The Development of Grid Connection Infrastructure for the Namas Wind Farm, Northern Cape Province.

Motivation for amendment of Environmental Authorisation

DFFE Ref.: 14/12/16/3/3/1/2032/AM2

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PROJECT DETAILS

Title	:	Grid Connection Infrastructure for the Namas Wind Farm, Northern Cape Province: Motivation for Amendment to the Environmental Authorisation
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Client	:	Genesis Namas Wind (Pty) Ltd
Report Status	:	Report for Authority Decision-making

When used as a reference this report should be cited as: Savannah Environmental (2021) Motivation Report for the Amendment to the Environmental Authorisation for the Grid Connection for the Namas Wind Farm, Northern Cape Province.

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APPENDICES

PURPOSE OF THE REPORT

Genesis Namas Wind (Pty) Ltd were granted Environmental Authorisation (EA) for the proposed construction and operation of grid connection infrastructure for the proposed Namas Wind Farm, near Kleinsee, Northern Cape Province on 26 November 2019 (DFFE ref: 14/12/16/3/3/1/2032). The EA authorised development of a collector substation (known as the Rooivlei Substation), a double-circuit 132kV power line (known as the Rooivlei-Gromis 132kV power line) to connect the Namas Wind Farm to the national grid and other associated infrastructure required for the grid connection solution, such as access tracks/roads and laydown areas. A corridor 300m wide and 22km long (known as the grid connection corridor) was assessed to allow for the optimisation of the grid and associated infrastructure and to accommodate environmental sensitivities.

The EA was subsequently amended in January 2020 to correct an administrative error (DFFE ref: 14/12/16/3/3/1/2032/AM1).

In response to feedback from Eskom Grid Access Unit, Genesis Namas Wind (Pty) Ltd propose the following amendments to the approved EA:

1. Amendment of the co-ordinates of the substation / switching station position to align with the amended Zonnequa Wind Farm EA granted in January 2020.
2. Amendment of the grid connection corridor width from the authorised 300m to 600m.
3. Expansion to the corridor around the Gromis MTS to allow entry to the 132 kV yard from the north.

In terms of Condition 5 of the EA and Chapter 5 of the EIA Regulations of December 2014 (as amended on 08 June 2018), it is possible for an applicant to apply, in writing, to the competent authority for a change or deviation from the project description to be approved. The proposed amendments, on their own, do not constitute any listed activities, although will result in a change in scope of the valid EA. , and will not trigger any new listed activities.

Motivation Report in support of the amendment application on behalf of Genesis Namas Wind. A Part 2 Amendment process as required in terms of Regulation 32 of GN R. 326 is being undertaken. This motivation report has been compiled in accordance with the provisions of Regulation 32 (1) of the EIA Regulations 2014, (as amended), and includes:

- an assessment of all impacts related to the proposed change;
- an evaluation of the advantages and disadvantages associated with the proposed change;
- provision of measures to ensure avoidance, management and mitigation of any impacts associated with such proposed change; and
- identification of any changes required to the EMPr;

This report aims to provide detail pertaining to the impacts and significance of the proposed changes to the grid connection infrastructure corridor and substation co-ordinates in order for interested and affected parties to be informed of the proposed amendments and provide comment, and for the competent authority to be able to reach a decision in this regard. The findings of this report are informed by specialist studies (refer to **Appendix A to F** of this report). This main report must be read together with these specialist studies in order to obtain a complete understanding of the proposed amendment and the implications thereof.

This motivation report was made available to registered and potential interested and affected parties for a 30-day period from 24 May 2021 to 24 June 2021 . The availability of the report was advertised in the Gemsbok newspaper on **19 May 2021** (refer to **Appendix G4**). This document was available for download at www.savannahsa.com.

All comments received and recorded during the 30-day review period have been included, considered and addressed within this Final Motivation Report (refer to Comments & Response Report in **Appendix G5**). This report is submitted for the consideration of the National Department of Forestry, Fisheries, and the Environment (DFFE). Changes made in this Final Motivation Report have been underlined for ease reference.

1. OVERVIEW OF THE AUTHORISED PROJECT

1.1. Location

The authorised grid connection infrastructure for the Namas Wind Farm is located 14km east of Kleinsee in the Northern Cape Province. The site falls within Nama Khoi Local Municipality within the Namakwa District Municipality.

Grid connection infrastructure for the Namas Wind Farm is to be constructed on the following properties:

- Portion 3 of the Farm Zonnekwa 328
- Portion 2 of the Farm Zonnekwa 328
- Portion 1 of the Farm Zonnekwa 326
- Remaining extent of the Farm Zonnekwa 326
- Remaining extent of the Farm Honde Vlei 325
- Remaining extent of the Farm Kannabieduin 324
- Remaining extent of the Farm Sand Kop 322
- Remaining extent of the Farm Mannels Vley 321
- Remaining extent of the Farm Dikgat 195
- Portion 15 of the Farm Dikgat 195
- Remaining Extent of Farm Rooivlei 327

The following infrastructure was authorised following the BA process and amendments (refer to Figure 1.1 below):

- A collector substation (known as the Rooivlei Substation)
- A double circuit 132kV power line (known as the Rooivlei—Gromis 132kV double circuit power line)
- Associated infrastructure such as access tracks/roads and laydown areas.

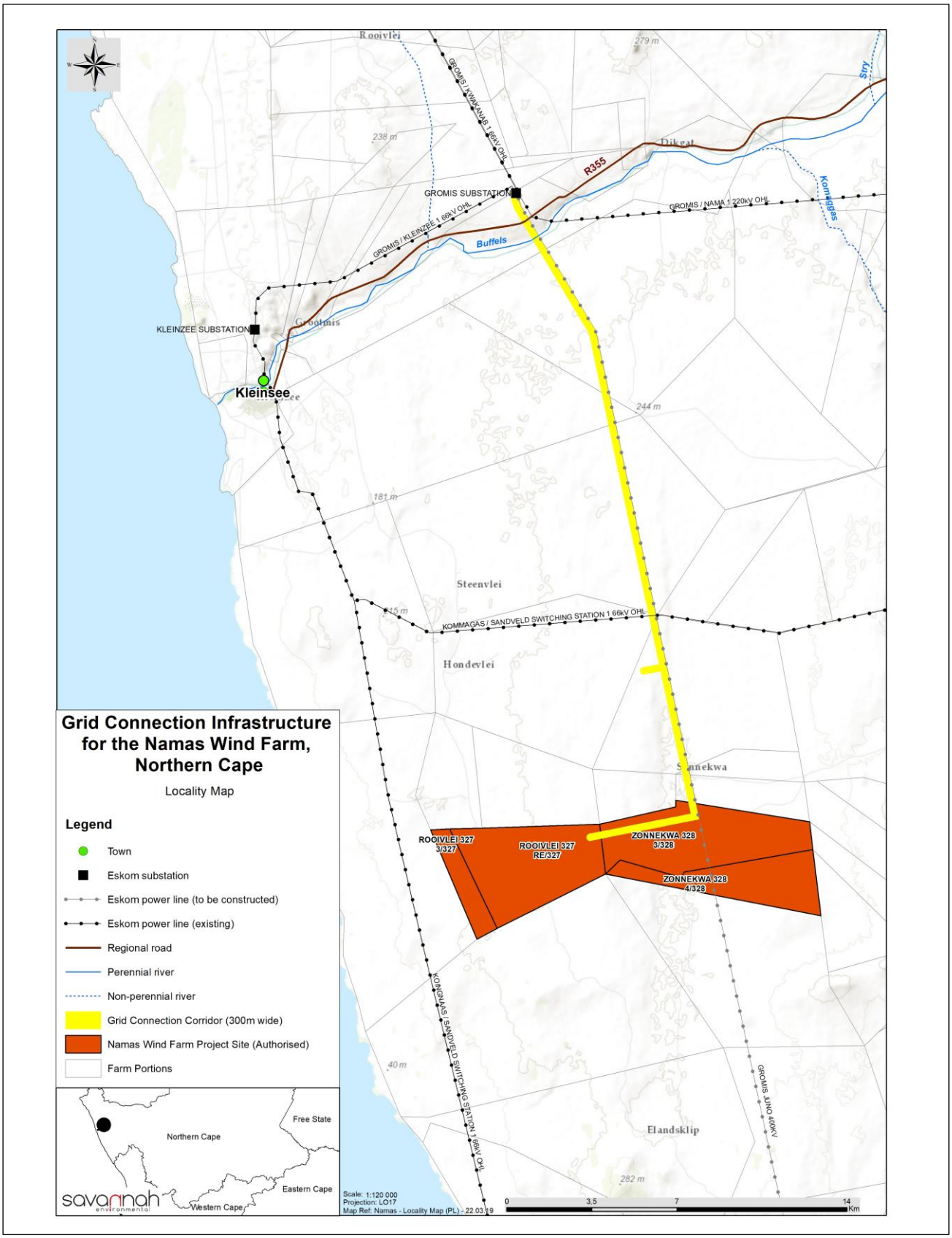

Figure 1.1: Locality map showing the authorised grid connection corridor (300m wide) for the grid connection infrastructure (including the power line and collector substation) for the authorised Namas Wind Farm

1.2. Potential Environmental Impacts as determined through the BA Process

From the specialist investigations undertaken as part of BA process for the grid connection infrastructure (Savannah Environmental, 219), the following environmental impacts relevant to the amendment application were identified:

» Impacts on fauna and flora (biodiversity);
» Impacts on avifauna;
» Impacts on heritage aspects;
» Impacts on visual aspects;
» Impacts on socio-economic aspects.

Key conclusions and recommendations of the **original BA pertinent** to this application:

From the specialist investigations undertaken as part of the BA for the grid connection infrastructure, it was concluded that the majority of impacts are of low significance with the implementation of appropriate mitigation measures. No identified environmental fatal flaws were found to be associated with the implementation of the grid connection infrastructure. Areas of sensitivity identified during the BA process include:

» **Fauna & Flora:**

The majority of the corridor consists of Namaqualand Strandveld considered to be of a low sensitivity. The development of the double-circuit power line through these areas would generate low ecological impacts as this habitat is widely available in the area and has a generally low abundance of species of conservation concern.

The Buffels River in the north of the corridor is considered the most sensitive feature along the grid connection corridor. The river is, however, deeply incised and the power line is likely able to span the river without directly impacting on the bed or the rocky sides of the river. As there are no highly sensitive features along the grid connection corridor that cannot be avoided, the overall impacts associated with the development of the grid connection infrastructure (including both the double-circuit power line and collector substation) would be low. There are no high sensitivity habitats that would be significantly impacted by the development.

» **Avifauna:**

Along the power line corridor, areas of high and medium sensitivity were identified. One area of high sensitivity was identified within the northern section of the corridor. Black Harriers occur and breed along the Buffels River and birds probably forage along the river margins. A harrier nest occurs 11 km east of the corridor. Wetland birds typically fly along river lines and therefore may impact power lines strung over the wetland features.

Medium Sensitivity areas include sections of the corridor where Secretarybirds were observed circling and in courtship flight and a red-data Lanner Falcon was also recorded. Regarding the observations of the Secretarybirds in flight, the specialist has noted that this is not considered to be an issue given that

the proposed double-circuit power line will be located parallel to a 400kV power line (to be constructed), which will increase the visibility of both lines.

» **Heritage:**

The corridor does include a number of archaeological sites and some may require sampling if they are to be disturbed. Impacts to isolated fossils and unmarked graves are possible but cannot be predicted. No other significant impacts are expected. A buffer of 50m was set from the waypoint in order to allow for the area of the site plus a 30m buffer zone. Where infringement of the grid connection infrastructure may occur on these sites a permitting process for the removal of the sites will need to be undertaken.

» **Soils & Agricultural Potential**

There are no high potential soils present within the project site and the soils are of moderate potential at best, due mainly to the sandy texture which will lead to rapid water infiltration and the soils drying out. In addition, the low rainfall in the area means that there is little potential for rain-fed arable agriculture in the area. Arable production would, therefore, be possible only by irrigation, and no indications of any irrigated areas, within and surrounding the grid connection, can be identified on aerial imagery.

» **Summary of BA Findings:**

No environmental fatal flaws were identified to be associated with the proposed grid connection infrastructure for the Namas Wind Farm. Impacts of **low** significance were identified. Where impacts cannot be avoided, appropriate environmental management measures are required to be implemented to mitigate the impact, all impacts associated with the grid connection corridor can be mitigated to acceptable levels. Environmental specifications for the management of potential impacts are detailed within the Environmental Management Programme (EMPr) submitted as part of the BA Report.

1.3. Amendments of the Environmental Authorisation

Following the issuing of the EA in 29 November 2019, one administrative amendment was made to the Environmental Authorisation:

From:
"*Remaining Extent of the Farm Roof Wei 327*"
To:
"*Remaining Extent of the Farm Rooivlei 327*"

2. DETAILS OF THE AMENDMENTS APPLIED FOR

The amendment being applied for relates to grid connection corridor as detailed in the EA dated 26 November 2019, as amended. This requested amendment is as follows:

1. Amendment of the co-ordinates of the substation/ switching station positions to be in line with the amended Facility EAs issued in January 2020.
2. Amendment of the corridor width from the authorised 300m to 600m (to be 300m east and west of the 400 kV line in order to ensure the power line can be constructed in line with Eskom's requirements).
3. The corridor/ envelope around Gromis MTS to be expanded to allow entry to the 132 kV yard from the north, as per Eskom requirements.[1]

This section of the report details the amendments considered within this report and by the specialist investigations (refer to **Appendix A – F**). The scope of the amendment application is detailed below.

2.1. Amendment of the grid connection corridor for the development

It is requested that the corridor coordinates specified on page 4 of the Environmental Authorisation be amended *from*:

CORRIDOR COORDINATES (300M):

	LATITUDE (S)	**LONGITUDE (E)**
Starting Point (Namas Wind Farm Site)	29°50'19.319"	17°13'51.478"
Middle Point	29°43'45.954"	17°12'34.172"
End Point (Existing Gromis Substation	29°35'57.428"	17°10'44.929"

TO:

CORRIDOR COORDINATES (600M):

	Latitude (S)	**Longitude (E)**
Starting Point (Rooivlei Collector Substation)	29°50'20.45"S	17°12'42.75"E
Bend Point 1	29°49'49.15"S	17°15'23.96"E
Bend Point 2	29°47'13.90"S	17°14'46.07"E
Bend Point 3	29°47'4.95"S	17°14'11.03"E
Bend Point 4	29°46'44.52"S	17°14'38.73"E
Bend Point 5	29°39'2.07"S	17°12'45.21"E
End Point (Gromis MTS)	29°36'0.47"S	17°10'46.26"E

Update of the project description on page 5 of the EA from:

- A double-circuit 132kV power line (known as the Rooivlei-Gromis 132kV double-circuit power line)

[1] The authorized grid connection corridor, as per the Basic Assessment Report dated August 2019, included the existing Gromis Substation as part of the assessed corridor.

To

- A double-circuit 132kV power line (known as the Rooivlei-Gromis 132kV double-circuit power line), ***to be constructed within a 600m wide corridor***

Update to the location of the activity on page 3 of 15 of the EA from:

Portion 3 of the Farm Zonnekwa 328
Portion 2 of the Farm Zonnekwa 328
Portion 1 of the Farm Zonnekwa 326
Remaining extent of the Farm Zonnekwa 326
Remaining extent of the Farm Honde Vlei 325
Remaining extent of the Farm Kannabieduin 324
Remaining extent of the Farm Sand Kop 322
Remaining extent of the Farm Mannels Vley 321
Remaining extent of the Farm Dikgat 195
Portion 15 of the Farm Dikgat 195
Remaining Extent of Farm Rooivlei 327

To:
Portion 3 of the Farm Zonnekwa 328
Portion 2 of the Farm Zonnekwa 328
Portion 1 of the Farm Zonnekwa 326
Remaining extent of the Farm Zonnekwa 326
Remaining extent of the Farm Honde Vlei 325
Remaining extent of the Farm Kannabieduin 324
Remaining extent of the Farm Sand Kop 322
Remaining extent of the Farm Mannels Vley 321
Remaining extent of the Farm Dikgat 195
Portion 15 of the Farm Dikgat 195
Remaining Extent of Farm Rooivlei 327
Portion 2 Pienaars Bult No. 317
Portion 4 of the Farm Dikgat 195

Updated SG Code on page 4 (page 6 of 15) of the EA from:

C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**8**	**0**	**0**	**0**	**0**	**3**
C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**8**	**0**	**0**	**0**	**0**	**2**
C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**8**	**0**	**0**	**0**	**0**	**1**
C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**6**	**0**	**0**	**0**	**0**	**0**
C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**5**	**0**	**0**	**0**	**0**	**0**
C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**4**	**0**	**0**	**0**	**0**	**0**
C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**2**	**0**	**0**	**0**	**0**	**0**

C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**1**	**0**	**0**	**0**	**0**	**0**
C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	0	0	0	**1**	**9**	**5**	**0**	**0**	**0**	**1**	**5**
C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	0	0	0	**3**	**2**	**7**	**0**	**0**	**0**	**0**	**0**

To:

C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**8**	**0**	**0**	**0**	**0**	**3**
C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**8**	**0**	**0**	**0**	**0**	**2**
C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**8**	**0**	**0**	**0**	**0**	**1**
C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**6**	**0**	**0**	**0**	**0**	**0**
C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**5**	**0**	**0**	**0**	**0**	**0**
C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**4**	**0**	**0**	**0**	**0**	**0**
C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**2**	**0**	**0**	**0**	**0**	**0**
C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**1**	**0**	**0**	**0**	**0**	**0**
C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	0	0	0	**1**	**9**	**5**	**0**	**0**	**0**	**1**	**5**
C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	0	0	0	**3**	**2**	**7**	**0**	**0**	**0**	**0**	**0**
C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**1**	**7**	**0**	**0**	**0**	**0**	**2**
C	**0**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**9**	**5**	**0**	**0**	**0**	**0**	**4**

Figure 2.1 provides an overview of the layout associated with the proposed amendments.

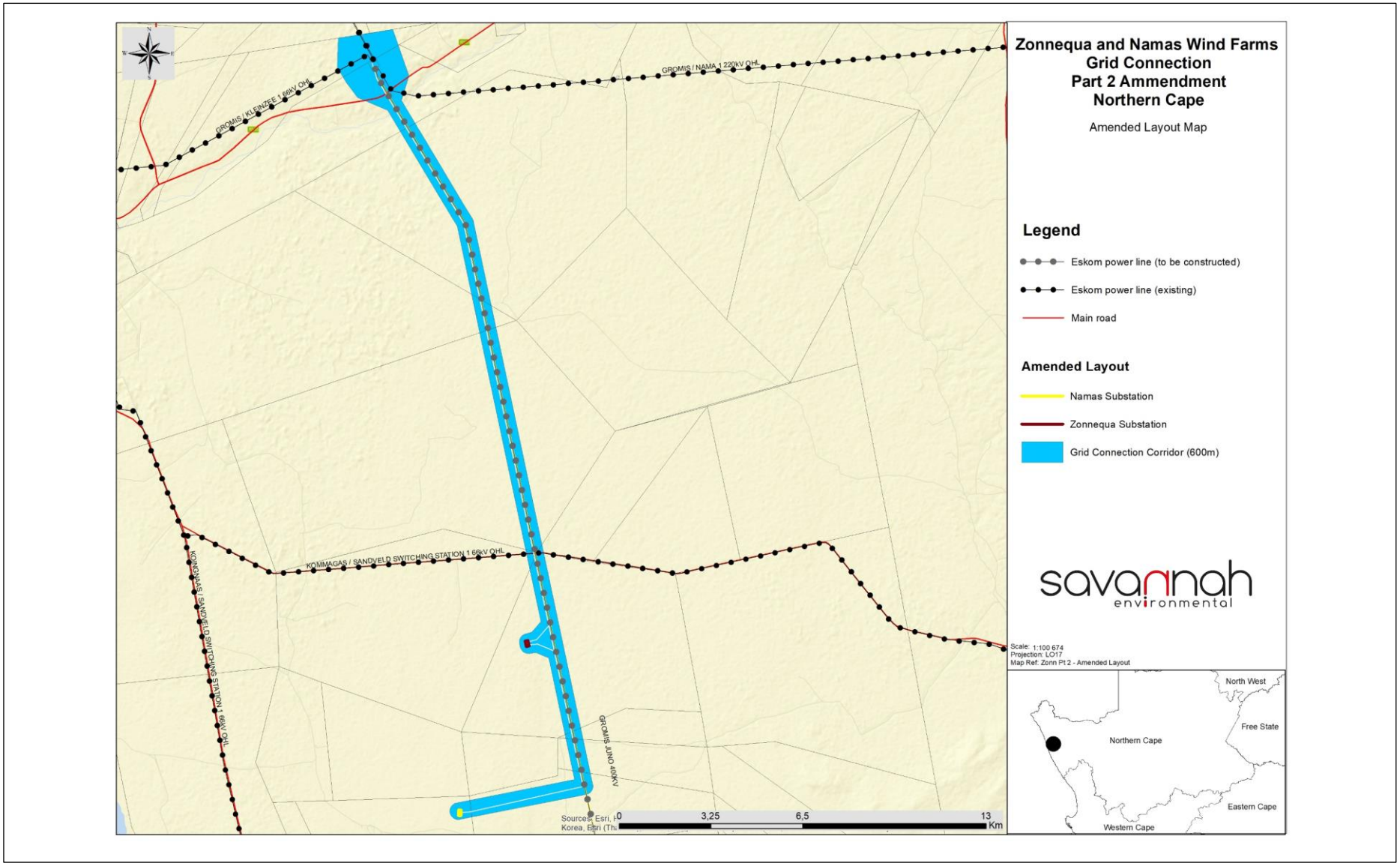

Figure 2.1: Layout map showing the grid connection corridor (600m wide) and realigned substations for the authorised Namas Wind Farm

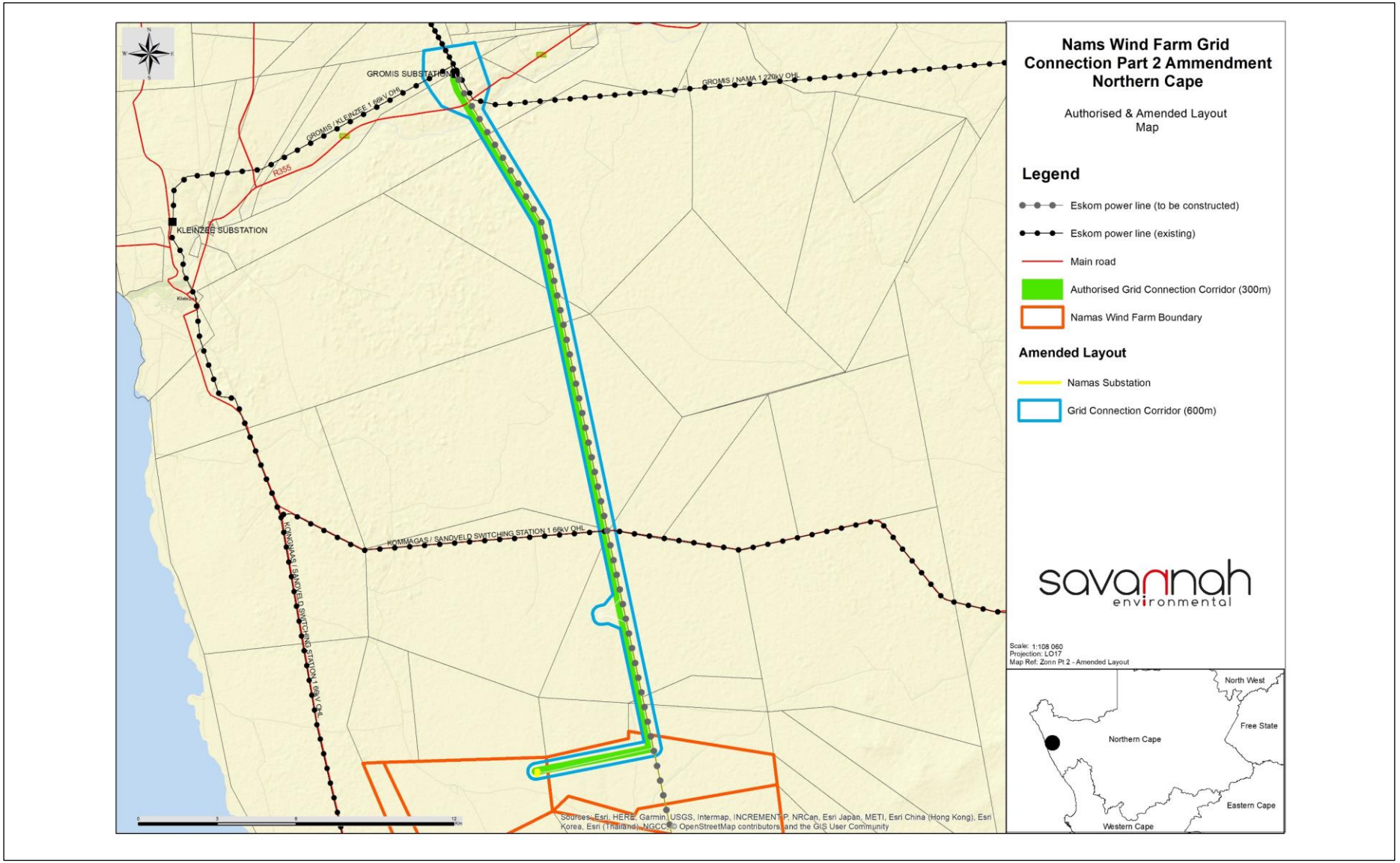

Figure 2.2: Layout map showing the authorised and proposed amended grid connection corridors for the Namas Wind Farm.

3. MOTIVATION FOR THE PROPOSED AMENDMENTS

3.1. Technical Motivation for Amendment of the Grid Connection Infrastructure

The final BAR submitted to DFFE in 2019 assessed the grid connection infrastructure within a 300m corridor from the proposed Rooivlei Collector Substation at the Namas Wind Farm to the existing Gromis MTS.

The technical motivation for widening of the grid connection corridor is to ensure that the 132kV power line can be constructed in line with the technical requirements of Eskom in relation to the 400 kV line. The expanded width is proposed to 600 m (i.e., 300m east and west of the 400 kV line). The expanded corridor width will also allow entry to Gromis MTS 132kV yard from the north. Lastly, it is required that the position of the collector substation to be aligned with the position of the switching station for the Namas Wind Farm.

In overview, the applicant is applying to amend the authorised EA so as to widen the authorised grid corridor width and align the collector substation coordinates with that of the onsite switching station for the wind farm as required from a technical perspective and by Eskom for the grid connection corridor for the Namas Wind Farm.

4. POTENTIAL FOR CHANGE IN THE SIGNIFICANCE OF IMPACTS AS ASSESSED IN THE EIA AS A RESULT OF THE PROPOSED AMENDMENTS

In terms of Regulation 31 of the EIA Regulations 2014 (as amended on 07 April 2017 and 13 July 2018), an environmental authorisation must be amended in terms of Part 2 of Chapter 5 where the amendment will result in an increased level or change in the nature of impact where such level or change in nature of impact was not:

a) Assessed and included in the initial application for environmental authorisation; or
b) Taken into consideration in the initial authorisation.

In this instance, the expanded corridor width and proposed new location of the substation was not assessed in the BA undertaken for the grid connection infrastructure in 2019. The change does not however, on its own, constitute a listed or specified activity.

Following pre-application communication with the DFFE it was confirmed that this application is considered to be a Part 2 amendment as contemplated in terms of Regulation 31 of the EIA Regulations (2014, as amended on 07 April 2017 and 13 July 2018), as amended. In terms of Regulation 32(1)(a)(i), the following section provides an assessment of the impacts related to the proposed changes. Understanding the nature of the proposed amendments and the impacts associated with the project (as assessed in the BA), the following has been considered:

- Impacts on ecology;
- Impacts on avifauna;
- Heritage impacts;
- Visual impacts; and
- Social-economic impacts

The change in the corridor width and collector substation coordinates is expected to have **no effect** on the properties considered as part of the BA process.

The potential for change in the significance and/or nature of impacts based on the proposed amendments as described within this motivation report is discussed below, and detailed in the specialists' assessment addendum letters (as applicable) contained in **Appendix A-F**[2]. No additional mitigation measures were recommended as a result of the proposed amendments, or due to new legislative requirements. This section of the amendment motivation report must be read together with the specialist addendum letters contained in **Appendix A-F** in order for the reader to obtain a complete understanding of the proposed amendments and the implications thereof.

4.1. Impacts on Ecology

The Ecological Specialist Addendum Letter (Appendix A) assessed all impacts related to the proposed amendments, including a comparison with those impacts predicted in the original BA. It was determined

[2] It must be noted that the original specialists who undertook the EIA studies have been used for these assessments as far as possible.

that there are no changes in the overall post-mitigation impacts associated with the change in corridor width and substation location. No new or additional sensitive features are within the amended grid corridor and substation location that were not present within the original corridor. As such, the amendment does not result in an overall increase in the impacts as assessed previously.

The amended layout of the Namas grid connection infrastructure is located in similar areas to the original footprint and there are no High or Very High sensitivity areas (refer to Figure 5.1) which cannot be avoided, which is in-line with the recommendations of the original BA study. As such, there are no additional changes to the mitigation and avoidance measures that were recommended and in the grid BA study.

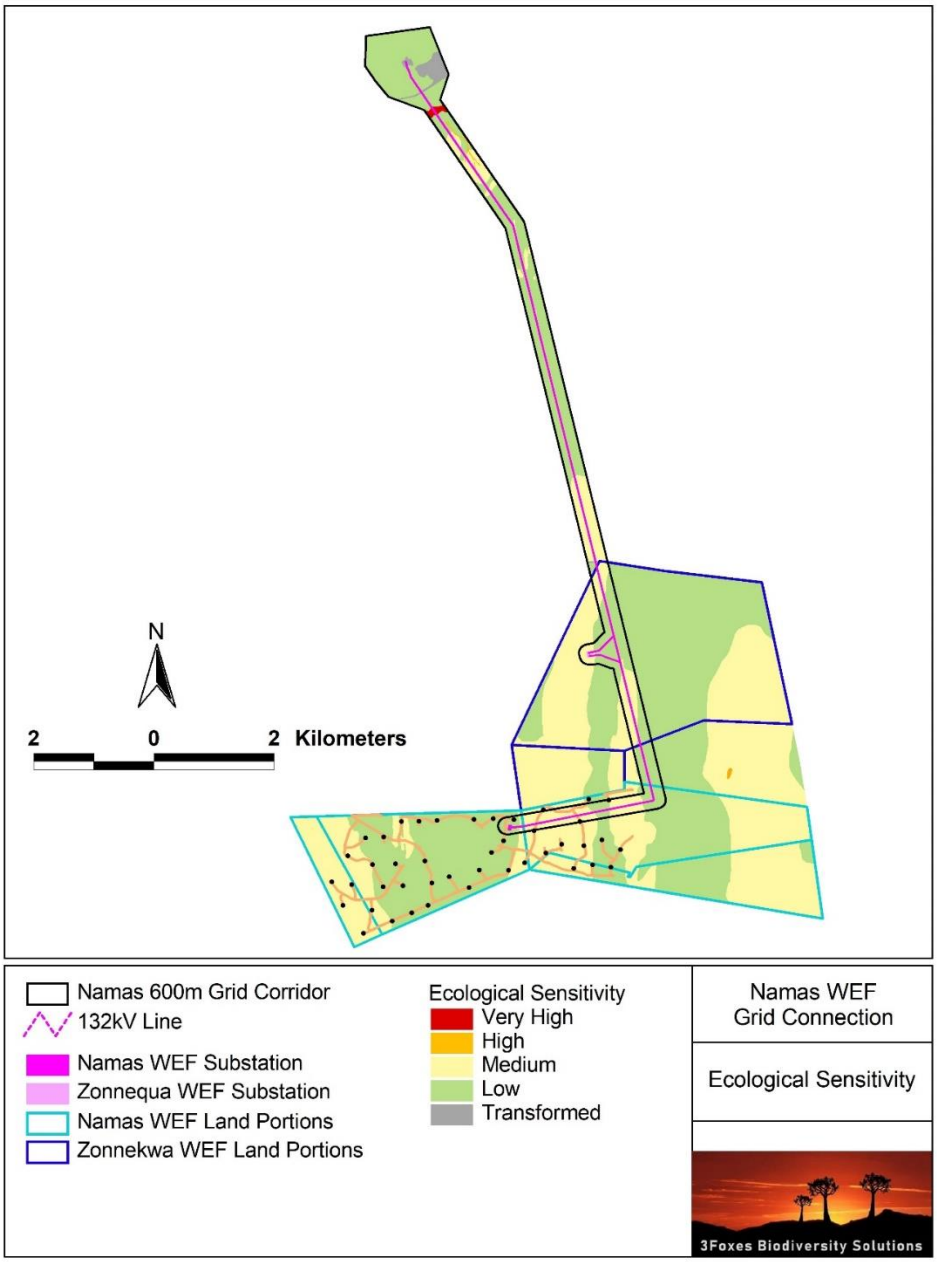

Figure 5.1: The revised sensitivity map for the Namas Grid Corridor, illustrating the amended 600m wide corridor and realigned Rooivlei Substation position.

4.1.1. Cumulative Assessment

The cumulative impacts associated with the amendment are considered to be the same as those as assessed in the BA and thus there would no changes to the overall cumulative impacts associated with the change to the grid connection. All of the mitigation and avoidance measures as recommended in the BA are held up by the current study and should be applicable to the amended layouts as well.

4.1.2. Conclusion

Form an ecological perspective, the overall footprint of the amendment would be the same as for the original grid route and there are no novel sensitive features within the additional expanded grid corridor area, the proposed changes would not increase the assessed impacts associated with the development. The change in corridor width and substation locations would also not increase cumulative impacts associated with the development. No additional mitigation or avoidance measures, beyond those already recommended in the BA study are required for the amendment. As such, there are no reasons to oppose the proposed amendment and it can therefore be supported.

4.2. Impacts on Avifauna

The Avifauna Specialist Addendum Letter (**Appendix B**) included a review of the previously assessed Avian impacts along the grid connection from the Gromis Substation to the Namas and Zonnequa wind farms were assessed (2017-2018) and recommended mitigations. Based on the review the impacts of the proposed amendments were assessed as follows:

1. **Changes to the position of the collector substation**

This will not change the impacts to the avifauna given that Birds & Bats Unlimited's previous report (Simmons and Martins 2018) found no negative impacts with the placement of the wind farm boundaries or facilities within it.

2. **Changes to the corridor width**

Given that the power line exporting the energy from the wind farm will still lie adjacent, and the pylons staggered, to the proposed 400 kV line, the risk to birds, particularly the collision-prone bustards will not change. This is because the alignment next to the proposed 400 kV line will remain (whatever side it is placed – east or west) and that provides increased visibility of the two lines from the staggered pylon effect and the addition of bird diverters to both lines will increase visibility, and decrease avian impacts, further.

3. **Expansion of corridor around Gromis MTS to allow enty to the 132kV yard from the north**

The habitat immediately to the north of the Gromis substation is highly altered and compromised by mining activities and, as such, holds no importance to the local avifauna. Thus, the widening of the corridor to accommodate a line from the north will not impact the impact to the avifauna in the area.

4.2.1. Cumulative impacts

Cumulative impacts from an avifauna perspective are those impacts that will affect the general avian communities in and around the grid connection corridor due to the combined cumulative effect of all the grid infrastructure developments located within the areas. These impacts will be due to collision, avoidance and displacement. The main species of concern from a cumulative perspective are bustards as indicated in the FBAR (2019). Cumulative impacts would be expected to remain unchanged from the cumulative impacts identified within the FBAR (2019).

4.2.2. Conclusion

The specialist concluded that no changes would occur to the originally authorised alignments and corridors in terms of any increased impact to the avifauna. For all other suggested amendments there will be no negative effect on the collision-prone birds and thus no objections to the proposed changes. As there would not be any changes to the assessed impacts, the amendment is supported from an avifaunal perspective.

4.3. Soils & Agricultural Potential Impacts

Based on the review of the previous soil investigation in support of the proposed Namas Wind Energy Facility the specialist Soils and Agricultural Addendum Letter (**Appendix C**) assessed the proposed amendments as follows:

Amendment 1 – changing the location of the substations and/or switching stations will not have a significant impact. As defined in the original reports, the soils are sandy, with a very low prevailing rainfall so there is no agricultural potential to speak of. As long as the mitigation measures in respect of possible disturbance of the topsoil cover are adhered to the impact/s will not change.

Amendment 2 – widening of the corridor will also not change the impacts. The nature of the infrastructure is such that the tower footprints are small and isolated. The construction and maintenance of any type of access road will be subject to the same mitigation measures as referred to above.

Amendment 3 – the expansion of the footprint of the grid connections to the Gromis substation will involve a few hectares at most. There will be no significant loss of agricultural land and the same mitigation measures regarding any excavation or surface disturbance will apply.

4.3.1. Cumulative Assessment

Cumulative impacts to soils and agricultural potential likely to be low, as all soil-related aspects will be confined to the corridor, and the prevailing agricultural potential in the area is low.

4.3.2. Conclusion

The specialist concluded that no changes would occur to the originally authorised alignments and corridors in terms of any increased impact to the avifauna. For all other suggested amendments there will be no negative effect on the collision-prone birds and thus no objections to the proposed changes. As there would not be any changes to the assessed impacts, the amendment is supported from an avifaunal perspective.

4.4. Heritage Impact

The Heritage Specialist Addendum Letter (Appendix D) indicated that since the corridor is wider than that which previously assessed, there are now more heritage sites included within it (see Figure 5.2). However, it is important to note that the nature of the sites and their general cultural significance is no different to that which was previously identified in the previous HIA (2019). Also, the probability of impacts will remain the same because the footprint required for construction of the power line and collector substation will not change. The impact assessment for archaeology thus remains identical to that originally predicted (medium negative before mitigation and low negative after mitigation).

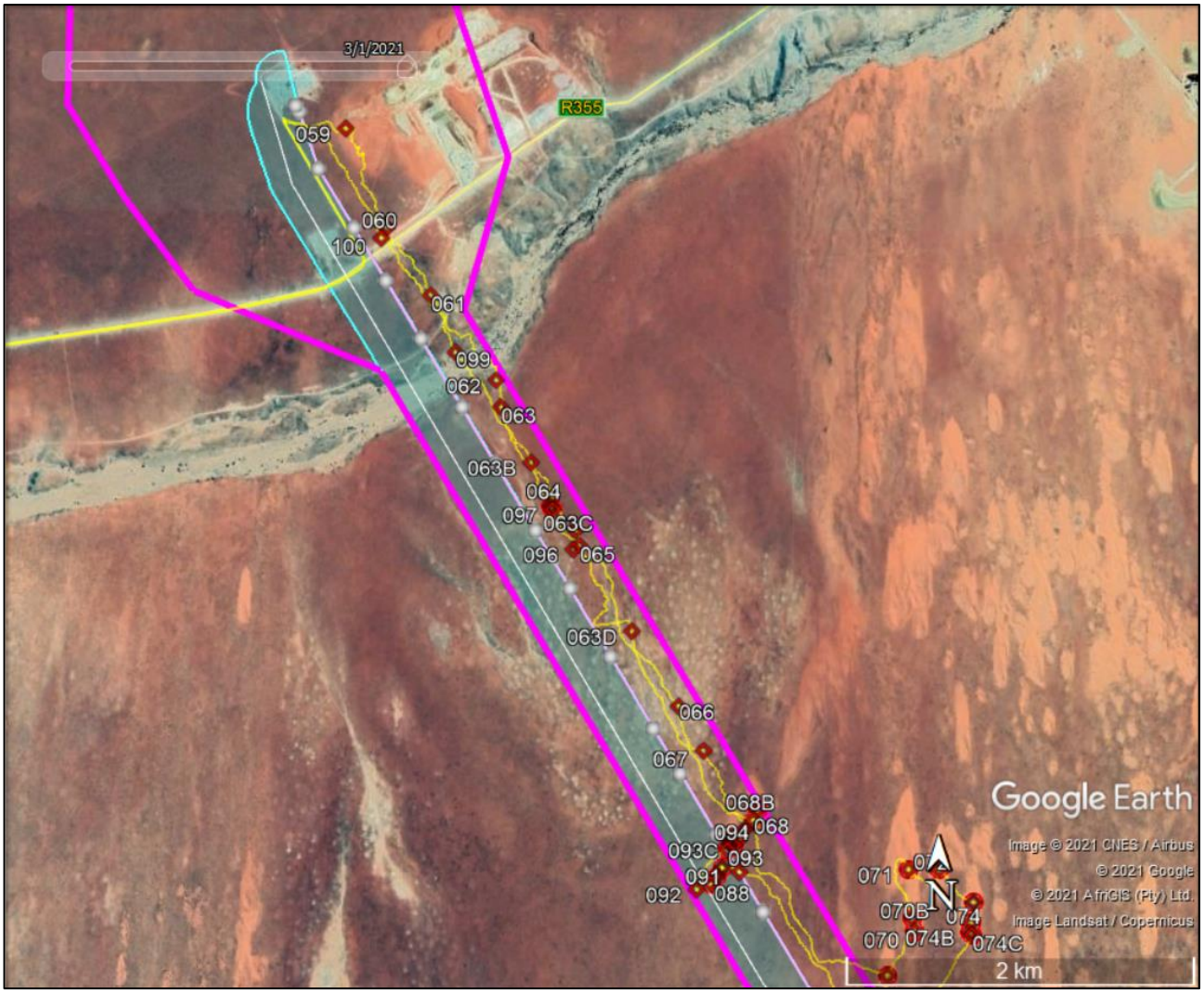

Figure 5.2: Map showing the northern end of the new corridor (pink outline) compared to the original corridor (shaded turquoise). Archaeological sites are marked by numbered symbols with those requiring mitigation if they are impacted having 50m radius circles around their waypoints. The thin white line is an indicative preferred alignment within the corridor and the pink line with grey dots is the soon-to-be constructed 400 kV power line

4.4.1. Cumulative Assessment

No cumulative impacts were identified from a heritage perspective as a result of the proposed amendments.

4.4.2. Conclusion

The assessments for all aspects of heritage (i.e., palaeontology, graves and the cultural landscape) are not affected in any way by the proposed corridor change and the proposed amendments will not result in any new or unexpected impacts to heritage resources. All recommendations in the original HIA must thus also remain identical.

4.5. Visual Impacts

The Visual Specialist Amendment Letter (Appendix E) indicated that the proposed amendments will not alter the area of potential visual exposure and is therefore not expected to alter the influence of the grid connection infrastructure on areas of higher viewer incidence (observers traveling along the national, arterial/main, or major secondary roads within the region) or potential sensitive visual receptors (residents of homesteads in close proximity to the grid connection infrastructure).

In consideration of the proposed amendments, there are no (zero) changes to the significance ratings compared with the original VIA reports and no additional visual impacts are envisaged. In addition to this, no new mitigation measures are required.

4.5.1. Cumulative Impacts

No additional cumulative visual impacts were identified by the specialist as a result of the proposed amendments. Therefore, the impacts identified by the Visual Impact Assessment (Du Plessis, 2019) remain unchanged and would be applicable to the proposed amendments.

4.5.2. Conclusion

The proposed amendments are supported from a visual perspective, subject to the conditions and recommendations as stipulated in the original Environmental Authorisation, and according to the Environmental Management Programme and suggested mitigation measures, as provided in the original VIA reports.

4.6. Socio-Economic Impacts

The Social Specialist Amendment Letter (Appendix E) has outlined that no tangible changes to the impacts assessed the previous BA will result from the proposed amendments. The following impacts thus remain unchanged:

- Construction phase impacts
    - Increase in production and GDP-R
    - Creation in temporary employment
- Operational phase impacts
    - Seasonal employment for maintenance of the servitude
- Decommisioning phase impacts
    - Production and earnings due to recyling

4.6.1. Cumulative Impacts

As determined in the original BA Report, negative impacts are only envisaged to be associated with the cumulative effects due to the likelihood of attraction of migrant labour to the area as a result of development of other renewable energy projects in the REDZ. No changes to cumulative impacts will occur as a result of the proposed amendments.

4.6.2. Conclusion

The proposed amendments will not materially alter any of the previously qualified socio-economic impacts identified in previous BA reporting for this study, nor introduce any new impacts that will present any fatal flaws from a socio-economic impact perspective.

5. ADVANTAGES AND DISADVANTAGES OF THE PROPOSED AMENDMENTS

In terms of Regulation 32(1)(a)(ii), this section provides details of the advantages and disadvantages of the proposed amendment.

Advantages of the amendment	Disadvantages of the amendment
General	
From a technical perspective these amendments are advantageous as the amendments to the co-ordinates are requested in order to align the Rooivlei collector substation placement with the position of the onsite switching station for the Namas Wind Farm. The wider corridor is also required to comply with Eskom's requirements regarding for the construction of the 132kV in relation to the 400kV transmission line.	None
Ecology	
Overall, from an ecological perspective there are no significant advantages or disadvantages of the changes that would affect the impacts of the line as assessed as part of the original BA. Impacts would be similar to the authorised route and there are no new or additional features that may be impacted by the proposed amendments.	
Avifauna	
From an avifaunal perspective, there are no particular advantages or disadvantages of the amended corridor and substation realignment.	
Soils & Agriculture	
From a soils and agricultural perspective, there are no particular advantages or disadvantages of the amended corridor and substation realignment.	
Heritage	
From a heritage perspective, there are no particular advantages or disadvantages of the amended corridor. Although more sites are included within it, the probability of impacts remains the same as initially determined in the FBAR.	
Visual	
The proposed amendments are expected to have a neutral effect from a visual impact perspective i.e. no advantages or disadvantages are expected.	
Socio-Economic	
The developer has indicated that the proposed changes will deviate the power line at the starting point in order to reduce the power line length and resolve any potential issues with line losses. Avoidance of line losses will ensure that the positive socio-economic impacts can be sustained without interruption	None

Based on the above, it can be concluded that the proposed amendment does not result in any disadvantage from an environmental and technical perspective.

6. REQUIREMENTS FOR ADDITIONAL MITIGATION AS A RESULT OF THE PROPOSED AMENDMENTS

As required in terms of Regulation 32(1)(a)(iii), consideration was given to the requirement for additional measures to ensure avoidance, management and mitigation of impacts associated with the proposed change. From the specialist inputs provided into this amendment motivation, it is concluded that no mitigation measures, over and above than those proposed in the BA process would be required to manage potential impacts within acceptable levels.

7. PUBLIC PARTICIPATION

A public participation process has been conducted in support of a Part Two amendment application for amendment of the Environmental Authorisation for the Grid Connection Infrastructure for the Namas Wind Farm, Northern Cape Province. This public participation process included:

- Placement of site notices has been undertaken during the review period and proof of placement has been include in Appendix G4 with the final submission of the motivation report .
- The draft motivation report was made available for public review on www.savannahsa.com from **24 May 2021 to 24 June 2021**
- Written notification to potential and registered I&APs regarding the availability of the amendment motivation report was distributed on **24 May 20201** (refer to **Appendix G2**).
- Advertisements were placed in the Gemsbok newspaper on **19 May 2021** (refer to **Appendix G4**)
- Upload of all project documentation onto Savannah Environmental's stakeholder engagement portal

Comments received during the public review period have been included in the final submission to the DFFE for consideration in the decision-making process. Comments have been included and responded to in the Comments and Responses Report (included as **Appendix G5**). Proof of attempts made to obtain comments from relevant Organs of State and key stakeholders have been included in **Appendix G3**.

8. CONCLUSION AND RECOMMENDATION

Based on the specialist findings, it is concluded that the proposed amendments to corridor width and alignment of collector substation position is not expected to result in an increase to the significance ratings or change in nature for the identified potential impacts from that predicted within the BA. All impact ratings remain the same and no other new impacts have been identified to be associated with the proposed amendments. The mitigation measures described in the original EIA document are adequate to manage the expected impacts for the project. In addition, the amendment in itself does not constitute a listed activity.

Given the above, it is recommended that the authorised grid connection corridor width and coordinates in the Environmental Authorisation be amended to reflect the expanded corridor width as well as realigned collector substation position, as detailed in Chapter 2 of this Motivation Report.

Taking into consideration the conclusions of the studies undertaken for the proposed amendment (as detailed in **Appendix A – F), it is concluded that this amendment is considered acceptable from an environmental perspective, provided that the original mitigation measures stipulated in the EMPr are implemented**.