when identifying listed activities (for inclusion in the Application for EA and to be assessed as part of the Scoping and EIA Process), i.e. if the activity potentially forms part of the project, it is listed. However, the final project description will be shaped by the findings of the EIA Process and certain activities may be added or removed from the project proposal, followed by the submission of an Amended Application Form for EA to the Mpumalanga DARDLEA, as required.

Table 4.1: Listed Activities in GN R327, GN R325, and GN R324 that will be potentially triggered by the proposed Vhuvhili SEF

Listed Activity Number	Listed Activity Description	Description of the portion of the proposed project to which the applicable listed activity relates	
	Listing Notice 1, GN R327		
Activity 11 (i)	The development of facilities or infrastructure for the transmission and distribution of electricity —	The proposed project will entail the construction of an on-site substation complex, as indicated below:	
	<ul> <li>(i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts;</li> <li>excluding the development of bypass infrastructure for the transmission and distribution of electricity where such bypass infrastructure is —</li> <li>(a) temporarily required to allow for maintenance of existing infrastructure;</li> <li>(b) 2 kilometres or shorter in length;</li> <li>(c) within an existing transmission line servitude; and</li> </ul>	The footprint of the on-site substation complex will extend approximately 4 ha, respectively. The internal distribution electrical infrastructure required to connect the respective electrical components related to the project, and the onsite substation, including cabling (buried or overhead) will be between 33kV and 132kV. The onsite substation will be rated 33/132kV whereas internal cabling will be up to 33kV.  This constitutes facilities for the distribution and transmission of electricity.  The proposed Vhuvhili SEF project will take place outside of an urban area. It will be constructed on various affected farm portions, south-east of the town of Secunda in the Govan Mbeki Local Municipality and Gert Sibande	
	(d) will be removed within 18 months of the commencement of development.	District Municipality, in the Mpumalanga Province.  This activity would therefore be triggered.	
Activity 12 (ii) [(a) and (c)]	The development of—  (ii) infrastructure or structures with a physical footprint of 100 square metres or more;  where such development occurs—	The proposed Vhuvhili SEF project will take place outside of an urban area. It will be constructed on various affected farm portions, south-east of the town of Secunda in the Govan Mbeki Local Municipality and Gert Sibande District Municipality, in the Mpumalanga Province.	

Listed Activity Number	Listed Activity Description	Description of the portion of the proposed project to which the applicable listed activity relates
	(a) within a watercourse;	The proposed Vhuvhili SEF will entail the construction of various building
	(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; —	infrastructure and structures (such as the solar fields, offices, warehouses/workshops, ablution facilities, guard houses, Operational and Maintenance (O&M) control centres, inverter/transformer stations, an onsite substation complex, laydown areas and an on-site Battery Energy
	excluding—	Storage System (BESS) etc.). The infrastructure and structures will exceed a
	(aa) the development of infrastructure or structures within existing ports	footprint of 100 m <sup>2</sup> and some will occur within minor watercourses and
	or harbours that will not increase the development footprint of the port or harbour;	drainage features and within 32 m of these aquatic features.
	or narbour,	The aquatic features within the study area for the Vhuvhili SEF comprise of
	(bb) where such development activities are related to the development	several un/channelled valley bottom wetlands, seepage wetlands and
	of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies;	floodplain wetlands, most of which are captured in the Critical Biodiversity Area (CBA). Several of the above-mentioned wetlands and rivers are located
	(cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies;	on the study site and all drain into the Klipspruit River (which is classified as a floodplain wetland) in the middle of the study site. The Klipspruit River drains into Trichardspruit and then into the Kleinspruit approximately 10 km
	(dd) where such development occurs within an urban area;	west of the study site.
	(ee) where such development occurs within existing roads, road reserves or railway line reserves; or	The study site is situated within an upstream FEPA. Upstream FEPA's are areas in which human activities need to be managed to prevent damage to downstream FEPA's. The Klipspruit River and associated wetlands that drain
	(ff) the development of temporary infrastructure or structures where	into the Klipspruit River are all classified as NFEPA Wetlands.
SI	such infrastructure or structures will be removed within 6 weeks of the commencement of development and where indigenous vegetation will not be cleared.	The sensitivity model that was applied in the Aquatic Scoping Assessment classified the drainage lines in the FEPA as being of high sensitivity with most of the area classified as low sensitivity and a few areas of medium sensitivity.

Listed Activity Number	Listed Activity Description	Description of the portion of the proposed project to which the applicable listed activity relates
		Refer to Appendix G.3 of this Draft Scoping Report (Aquatic Biodiversity Scoping Level Specialist Assessment) for additional feedback on the aquatic features within the study area.  In addition, the proposed project site contains areas of CBA in terms of the MBSP CBA Map within which the proposed infrastructure will be constructed. The road upgrading may also occur within these areas.  Based on an access investigation conducted for the site by the Traffic
		Specialist (Wink, 2021)), two site access points are recommended for the site. The access points are proposed off the gravel sections of the D823 and D619 road. The access points are located off existing gravel access roads thus access spacing restrictions are not envisaged. Sight lines along the access points are within the recommended limits. The final site access points will be based on the access investigation findings, geometric considerations and site layout restrictions.
		This existing gravel road will be widened and upgraded for the proposed project, with an upgraded width ranging up to approximately 10 m. Exact specifications of the widening and upgrading of the farm gravel road will be confirmed during the detailed design phase. The road widening and upgrading will exceed a footprint of 100 m <sup>2</sup> .  This activity would therefore be triggered.

Listed Activity Number	Listed Activity Description	Description of the portion of the proposed project to which the applicable listed activity relates
Activity 14	The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.	The Facility will require storage and handling of dangerous goods, including fuel, cement and chemical storage onsite, that will be greater than 80m³ but not exceeding 500m³.  This activity would therefore be triggered.
Activity 19	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse.  but excluding where such infilling, depositing, dredging, excavation, removal or moving-  a) will occur behind a development setback;	The proposed Vhuvhili SEF project may entail the excavation, removal and moving of more than 10 m³ of soil, sand, pebbles or rock from nearby watercourses on site. The proposed project may also entail the infilling of more than 10 m³ of material into the nearby watercourses. The aquatic features within the study area for the Vhuvhili SEF comprise of un/channelled valley bottom wetlands, seepage wetlands and floodplain wetlands. Several of the above-mentioned wetlands and rivers are located on the study site and all drain into the Klipspruit River in the middle of the study site.
	<ul> <li>b) is for maintenance purposes undertaken in accordance with a maintenance management plan;</li> <li>c) falls within the ambit of activity 21 in this Notice, in which case that activity applies;</li> <li>d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or</li> <li>e) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies.</li> </ul>	This access road will be widened and upgraded for the proposed project, with a width of up to 10 m. Exact specifications of the widening and upgrading of the farm gravel road will be confirmed during the detailed design phase.  Refer to Appendix G.3 of this Draft Scoping Report (Aquatic Biodiversity Scoping Level Specialist Assessment) for additional feedback on the aquatic features within the study area.  This activity would therefore be triggered.

Listed Activity Number	Listed Activity Description	Description of the portion of the proposed project to which the applicable listed activity relates
Activity 24 (ii)	The development of a road –  (ii) with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres; but excluding a road–	Internal access roads required by the Facility will be between 5 m and 6 m wide and longer than 1 km. Where required for turning circle/bypass areas, however, access or internal roads may be up to 10 m to allow for larger component transport. The exact values will be confirmed once final designs have been provided.
	<ul> <li>a) which is identified and included in activity 27 in Listing Notice 2 of 2014; or</li> <li>b) where the entire road falls within an urban area; or</li> <li>c) which is 1 km or shorter.</li> </ul>	This activity would therefore be triggered.
Activity 28 (ii)	Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development:  (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare;  excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or institutional purposes.	The proposed Vhuvhili SEF will be developed outside of an urban area. It will be constructed on various affected farm portions, south-east of the town of Secunda in the Govan Mbeki Local Municipality and Gert Sibande District Municipality, in the Mpumalanga Province. Hence the proposed project will take place outside of an urban area. The land earmarked for the development of the proposed Vhuvhili SEF is currently used for agricultural purposes (mainly maize cultivation and limited livestock farming).  The proposed Vhuvhili SEF which is considered as a commercial/industrial development, will have an estimated footprint of approximately 650 ha. The proposed project will entail the construction of various building infrastructure and structures (such as the solar fields, offices, warehouses/workshops, ablution facilities, guard houses, O&M control centres, inverter/transformer stations, on-site substation complex, laydown areas and BESS etc.). This will constitute infrastructure with a physical footprint of more than 1 ha.  This activity would therefore be triggered.

Listed Activity Number	Listed Activity Description	Description of the portion of the proposed project to which the applicable listed activity relates	
Activity 48(i)(a)(c)	The expansion of—  (i) infrastructure or structures where the physical footprint is expanded by 100 square metres or more; or  (ii) dams or weirs, where the dam or weir, including infrastructure and water surface area, is expanded by 100 square metres or more;  where such expansion occurs—  (a) within a watercourse;	Transport of large infrastructure components related to the facility will require the expansion of existing access and/or internal roads, culverts or similar drainage crossing infrastructure collectively exceeding 100 m <sup>2</sup> or more beyond existing road or road reserves located within delineated watercourses on site, or within 32 m of the outer extent of the delineated watercourses on site.  This activity would therefore be triggered.	
	<ul><li>(b) in front of a development setback; or</li><li>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse;</li></ul>	This activity would therefore be triggered.	
Activity 56 (ii)	The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre-  (i) where the existing reserve is wider than 13,5 meters; or  (ii) where no reserve exists, where the existing road is wider than 8 metres;  excluding where widening or lengthening occur inside urban areas.	The access points off the gravel sections of the D823 and D619 roads and existing onsite gravel roads may be widened by more than 6 m in some places to provide access to the SEF site. Internal access roads will be up to 20 m wide. Where possible existing gravel roads will be upgraded, and may be widened by more than 6 m and/or lengthened by more than 1 km.  This activity would therefore be triggered.	
	Listing Notice 2, GN	R325	
Activity 1	The development of facilities or infrastructure for the generation of electricity from a renewable resource where the electricity output is 20 megawatts or more, excluding where such development of facilities or infrastructure is for photovoltaic installations and occurs —  (a) within an urban area; or	The proposed Vhuvhili SEF project will entail the construction of a Solar PV facility (i.e., a facility for the generation of electricity from a renewable resource), with a capacity of up to 300 MW.  It will be constructed on various affected farm portions, south-east of the town of Secunda in the Govan Mbeki Local Municipality and Gert Sibande	

Listed Activity Number	Listed Activity Description	Description of the portion of the proposed project to which the applicable listed activity relates	
	(b) on existing infrastructure.	District Municipality, in the Mpumalanga Province. Hence the proposed project will take place outside of an urban area.  This activity would therefore be triggered.	
Activity 15	The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for—  (i) the undertaking of a linear activity; or  (ii) maintenance purposes undertaken in accordance with a maintenance management plan.		
	GN R324 (Listing no	tice 3)	
Activity 4 (f) (i)	The development of a road wider than 4 meters with a reserve less than	The proposed Vhuvhili SEF project will be constructed on various affected	
(ee)	13.5 meters.	farm portions, south-east of the town of Secunda in the Govan Mbeki Local	
	f. Mpumalanga i. Outside urban areas:	Municipality and Gert Sibande District Municipality, in the Mpumalanga Province. Hence the proposed project will take place outside of an urban area.	
	(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;	Internal roads will be constructed within the footprint of the proposed Vhuvhili SEF. The internal roads are expected to be composed of gravel and will extend approximately 4 to 5 m wide. The total internal road length will be confirmed during the final design.	
		In 2014, the Mpumalanga Parks and Tourism Agency developed the Mpumalanga Biodiversity Sector Plan (MBSP). In essence the MBSP is a map	

Listed Activity Number	Listed Activity Description	Description of the portion of the proposed project to which the applicable listed activity relates
		guiding areas of conservation concern for the Mpumalanga Province. Two maps have been developed, namely one for terrestrial biodiversity, and the other for freshwater biodiversity. Based on the terrestrial MBSP, the majority of the site is classified as CBA I (mostly in Habitats 4 & 5 (natural and disturbed grassland – low sensitivity rating in current survey) and on the rocky grassland habitat (Habitat 3 – medium sensitivity rating) in the southeast of the site) with medium to large areas classified as heavily or moderately modified. Old lands also occupy some sections especially in the south. A large section associated with the Klipspruit River is classified as a CBA. The freshwater map indicated that the aquatic ecosystems in and around the study site are classified as Other Natural Areas (ONAs). There is also an Ecological Support Area (ESA) to the west of the study site.  Refer to the Terrestrial Biodiversity and Species Scoping Level Assessment (Appendix G.2 of this Draft Scoping Report), and Aquatic Biodiversity Scoping Level Assessment (Appendix G.3 of this Draft Scoping Report) for additional information on the CBAs, ESAs and species recorded on site.  Therefore, the proposed internal road network may be constructed within CBA and/or 'Heavily or moderately modified' areas as captured in the MBSP Terrestrial Biodiversity CBA Map.  This activity would therefore be triggered.
Activity 12 (f) (ii)	The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is	The proposed Vhuvhili SEF will have an estimated footprint of approximately 650 ha. As a result, more than 300 m <sup>2</sup> of indigenous vegetation may be cleared for the construction of the proposed Vhuvhili SEF and associated

Listed Activity Number	Listed Activity Description	Description of the portion of the proposed project to which the applicable listed activity relates
	required for maintenance purposes undertaken in accordance with a maintenance management plan.	infrastructure. The proposed project site contains areas of CBA in terms of the Mpumalanga Terrestrial Biodiversity CBA Map.
	f. Mpumalanga  ii. Within critical biodiversity areas identified in bioregional plans;	This activity would therefore be triggered.
Activity 14 (ii) (a) and (c); (f), (i) (ff)	The development of —  (ii) infrastructure or structures with a physical footprint of 10 square metres or more;  where such development occurs —	The proposed Vhuvhili SEF project will be constructed on various affected farm portions, south-east of the town of Secunda in the Govan Mbeki Local Municipality and Gert Sibande District Municipality, in the Mpumalanga Province. Hence the proposed project will take place outside of an urban area.
	<ul> <li>(a) within a watercourse;</li> <li>(c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse;</li> <li>f. Mpumalanga</li> <li>i. Outside urban areas:</li> <li>(ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</li> </ul>	The proposed Vhuvhili SEF will entail the construction of various building infrastructure and structures (such as the solar fields, offices, warehouses/workshops, ablution facilities, guard houses, O&M control centres, inverter/transformer stations, on-site substation complexes, laydown areas and BESS etc.). The infrastructure and structures will exceed a footprint of 10 m² and some will occur within minor watercourses and drainage features and within 32 m of these aquatic features.  The aquatic features within the study area for the Vhuvhili SEF comprise of several un/channelled valley bottom wetlands, seepage wetlands and floodplain wetlands, most of which are captured in the CBA. Several of the above-mentioned wetlands and rivers are located on the study site and all drain into the Klipspruit River (which is classified as a floodplain wetland) in

Listed Activity Number	Listed Activity Description	Description of the portion of the proposed project to which the applicable listed activity relates
		the middle of the study site. The Klipspruit River drains into Trichardspruit and then into the Kleinspruit approximately 10 km west of the study site.
		The study site is situated within an upstream FEPA. Upstream FEPA's are areas in which human activities need to be managed to prevent damage to downstream FEPA's. The Klipspruit River and associated wetlands that drain into the Klipspruit River are all classified as NFEPA Wetlands.
		The sensitivity model that was applied in the Aquatic Scoping Assessment classified the drainage lines in the FEPA as being of high sensitivity with most of the area classified as low sensitivity and a few areas of medium sensitivity.
		Refer to Appendix G.3 of this Draft Scoping Report (Aquatic Biodiversity Scoping Level Specialist Assessment) for additional feedback on the aquatic features within the study area.
		In addition, the proposed project site contains areas of CBA in terms of the MBSP CBA Map within which the proposed infrastructure will be constructed. The road upgrading may also occur within these areas.
		Based on an access investigation conducted for the site by the Traffic Specialist (Wink, 2021)), two site access points are recommended for the
		site. The access points are proposed off the gravel sections of the D823 and D619 road. The access points are located off existing gravel access roads thus access spacing restrictions are not envisaged. Sight lines along the access points are within the recommended limits. The final site access points will be

Listed Activity Number	Listed Activity Description	Description of the portion of the proposed project to which the applicable listed activity relates	
		based on the access investigation findings, geometric considerations and site layout restrictions.  This existing gravel road will be widened and upgraded for the proposed project, with an upgraded width ranging up to approximately 10 m. Exact specifications of the widening and upgrading of the farm gravel road will be confirmed during the detailed design phase. The road widening and upgrading will exceed a footprint of 100 m <sup>2</sup> .  This activity would therefore be triggered.	
Activity 18 (f) (i)(ee)	The widening of a road by more than 4 meters, or the lengthening of a road by more than 1 kilometre:  f. Mpumalanga i. Outside urban areas:  (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;	The proposed Vhuvhili SEF project will be constructed on various affected farm portions, south-east of the town of Secunda in the Govan Mbeki Local Municipality and Gert Sibande District Municipality, in the Mpumalanga Province. Hence the proposed project will take place outside of an urban area.  In 2014, the Mpumalanga Parks and Tourism Agency developed the MBSP. In essence the MBSP is a map guiding areas of conservation concern for the Mpumalanga Province. Two maps have been developed, namely one for terrestrial biodiversity, and the other for freshwater biodiversity. Based on the terrestrial MBSP the majority of the site is classified as CBA 1 (mostly in Habitats 4 & 5 (natural and disturbed grassland – low sensitivity rating in current survey) and on the rocky grassland habitat (Habitat 3 – medium sensitivity rating) in the southeast of the site) with medium to large areas classified as heavily or moderately modified. Old lands also occupy some section especially in the south.	

Listed Activity Number	Listed Activity Description	Description of the portion of the proposed project to which the applicable listed activity relates
		The freshwater map indicated that the aquatic ecosystems in and around the
		study site are classified as ONAs. There is also an ESA to the west of the study
		site. The aquatic features within the study area for the Vhuvhili SEF comprise
		of several un/channelled valley bottom wetlands, seepage wetlands and
		floodplain wetlands, most of which are captured in the CBA. Several of the
		above-mentioned wetlands and rivers are located on the study site and all
		drain into the Klipspruit River (which is classified as a floodplain wetland) in
		the middle of the study site.
		Refer to Appendix G.3 of this Draft Scoping Report (Aquatic Biodiversity
		Scoping Level Specialist Assessment) for additional feedback on the aquatic
		features within the study area.
		In addition, the proposed project site contains areas of CBA in terms of the
		MBSP CBA Map and the road upgrading may occur within these areas.
		Based on an access investigation conducted for the site by the Traffic
		Specialist (Wink, 2021)), two site access points are recommended for the
		site. The access points are proposed off the gravel sections of the D823 and
		D619 road. The access points are located off existing gravel access roads thus
		access spacing restrictions are not envisaged. Sight lines along the access
		points are within the recommended limits. The final site access points will be
		based on the access investigation findings, geometric considerations and site
		layout restrictions.
		This existing gravel road will be widened and upgraded for the proposed
		project, with an upgraded width ranging up to approximately 10 m. Exact
		specifications of the widening and upgrading of the farm gravel road will be

Listed Activity Number	Listed Activity Description	Description of the portion of the proposed project to which the applicable listed activity relates
		confirmed during the detailed design phase. The road widening and upgrading will exceed a footprint of 100 m <sup>2</sup> .  This activity would therefore be triggered.
Activity 23 (ii) (a)(c) (f) (i) (ee)	The expansion of—  (ii) infrastructure or structures where the physical footprint is expanded by 10 square metres or more; where such expansion occurs—  (a) within a watercourse;  (c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse;  f. Mpumalanga  i. Outside urban areas:  (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;	The proposed Vhuvhili SEF may entail development of infrastructure or structures where the physical footprint is expanded by 10 square metres or more; where such expansion occurs within a watercourse; or within 32 m from a watercourse within an area marked as a CBA 1 on farms near Secunda in the Mpumalanga Province.  This activity would therefore be triggered.

## 4.3 Screening Tool

As noted above, GN 960 (dated 5 July 2019) stipulates the compulsory requirement (as from 4 October 2019) to submit a report generated by the Screening Tool, when submitting an Application for EA. The proposed Vhuvhili SEF project has accordingly been run through the Screening Tool, and the associated report generated and attached to the combined Application for EA.

Based on the selected classification, the National Web Based Environmental Screening Tool provides a list of specialist assessments that should be undertaken as part of the Scoping and EIA Process, as well as identifies the sensitivities on site that need to be verified by either the EAP or the specialists, where relevant, as noted in the Assessment Protocols of 20 March 2020 (GN 320) and 30 October 2020 (GN 1150). The classification that applies to the proposed project is **Utilities Infrastructure**; **Electricity**; **Generation**; **Renewable**; **Solar**, **PV** and **Solar PV**.

The following list of Specialist Assessments have been identified by the Screening Tool for inclusion in the Scoping and EIA Processes (Table 4.2). The Screening Tool Report notes that it is the responsibility of the EAP to confirm this list and to motivate in the Scoping Report, the reason for not including any of the identified specialist assessments, where relevant.

Table 4.2: List of Specialist Assessments identified by the Screening Tool for the proposed Vhuvhili SEF

F	cialist Assessment Required by the Screening Tool	Assessment undertaken in Scoping and EIA Process	Type of Assessment undertaken in Scoping and EIA Process	Appendix of Scoping Report
1	Agriculture and Soils	Yes	Protocol GN 320: Part B: Agriculture (Protocol for the Specialist Assessment and Minimum Report Content Requirements of Environmental Impacts on Agricultural Resources by Onshore Wind and/or Solar PV Energy Generation Facilities where the Electricity Output is 20 MW or more): Impact Assessment	Appendix G.1
2	Terrestrial Biodiversity Impact Assessment	Yes	Protocol GN 320: Part B: Biodiversity (Protocol for the Specialist Assessment and Minimum Report Content Requirements of Environmental Impacts on Terrestrial Biodiversity): Impact Assessment  Note that the reporting for Terrestrial Biodiversity and Terrestrial Plant Species is combined in one report. The reporting for Avifauna is included in the separate Avifauna study listed below (please refer to Appendix G.4).	Appendix G.2
3	Plant Species Assessment	Yes	Protocol GN 1150: Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Plant Species: Impact Assessment	Appendix G.2

F	cialist Assessment Required by the Screening Tool	Assessment undertaken in Scoping and EIA Process	Type of Assessment undertaken in Scoping and EIA Process	Appendix of Scoping Report
			Please note that one combined report was provided to address the Terrestrial Biodiversity and Species and the Terrestrial Plant Species Protocols (please refer to Appendix G.2).  The report also addressed faunal species and includes a Site Sensitivity Verification report for the Terrestrial Animal Species Themes.  However, the Avifuana specialist on the specialist team conducted a Terrestrial Animal Species Assessment based on the Terrestrial Animal Species Protocols (please refer to Appendix G.4).	
4	Animal Species Assessment	Yes	Protocol GN 1150: Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Animal Species: Impact Assessment  The Terrestrial Biodiversity and Species report also addressed faunal species and includes a Site Sensitivity Verification report for the Terrestrial Animal Species Themes (please refer to Appendix G.2).  However, the Avifuana specialist on the specialist team conducted a Terrestrial Animal Species Assessment based on the Terrestrial Animal Species Protocols (please refer to Appendix G.4).	Appendix G.2 and G.4
5	Aquatic Biodiversity Impact Assessment	Yes	Protocol GN 320: Part B: Biodiversity (Protocol for the Specialist Assessment and Minimum Report Content Requirements of Environmental Impacts on Aquatic Biodiversity): Impact Assessment  The Impact Assessment to be undertaken as part of this Scoping and EIA Process is referred to as an Aquatic Biodiversity and Species Impact Assessment. Note there is currently no Species Protocol applicable to Aquatic Plants and Animals.	Appendix G.3
6	Avifauna Impact Assessment	Yes	Protocol GN 1150: Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Animal Species: Impact Assessment	Appendix G.4

Specialist Assessment Required by the Screening Tool		Assessment undertaken in Scoping and EIA Process	Type of Assessment undertaken in Scoping and EIA Process	Appendix of Scoping Report
7	Landscape/Visual Impact Assessment	Yes	Protocol GN 320: Part A: Site Sensitivity Verification; and Appendix 6 of the 2014 NEMA EIA Regulations (as amended): Impact Assessment	Appendix G.6
8	Archaeological and Cultural Heritage Impact Assessment	Yes	Protocol GN 320: Part A: Site Sensitivity Verification; and Appendix 6 of the 2014 NEMA EIA Regulations (as amended): Impact Assessment	Appendix G.7
9	Palaeontology Impact Assessment	Yes	Protocol GN 320: Part A: Site Sensitivity Verification; and Appendix 6 of the 2014 NEMA EIA Regulations (as amended): Impact Assessment  The specialist has compiled a Site Sensitivity Verification. The Palaeontological specialist indicated that since the site visit by the archaeologist for this project confirmed that the land has been ploughed and planted in the last few decades, it is unlikely that any fossils will be seen before excavations commences. Therefore, a desktop study with a Fossil Chance Find Protocol, that should be added to the EMPr, is strongly recommended.	Appendix G.8
10	Socio-Economic Assessment	Yes	Appendix 6 of the 2014 NEMA EIA Regulations (as amended): Impact Assessment  There are no themes on the Screening Tool that currently relate to Socio-Economic features that could be verified on site. Hence Part A of GN 320 (Site Sensitivity Verification) is not applicable in this regard.	Appendix G.8
11	Civil Aviation Assessment	Yes, if required	Protocol GN 320: Part B: Civil Aviation (Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Civil Aviation Installations): Site Sensitivity Verification and/or Compliance Statement  The Screening Tool indicates that the southeastern portion and a small portion on the north-western section of the proposed project area is of "medium" sensitivity with the classification of "within 8 km of another civil aviation aerodrome". This still needs to be verified on site. Should the medium sensitivity, or a higher sensitivity, be verified, then a Compliance Statement is to be undertaken during the EIA Phase. Should the site be verified	To be provided during EIA Phase

Specialist Assessment Required by the Screening Tool		Assessment undertaken in Scoping and EIA Process	Type of Assessment undertaken in Scoping and EIA Process	Appendix of Scoping Report
			as low sensitivity, then only a Site Sensitivity Verification will be required.  The South African Civil Aviation Authority is included on the I&AP database and will be provided with access to the Draft Scoping Report to seek comment during the Scoping and EIA Process.	
12	Defence Assessment	Yes, if required	Protocol GN 320: Part B: Defence (Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Defence Installations): Site Sensitivity Verification and/or Compliance Statement	To be provided during EIA Phase
			The Screening Tool indicates that the proposed project area is of "low" sensitivity in terms of Defence. This still needs to be verified on site. Should the site be confirmed as being of low sensitivity, then only a Site Sensitivity Verification will be required. Should the site be verified as medium, high or very high sensitivity, then a Compliance Statement is to be undertaken during the EIA Phase.	
			The Department of Defence and ARMSCOR are included on the I&AP database and will be provided with access to the Draft Scoping Report in order to seek comment during the Scoping and EIA Process.	
13	Radio Frequency Interference (RFI) Assessment	No	Protocol GN 320: Part B: RFI (Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on RFI): Site Sensitivity Verification and/or Compliance Statement  The Screening Tool indicates that the proposed project area is of "medium" sensitivity in terms of RFI. This still needs to be verified on site. Should the site be verified as low sensitivity,	Not applicable
			then only a Site Sensitivity Verification will be required. Should the site be verified as medium, high or very high sensitivity, then a Compliance Statement is to be undertaken during the EIA Phase.  The SKA Office is included on the I&AP database and will be provided with access to the Draft	

Specialist Assessment Required by the Screening Tool		Assessment undertaken in Scoping and EIA Process	Type of Assessment undertaken in Scoping and EIA Process	Appendix of Scoping Report
			Scoping Report to seek comment during the Scoping and EIA Process.	
14	Geotechnical Assessment	Yes	A desktop Geotechnical study will be undertaken during the EIA phase. It should be noted that this is a technical study and therefore will not comply with Appendix 6 of the 2014 NEMA EIA Regulations (as amended):	To be provided during EIA Phase

### 4.3.1 Additional Specialist Assessments

It must be noted that the Screening Tool did not identify the need for the following specialist assessments, however these studies have been commissioned as part of the Scoping and EIA Process in order to ensure that all potential impacts resulting from the proposed project are considered and assessed as best as possible:

- Traffic Impact Assessment: Scoping inputs have been included in Appendix G.10 of this Draft Scoping Report, and will be supplemented and updated, as required, during the EIA Phase. The Traffic Impact Assessment is being undertaken in compliance with Appendix 6 of the 2014 NEMA EIA Regulations (as amended); and
- Battery Energy Storage System (BESS) High Level Safety, Health and Environment Risk Assessment:
  The Scoping Level inputs are included in Appendix G.5 of this Draft Scoping Report, and will be
  supplemented and updated, as required, during the EIA Phase. As indicated above, this is a technical
  report, and does not need to fulfil the requirements of the 2014 NEMA EIA Regulations (as amended).

## 4.3.2 Geotechnical Assessment

The Screening Tool also identified the need for a Geotechnical Assessment. A Geotechnical Assessment has not been undertaken as part of the Scoping and EIA Process as this will be undertaken during the detailed design phase, if preferred bidder status is obtained in terms of the Renewable Energy Independent Power Producer Programme (REIPPPP) or similar processes.

Contractors and suppliers will only be selected and appointed if preferred bidder status is obtained (should it be granted). In line with best practice, and to ensure that all aspects are covered in the assessment, suppliers of sub-structures, inverters and transformers and civil sub-contractors are required to provide input into the scope of work of the Geotechnical Assessment. Therefore, Geotechnical Assessments can only be undertaken during detailed design, if preferred bidder status is obtained.

This motivation for exclusion was acknowledged and approved by the Mpumalanga DARDLEA during the pre-application meeting, with the recommendation for such motivation to also be included in the Draft Scoping Report. All correspondence relating to the pre-application meeting is addressed in Appendix F of this Draft Scoping Report.

## 4.4 Principles for Scoping and Public Participation

### 4.4.1 Objectives of the Scoping Phase

This Scoping Process is being planned and conducted in a manner that is intended to identify and provide sufficient information to enable the authorities to reach a decision regarding the scope of issues to be addressed in this EIA Process, and in particular to convey the range of specialist assessments that will be included as part of the EIA Phase, as well as the approach to these specialist assessments.

As highlighted in Chapter 1 of this Draft Scoping Report, within this context, the objectives of this Scoping Process (as per the 2014 NEMA EIA Regulations (as amended)) are to:

- Identify the relevant policies and legislation relevant to the proposed activity;
- Motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;
- Clarify the project scope to be covered;
- Identify and confirm the preferred activity and technology alternative through an identification of impacts and risks and ranking process of such impacts and risks;
- Identify and confirm the preferred site, through a detailed site selection process, which includes an
  identification of impacts and risks inclusive of identification of cumulative impacts and a ranking
  process of all the identified alternatives focusing on the geographical, physical, biological, social,
  economic, and cultural aspects of the environment;
- Clarify the alternatives being considered and ensure due consideration of alternative options regarding the proposed development, including the "No-go" option;
- Conduct an open, participatory and transparent approach and facilitate the inclusion of stakeholder issues in the decision-making process;
- Identify and inform a broad range of stakeholders about the proposed development;
- Confirm the process to be followed and opportunities for stakeholder engagement;
- Identify and document the key issues to be addressed in the impact assessment phase (through a
  process of broad-based consultation with stakeholders) and the approach to be followed in addressing
  these issues;
- Confirm the level of assessment to be undertaken during the impact assessment, including the
  methodology to be applied, the expertise required as well as the extent of further consultation to be
  undertaken to determine the impacts and risks the activity will impose on the preferred site through
  the life of the activity, including the nature, significance, consequence, extent, duration and probability
  of the impacts to inform the location of the development footprint within the preferred site; and
- Identify suitable measures to avoid, manage or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

### 4.4.2 Introduction to the Public Participation Process

This section provides an overview of the tasks being undertaken in the Scoping Phase, with a particular emphasis on providing a clear record of the Public Participation Process (PPP) to be followed.

The PPP is being driven by a stakeholder engagement process that will include inputs from authorities, I&APs, technical specialists and the Project Developer. Guideline 4 on "Public Participation in support of the EIA Regulations" published by the former Department of Environmental Affairs and Tourism (DEAT) in May 2006, states that public participation is one of the most important aspects of the Environmental Assessment Process. This stems from the requirement that people have a right to be informed about potential decisions that may affect them and that they must be afforded an opportunity to influence those decisions. Effective public participation also improves the ability of the Competent Authority to make informed decisions and results in improved decision-making as the views of all parties are considered.

An effective PPP could therefore result in stakeholders working together to produce better decisions than if they had worked independently. The DEAT guideline states the following in terms of PPP:

- "Provides an opportunity for I&APs, EAPs and the Competent Authority to obtain clear, accurate and understandable information about the environmental impacts of the proposed activity or implications of a decision;
  - Provides I&APs with an opportunity to voice their support, concern and question regarding the project, application or decision;
  - Enables an applicant to incorporate the needs, preferences and values of affected parties into its application;
  - Provides opportunities for clearing up misunderstanding about technical issues, resolving disputes and reconciling conflicting interests;
  - o Is an important aspect of securing transparency and accountability in decision-making; and
  - Contributes toward maintaining a health, vibrant democracy."

To the above, one can add the following universally recognised principles for public participation:

- Inclusive consultation that enables all sectors of society to participate in the consultation and assessment processes;
- Provision of accurate and easily accessible information in a language that is clear and sufficiently non-technical for I&APs to understand, and that is sufficient to enable meaningful participation;
- Active empowerment of grassroots people to understand concepts and information with a view to active and meaningful participation;
- Use of a variety of methods for information dissemination in order to improve accessibility, for example, by way of discussion, documents, meetings, workshops, focus group discussions, and the printed and broadcast media;
- Affording I&APs sufficient time to study material, to exchange information, and to make contributions at various stages during the assessment process;
- Provision of opportunities for I&APs to provide their inputs via a range of methods, for example, via briefing sessions, public meetings, written submissions or direct contact with members of the EIA team; and
- Public participation is a process and vehicle to provide sufficient and accessible information to I&APs
  in an objective manner to assist I&APs to identify issues of concern, to identify alternatives, to suggest
  opportunities to reduce potentially negative or enhance potentially positive impacts, and to verify that
  issues and/or inputs have been captured and addressed during the assessment process.

At the outset it is important to highlight two key aspects of public participation:

- There are practical and financial limitations to the involvement of all individuals within a PPP. Hence, the PPP aims to generate issues that are representative of societal sectors, not each individual and will be designed to be inclusive of a broad range of sectors relevant to the proposed project; and
- The PPP will aim to raise a diversity of perspectives and will not be designed to force consensus amongst I&APs. Indeed, diversity of opinion rather than consensus building is likely to enrich ultimate decision-making. Therefore, where possible, the PPP will aim to obtain an indication of trade-offs that all stakeholders (i.e. I&APs, technical specialists, the authorities and the development proponent) are willing to accept the ecological sustainability, social equity and economic growth associated with the project.

The Department of Environmental Affairs (2017), Public Participation guideline in terms of the NEMA EIA Regulations is also being considered during this Scoping and EIA Process.

The key steps in the PPP for this Scoping and EIA Process are described below. This approach is structured in line with the requirements of Chapter 6 (PPP) of the 2014 NEMA EIA Regulations (as amended, i.e. GN R326), as well as the approved Public Participation Plan, as described below. Various mechanisms will be undertaken to provide notice to all potential and registered I&APs of the proposed project, as described below.

The Draft Scoping Report is currently being released to I&APs, Stakeholders and Organs of State (including the Mpumalanga DARDLEA and the National DFFE) for a 30-day comment period. The Application for EA will be submitted to the CA (Mpumalanga DARDLEA) at the same time as the Draft Scoping Report.

# 4.4.3 Pre-Application Consultation with the Competent Authority

A request for a Pre-Application Meeting was submitted to the Mpumalanga DARDLEA, on 11 May 2022 after which the EAP received verbal response from the Mpumalanga DARDLEA on 13 May 2022 confirming that a Pre-Application Meeting was scheduled for 23 May 2022. The Pre-Application Meeting was undertaken in order to discuss and agree on various aspects prior to release of the Draft Scoping Report. The following points were discussed with the Mpumalanga DARDLEA:

- An overview of the proposed project;
- A description of the proposed project
- Findings of the National Web-Based Screening Tool Report;
- Discussion and confirmation on the specialist assessments and compliance statements to be undertaken;
- Discussion and confirmation on the approach towards the specialist reporting, including that of the Assessment Protocols (GN 320, dated 20 March 2020; and GN1150, dated 30 October 2020);
- Approach to the PPP;
- Identification of environmental sensitivities on site and Findings of the National Web-Based Screening
   Tool Report;

- Discussion and confirmation on the proposed project schedule and overall process for the Scoping and EIA, including the Cumulative Impact Assessment approach; and
- Points for clarification.

The Mpumalanga DARDLEA confirmed that a Public Participation Plan is not required for this project. Refer to Appendix F.1 of this Draft Scoping Report for a copy of the Agenda for the Pre-Application Meeting with Mpumalanga DARDLEA; Appendix F.2 for a copy of the presentation delivered at the Pre-Application Meeting and Appendix F.3 for a copy of the Pre-Application Meeting Notes. The Pre-Application Meeting Notes were submitted to the Mpumalanga DARDLEA via email on 1 June 2022 and approved by the Mpumalanga DARDLEA on 8 June 2022.

#### 4.4.4 Landowner Written Consent

Regulation 39(1) of the 2014 NEMA EIA Regulations (as amended) states that "if the proponent is not the owner or person in control of the land on which the activity is to be undertaken, the proponent must, before applying for an environmental authorisation in respect of such activity, obtain the written consent of the landowner or person in control of the land to undertake such activity on that land".

Regulation 39 (2) of the 2014 NEMA EIA Regulations (as amended) further states that "sub-regulation (1) does not apply in respect of: (a) linear activities; and (c) strategic integrated project as contemplated in the Infrastructure Development Act, 2014".

The proposed Vhuvhili SEF project constitutes non-linear activities, and landowner consent is therefore required for the following land portions to be affected by this proposed Solar PV development:

Farm name	Farm No.	Farm Portion	SG code
GROOTVLEI	584	RE	T0IS00000000058400000
GROOTVLEI	293	23	T0IS00000000029300023
GROOTVLEI	293	18	T0IS00000000029300018
GROOTVLEI	293	20	T0IS00000000029300020
GROOTVLEI	293	21	T0IS00000000029300021
POVERTY ACRES	585	RE	T0IS00000000058500000
VLAKSPRUIT	292	21	T0IS00000000029200021
VLAKSPRUIT	292	22	T0IS00000000029200022

Written consent has been obtained from the respective landowners of the affected farm portions on which the non-linear infrastructure is proposed to be located. The written consent has been included as an appendix to the Application for EA, which is being submitted to the CA, together with the Draft Scoping Report for comment.

For the access road leading to the proposed Vhuvhili SEF, which will be upgraded and potentially widened, landowner consent is not legally required in terms of Regulation 39 of the 2014 NEMA EIA Regulations (as amended) as the access road constitutes a linear activity.

# 4.4.5 Determination of Appropriate Consultation Measures, and I&AP Identification, Registration and the Creation of an Electronic Database

In order to accommodate the varying needs of I&APs and develop their capacity to participate in the process, information sharing forms an integral and ongoing component of the EIA Process to ensure effective public participation.

In line with Regulation 41 (2) (b) of the 2014 NEMA EIA Regulations (as amended) and prior to the commencement of the Scoping and EIA Processes (and advertising the EA Process in the local print media), an initial database of I&APs (including key stakeholders and Organs of State) was developed for the Scoping and EIA Processes. This was undertaken based on research. Appendix D of this Draft Scoping Report includes a copy of the I&AP Database, which includes key stakeholders and all I&APs that have been added to the project database.

In line with Regulation 41 (2) (b) of 2014 NEMA EIA Regulations (as amended), the database includes the details of the following:

- Landowners of the affected farm portions;
- Occupiers of the affected farm portions;
- Landowners of the neighbouring adjacent farm portions;
- The municipal councillor of the ward in which the proposed project will be undertaken (Ward 5 of the Govan Mbeki Local Municipality);
- The municipality which has jurisdiction in the area (i.e. Govan Mbeki Local Municipality and Gert Sibande District Municipality);
- Relevant Organs of State that have jurisdiction in respect of any aspect of the activity; and
- Any other party as required by the Competent Authority.

The I&AP database contains, as a minimum, the Competent Authority (i.e. Mpumalanga DARDLEA); relevant state departments (e.g. DFFE), Department of Water and Sanitation (DWS), Department of Agriculture, Land Reform and Rural Development (DALRRD), Department of Mineral Resources and Energy (DMRE) etc.); relevant organs of state (e.g. Govan Mbeki Local Municipality and Gert Sibande District Municipality), Eskom SOC Ltd, etc.); as well as potential and registered I&APs (e.g. landowners, neighbours etc.).

The above stakeholders, Organs of State and I&APs will accordingly receive written notification of the commencement of the Scoping and EIA Processes, and the release of the Draft Scoping Report as well as Draft EIA Report for comment for the Vhuvhili SEF project.

While I&APs have been encouraged to register their interest in the project from the start of the process, following the public announcements, the identification and registration of I&APs is ongoing for the duration of the study. Stakeholders from a variety of sectors, geographical locations and/or interest groups are expected to show an interest in the proposed project, for example:

- Provincial and Local Government Departments;
- Local interest groups, for example, Councillors and Rate Payers Associations;
- Surrounding landowners;
- Farmer Organisations;
- Environmental Groups and NGOs; and
- Grassroots communities and structures.

As per Regulation 42 of the 2014 NEMA EIA Regulations (as amended), in terms of the electronic database, I&AP details will be captured and automatically updated as and when information is distributed to or received from I&APs. This ongoing record of communication is an important component of the PPP. It must be noted that while not required by the regulations, those I&APs proactively identified at the outset of the Scoping and EIA Process will remain on the project database throughout the process and will be kept informed of all opportunities to comment and will only be removed from the database by request.

### 4.4.6 Site Notices

One specific mechanism of informing I&APs of the proposed project includes the placement of site notice boards. Regulation 41 (2) (a) of the 2014 NEMA EIA Regulations (as amended) requires that a notice board providing information on the project and Scoping and EIA Process is fixed at a place that is conspicuous to and accessible by the public at the boundary, on the fence or along the corridor of the site where the application will be undertaken or any alternative site.

Notice boards in the English, Afrikaans and Zulu languages have been placed at the entrance of the key affected farm portions on which the proposed project will be constructed, as well as at the Secunda Library. Refer to Appendix E.1 of this Draft Scoping Report for a copy of the content of the site notice boards. Proof of placement of the site notice boards will be included in the Final Scoping Report.

Site notice boards will include the following, in compliance with Regulation 41 (3) of the 2014 NEMA EIA Regulations (as amended):

- The details of the proposed project that are subjected to public participation;
- Explanation that a Scoping and EIA procedure is applicable to the proposed Vhuvhili SEF;
- The nature and location of the proposed project;
- Details on where further information on the proposed project can be obtained; and
- The manner in which and the person to whom representations in respect of the proposed project can be made.

## 4.4.7 Newspaper Advertisements

Regulation 41 (2) (c) of the 2014 NEMA EIA Regulations (as amended) requires the placement of a newspaper advertisement in one local newspaper or any official Gazette that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of the NEMA EIA Regulations.

In line with this, in order to notify and inform the public of the proposed project, to invite I&APs to register on the project database, as well as to inform I&APs of the release of the Draft Scoping Report for comment, the Scoping and EIA Processes will be advertised in a local newspaper, i.e., the ""Ridge Times" at the commencement of the 30-day comment period for the Draft Scoping Report. The content of the newspaper advertisement will comply with Regulation 41 (3) of the 2014 NEMA EIA Regulations (as amended) and will also include the details of the project website, where information available on the proposed project can be downloaded from. Refer to Appendix E.2 of this Draft Scoping Report for a copy of the content of the newspaper advertisements. Proof of placement of the newspaper advertisements will be included in the Final Scoping Report.

At this stage, there are no official Gazettes published specifically for the purpose of providing public notice of applications or other submissions made in terms of the 2014 NEMA EIA Regulations (as amended).

### 4.4.8 Technical Scoping with the Project Proponent and EIA Team

The scoping process has been designed to incorporate two complementary components: a stakeholder engagement process that includes the relevant authorities and wider I&APs; and a technical process involving the EIA team and the project proponent.

The purpose of the technical scoping process is to draw on the past experience of the EIA team and the project proponent to identify environmental issues and concerns related to the proposed project and confirm that the necessary specialist assessments have been identified. Most of the specialists have worked with the CSIR on several other projects, as well as having experience from EIAs for other renewable energy projects in the Mpumalanga province. The specialists were therefore able to identify issues (as shown in Chapter 6 of this Draft Scoping Report) to be addressed in the EIA Phase based on their experience and knowledge of the area and type of activity. Their inputs have informed the scope and Terms of Reference for the specialist assessments (as included in Chapter 7 of this Draft Scoping Report). The findings of the scoping process with input from the stakeholders and the authorities will inform the specialist assessments, which will only be completed after the 30-day public comment period on the Draft Scoping Report has been finalised.

# 4.4.9 Scoping Report Phase

In terms of Regulation 41 (6) of GN R326 the section below outlines the PPP for this assessment in order to provide potential I&APs, Stakeholders and Organs of State access to information on the project and the opportunity to comment at the various stages of the assessment process.

### 4.4.9.1 Review of the Draft Scoping Report

As noted above, the Draft Scoping Report for the proposed project is currently being released to I&APs, Stakeholders and Organs of State for a 30-day comment period. The section below summarises the PPP for the review of the Draft Scoping Report.

- Database Development and Maintenance: In line with Regulation 41 (2) (b) of GN R326, an initial
  database of potential I&APs was developed for the Scoping and EIA Processes and will be updated
  throughout the process.
- **Site Notice Boards:** As noted in Section 4.4.6 above, notice boards were placed for the proposed project at the project site and at the Secunda Library. A copy of the content of the notice boards is included in Appendix E.1 of this Draft Scoping Report. Proof of placement of the site notice boards will be included in the Final Scoping Report.
- Advertisements to Register Interest: As noted in Section 4.4.8 above, an advertisement will be placed in Afrikaans and English in a local newspaper, i.e., the "Ridge Times") at the commencement of the 30-day comment period for the Draft Scoping Report. A copy of the content of the newspaper advertisements is included in Appendix E.2 of this Draft Scoping Report. Proof of placement of the newspaper advertisements for the release of the Draft Scoping Report will be included in the Final Scoping Report.
- Submission of the Application for EA and Draft Scoping Report to the Mpumalanga DARDLEA: A hard
  copy of the Application Form for EA and a hard copy of the Draft Scoping Report will be submitted to
  the Mpumalanga DARDLEA via courier. Proof of submission of the Draft Scoping Report to the
  Mpumalanga DARDLEA will be included in the Final Scoping Report.
- Letter 1 to I&APs (Release of the Draft Scoping Report for the Vhuvhili SEF): Written notification of the availability of the Draft Scoping Report (i.e., Letter 1) will be sent to all I&APs, stakeholders and Organs of State included on the project database via email, where email addresses are available. This letter will be sent at the commencement of the 30-day review period on the Draft Scoping Report and will include information on the proposed project and notification of the release and availability of the report. Letter 1 will be written in English. Proof of email, as well as copies of the Letter 1 and emails sent will be included in the Final Scoping Report that will be submitted to the Mpumalanga DARDLEA for decision-making.
- **Text Messaging:** SMS texts will also be sent to all I&APs on the database, where cell phone numbers are available, to inform them of the proposed project and how to access the Draft Scoping Report.
- Executive Summary of the Draft Scoping Report: An Executive Summary of the Draft Scoping Report will be emailed to I&APs on the database Rand uploaded to the project website.
- **30-day Comment Period:** As noted above, potential I&APs, including authorities and Organs of State, will be notified via Letter 1, of the 30-day comment and registration period within which to submit comments on the Draft Scoping Report and/or to register on the I&AP database.
- Broader Networks: Where possible, the ward councillor (Ward 5) or Rate Payers Association will be
  contacted to request that they send notifications of the project as well as report availability and the
  Executive Summary via their local networks (such as WhatsApp groups, Neighbourhood Watch groups,
  other social media mechanisms, etc.).
- Availability of Information: The Draft Scoping Report is currently being made available for a 30-day comment period and is being distributed to ensure access to information on the project and to communicate the plan of study for the EIA Phase. The Draft Scoping Report will be uploaded to the project website (i.e. https://www.csir.co.za/environmental-impact-assessment) for I&APs to access it. As a supplementary mechanism, the Draft Scoping Report will also be uploaded to other alternative web-platforms such as Dropbox or Google Drive. If an I&AP cannot access the report via the project website, via the alternative web-platforms such as Dropbox or Google Drive, and if additional

- information is required (other than what is provided in the Executive Summary), then the I&AP can contact the EAP, who will then make an electronic copy available (where feasibly possible).
- Comments Received: A key component of the Scoping and EIA Process is documenting and responding
  to the comments received from I&APs and the authorities. Copies of all comments received during the
  review of the Draft Scoping Report will be included as an Appendix to the Final Scoping Report and in
  the Comments and Responses Report.

## 4.4.10 Compilation of Final Scoping Report for Submission to the Mpumalanga DARDLEA

Following the 30-day commenting period of the Draft Scoping Report and incorporation of the comments received into the report, the Final Scoping Report will be submitted to the Mpumalanga DARDLEA in line with Regulation 21 (1) of the 2014 NEMA EIA Regulations (as amended). A hard copy and electronic copy of the report will be submitted to the Mpumalanga DARDLEA via courier, as recommended by the Mpumalanga DARDLEA.

In line with best practice, I&APs on the project database will be notified via Letter 2 via email (where email addresses are available) of the submission of the Final Scoping Report to the Mpumalanga DARDLEA for decision-making. To ensure ongoing access to information, a copy of the Final Scoping Report that will be submitted for decision-making, will be placed on the project website (i.e. https://www.csir.co.za/environmental-impact-assessment). As a supplementary mechanism, the Final Scoping Report will also be uploaded to other alternative web-platforms such as Dropbox or Google Drive.

The Final Scoping Report that will be submitted for decision-making to the Mpumalanga DARDLEA will include proof of the PPP that was undertaken to inform Organs of State, Stakeholders and I&APs of the availability of the Draft Scoping Report for the 30-day review (as explained above).

The Mpumalanga DARDLEA will have 43 days (from receipt of the Final Scoping Report) to either a) accept the scoping report, with or without conditions, and advise the applicant to proceed with the tasks contemplated in the plan of study for EIA; or b) refuse EA (respectively in line with Regulation 22 (a) and (b) of the 2014 NEMA EIA Regulations, as amended). In line with best practice, I&APs on the project database will be notified via Letter 3 via email (where email addresses are available) of the outcome of the decision-making on the Final Scoping Report and commencement of the EIA Phase.

This step marks the end of the PPP for the Scoping Phase. The PPP for the subsequent EIA Phase is presented in the Plan of Study for the EIA i.e. Chapter 7 of this Draft Scoping Report.

## 4.5 Schedule for the Scoping and EIA Process

The proposed schedule for the Scoping and EIA Processes, based on the legislated EIA timeframes, is presented in Table 4.3. It should be noted that this schedule could be revised during the EIA Process, depending on factors such as the time required for decisions from authorities.

Table 4.3: Provisional Schedule for the proposed Vhuvhili SEF Project

Vov. Mileston on	Duon and Timefuna
Key Milestones	Proposed Timeframe
Project Initiation and Pre-Application Consultation with the	23 May 2022
Mpumalanga DARDLEA	
Prepare Draft Scoping Report and Plan of Study for EIA including	April 2022 to June 2022
specialist inputs for the Vhuvhili SEF EIA Project	
Submit Application Form to Mpumalanga DARDLEA for the	Mid-June 2022
Vhuvhili SEF EIA Project	
Release Draft Scoping Report for the Vhuvhili SEF EIA Project for	Mid-June 2022 to Mid-July 2022
30 day commenting period	
Submit Final Scoping Report for the Vhuvhili SEF EIA Project to the	July 2022
Mpumalanga DARDLEA for Decision-Making	
Mpumalanga DARDLEA to Accept Final Scoping Report for the	August/September 2022
Vhuvhili SEF EIA Project or Refuse EA	
Specialist Assessments for the Vhuvhili SEF EIA Project	May 2022 to June 2022
Prepare Draft EIA Report for the Vhuvhili SEF EIA Project	June 2022 to September 2022
Release Draft EIA Report for the Vhuvhili SEF EIA Project for 30-	End September 2022 to End October 2022
day commenting period	
Submit Final EIA Report for the Vhuvhili SEF EIA Project to	End November 2022
Mpumalanga DARDLEA for Decision-Making	
Mpumalanga DARDLEA Decision-Making on the Final EIA Report	March 2023
and issue of Decision (i.e. grant or refuse EA): 107 days	
EAP to Notify I&APs of Decisions (14 days)	Within 14 days of Environmental Decision
	being issued: March/April 2023