



AMENDMENT OF ENVIRONMENTAL AUTHORISATION



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ENVIRONMENTAL AND SOCIAL ADVISORY SERVICES



**THE DEVELOPMENT AND INSTALLATION OF SATELLITE
ANTENNAE AT THE SOUTH AFRICAN NATIONAL SPACE
AGENCY (SANSA) SPACE OPERATIONS ON FARM
HARTEBEESTHOEK 502 JQ, GAUTENG**

AMENDMENT OF ENVIRONMENTAL AUTHORISATION

DEFF REFERENCE: TO BE ASSIGNED
(ORIGINAL GDARD EA REFERENCE – GAUT: 002/09-10/N0227)

Prepared for:



The South African National Space Agency (SANSA)

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CES Report Revision and Tracking Schedule

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EXECUTIVE SUMMARY

The South African National Space Agency (SANSA) Space Operations (formerly known as the CSIR Applications Centre [SAC]) proposes to construct additional satellite antennae and associated infrastructure at the Hartebeesthoek Radio Astronomy Observatory (HartRAO) on Farm Hartebeesthoek 502 JQ, located in the Mogale City Local Municipality in the West Rand District Municipality, Gauteng. This is in fulfilment of their vision to coordinate and integrate national space science and technology programmes and conduct long-term planning and implementation of space-related activities in South Africa. The antenna will be used to track satellites in orbit.

There are already 40 existing antennae present at the site, built up over the previous 60 years. The additional antennae that will be built are an extension of the existing facility. Several sites have been identified for the additional antenna (Figure 1.2). Eighty-nine (89) antennae are planned, each with a footprint of 225m³ and a height between 3-7m. The total area impacted by these antennae will be 1.8 ha. Other associated infrastructure will include the construction of an internal, tarred access roads to the antennae. This will be 4 m wide and up to 244 m in length impacting an area of 0.1 ha. The existing offices on site will be used as a site office during the construction phase. Construction of 22 of the 89 the antennae platforms underway at the north-eastern (Galileo) sites (Figure 1.3), as confirmed during the site visit on 11 June 2020.

Environmental Authorisation Gaut: 002/09-10/N0227 was issued by the Gauteng Department of Agriculture and Rural Development (GDARD) on the 22nd of September 2010 for the development and installation of satellite antennae on Farm Hartebeesthoek 502 JQ. Construction initiated within the two year period within which the commencement of the activity was stipulated in the EA. The construction of new satellite antennae has occurred on a regular basis, with approximately three antennae being constructed per year since the commencement of construction in 2011. The environmental authorisation remains valid due to the absence of a specified validity end date on the authorisation. The Applicant is proposing the following amendments:

- i. A Part 1 Amendment to update the name of the holding entity from CSIR SAC to SANSA Space Operations;
- ii. An amendment in terms of Section 47A of the National Environmental Management Act (NEMA, No. 107 of 1998) to provide clarity and include detailed parameters to the current Environmental Authorisation (EA) by specifying *inter alia* the number of satellites to be constructed on site and the locations earmarked for development. This amendment will also update the listed activities from the 2006 NEMA Environmental Impact Assessment (EIA) Regulations to the 2014 NEMA EIA Regulations (as amended in 2017); and
- iii. An amendment of the Environmental Management Plan (EMP).

The amendment application will be submitted to the National Department of Environment, Forestry and Fisheries (DEFF) for decision making.



The impacts identified and assessed by Tswelopele Environmental (2010) are summarised in below.

Summary of impacts identified by Tswelopele Environmental (2010). Impact(s) marked with an asterisk are anticipated to change in light of the proposed EA amendments and have been revised in this report.

Potential impacts	Significance before mitigation	Significance after mitigation
Construction Phase		
Ground and Surface Water Pollution *	Low	Low
Soil Instability and Erosion	Low	Low
Bird Life & Bird Collision	Medium	Low
Vegetation Destruction/Loss (including wetlands) *	Medium	Low
Safety and Security	Low	Low
Air Pollution	Low	Low
Loss of Faunal Species	Low	Low
Noise Pollution	Low	Low
Traffic Congestion	Low	Low
Operational Phase		
Soil Instability and Erosion	Low	Low
Bird Life & Bird Collision	Medium	Low
Vegetation Destruction/Loss (including wetlands) *	Medium	Low
Loss of Faunal Species	Low	Low
Traffic Congestion	Low	Low

Ecological and Heritage Specialists were requested to conduct assessments and to comment on the proposed amendments. The following is a summary of their conclusions:

- According to the Ecological specialist: *“the nature of the proposed changes to the EA specifications will not have a material change or increase in ecological impacts compared with the original project description, with the exception of the wetland/riparian habitat impacts. All issues identified in the 2010 Ecological Impact Assessment still remain valid and all recommended mitigations identified must still be implemented for all phases of the proposed development.”*
- According to the Heritage specialist: *“based on the available information, it is therefore unlikely that the proposed development will impact on significant heritage resources and as such, there is no heritage objection to the proposed development”*

Due to the location of the southern sites within a wetland, the proposed amendments will affect the significance rating of the following impacts identified and assessed by Tswelopele Environmental (2010) during the construction and operational phases:

- Ground and surface water pollution; and
- Vegetation Destruction/Loss (including wetlands).

Both of these were raised to MODERATE NEGATIVE impacts. The following mitigation measures are recommended for the proposed development:

- Vegetation clearing must be kept to a minimum and must remain in the demarcated areas;



- Areas which are already disturbed should be utilised, such as areas with a low number of SCC, where invasive alien species are present and those that are disturbed due to grazing and poor land management practices;
- Eradication of the already established alien invasive species on site (This should be done during all phases of the project);
- Active management of alien species throughout both the construction and operation phases to prevent their spread into areas where they have not already been established;
- An Alien Invasive Control Programme must be implemented;
- It is recommended that the proposed layout be amended to avoid development on the Class 1 Ridge at the western-most site;
- A formal river and wetland risk assessment using the DWS risk matrix for Section 21(c) and 21(i) water uses will be likely required as part of the Water Use License Application to inform whether the project can receive a General Authorization (GA);
- All mitigation measures must be incorporated into the Environmental Management Plan (EMP).

It is the opinion of the EAP that, due to the opinions expressed by the relevant specialists, the above mentioned amendments be authorized on condition that the specialist recommendations be added to the EA and EMP.



INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

The Environmental Impact Assessment (EIA) Regulations, promulgated in terms of the National Environmental Management Act (NEMA, Act no. 107 of 1998 as amended) dated 8th of December 2014, were amended on the 7th of April 2017. In terms of Section 32 of Chapter 5 of the EIA Regulations (2014 and subsequent 2017 amendments), an Amendment Report must accompany the application made in terms of Section 31 and must include –

CONTENTS OF THE AMENDMENT REPORT	
32 (1) The applicant must within 90 days of receipt by the competent authority of the application made in terms of regulation 31, submit to the competent authority –	CHAPTER
(a) A report, reflecting –	
An assessment of all impacts related to the proposed change;	CHAPTER 4
Advantages and disadvantages associated with the proposed change;	CHAPTER 4
Measures to ensure avoidance, management and mitigation of impacts associated with such proposed change; and	CHAPTER 4
Any changes to the EMP.	CHAPTER 3
Which report –	
aa. Had been subjected to a Public Participation Process (PPP), which had been agreed to by the competent authority, and which was appropriate to bring the proposed change to the attention of potential and registered interested and affected parties, including organs of state, which have jurisdiction in respect of any aspect of the relevant activity, and the competent authority, and	CHAPTER 5, APPENDIX D
bb. Reflects the incorporation of comments received, including any comments of the competent authority; or	CHAPTER 5, APPENDIX D
(b) A notification in writing that the report will be submitted within 140 days of receipt of the application by the competent authority, as significant changes have been made or significant new information has been added to the report, which changes or information was not contained in the report consulted on during the initial PPP contemplated in sub-regulation (1) (a) and that the revised report will be subjected to another PPP of at least 30 days.	
32 (2) In the event where sub-regulation (1) (b) applies, the report, which reflects the incorporation of comments received, including any comments of the competent authority, must be submitted to the competent authority within 140 days of receipt of the application by the competent authority.	



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1 INTRODUCTION

The South African National Space Agency (SANSA) Space Operations (formerly known as the CSIR Applications Centre [SAC]) proposes to construct additional satellite antennae and associated infrastructure at the Hartebeesthoek Radio Astronomy Observatory (HartRAO) on Farm Hartebeesthoek 502 JQ, located in the Mogale City Local Municipality in the West Rand District Municipality, Gauteng (Figure 1.1). This is in fulfilment of their vision to coordinate and integrate national space science and technology programmes and conduct long-term planning and implementation of space-related activities in South Africa. The antenna will be used to track satellites in orbit.

There are already 40 existing antennae present at the site, built up over the previous 60 years. The additional antennae that will be built are an extension of the existing facility. Several sites have been identified for the additional antenna (Figure 1.2). Eighty-nine (89) antennae are planned, each with a footprint of 225m³ and a height between 3-7m. The total area impacted by these antennae will be 1.8 ha. Other associated infrastructure will include the construction of an internal, tarred access roads to the antennae. This will be 4 m wide and up to 244 m in length impacting an area of 0.1 ha. The existing offices on site will be used as a site office during the construction phase. Construction of 22 of the 89 the antennae platforms underway at the north-eastern (Galileo) sites (Figure 1.3), as confirmed during the site visit on 11 June 2020.

Environmental Authorisation Gaut: 002/09-10/N0227 (Appendix E) was issued by the Gauteng Department of Agriculture and Rural Development (GDARD) on the 22nd of September 2010 for the development and installation of satellite antennae on Farm Hartebeesthoek 502 JQ. Construction initiated within the two year period within which the commencement of the activity was stipulated in the EA. The construction of new satellite antennae has occurred on a regular basis, with approximately three antennae being constructed per year since the commencement of construction in 2011. The environmental authorisation remains valid due to the absence of a specified validity end date on the authorisation. The Applicant is proposing the following amendments:

- iv. A Part 1 Amendment to update the name of the holding entity from CSIR SAC to SANSA Space Operations;
- v. An amendment in terms of Section 47A of the National Environmental Management Act (NEMA, No. 107 of 1998) to provide clarity and include detailed parameters to the current Environmental Authorisation (EA) by specifying *inter alia* the number of satellites to be constructed on site and the locations earmarked for development. This amendment will also update the listed activities from the 2006 NEMA Environmental Impact Assessment (EIA) Regulations to the 2014 NEMA EIA Regulations (as amended in 2017); and
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The amendment application will be submitted to the National Department of Environment, Forestry and Fisheries (DEFF) for decision making.

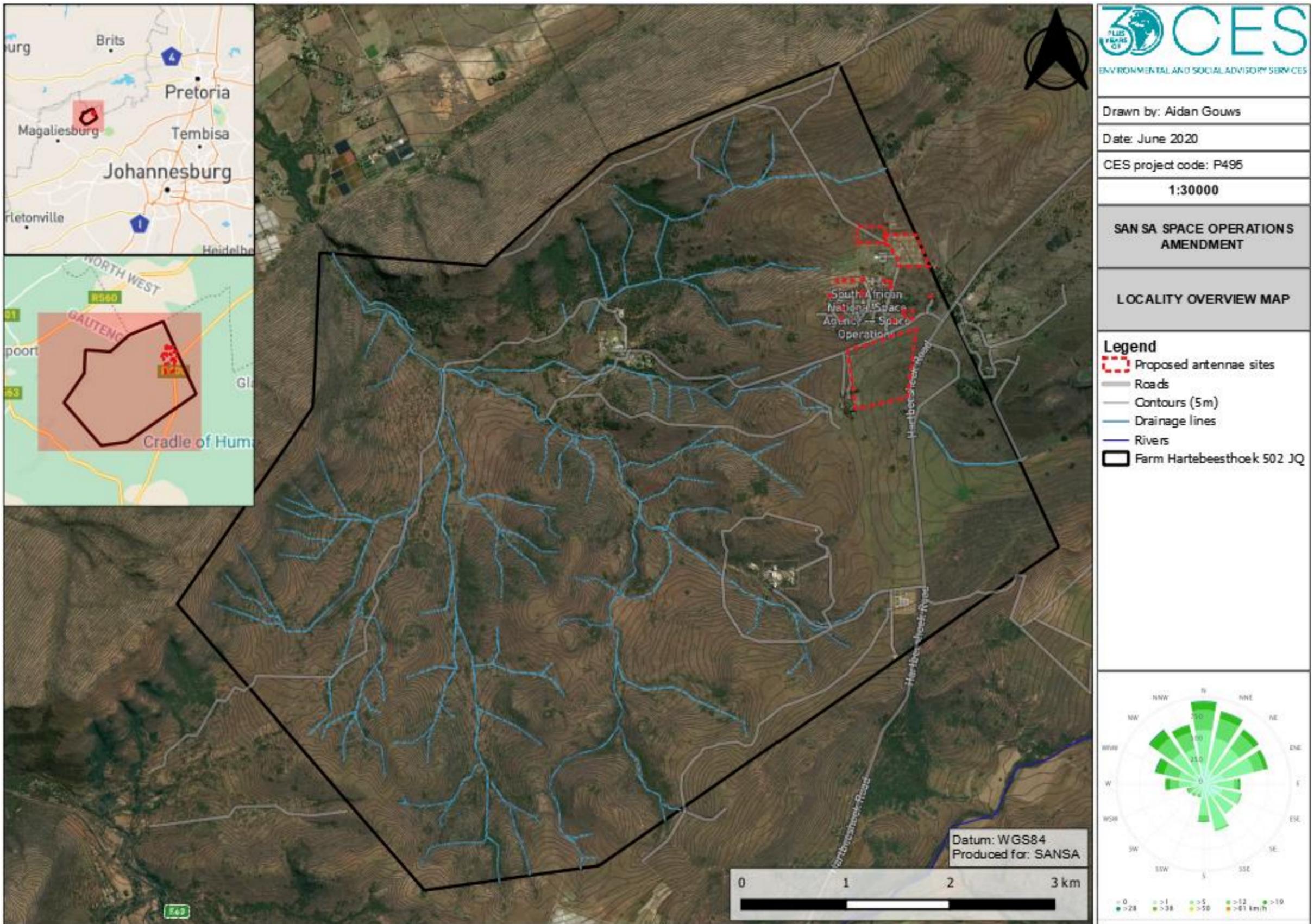


Figure 1.1: Locality of Farm Hartebeesthoek 502 JQ

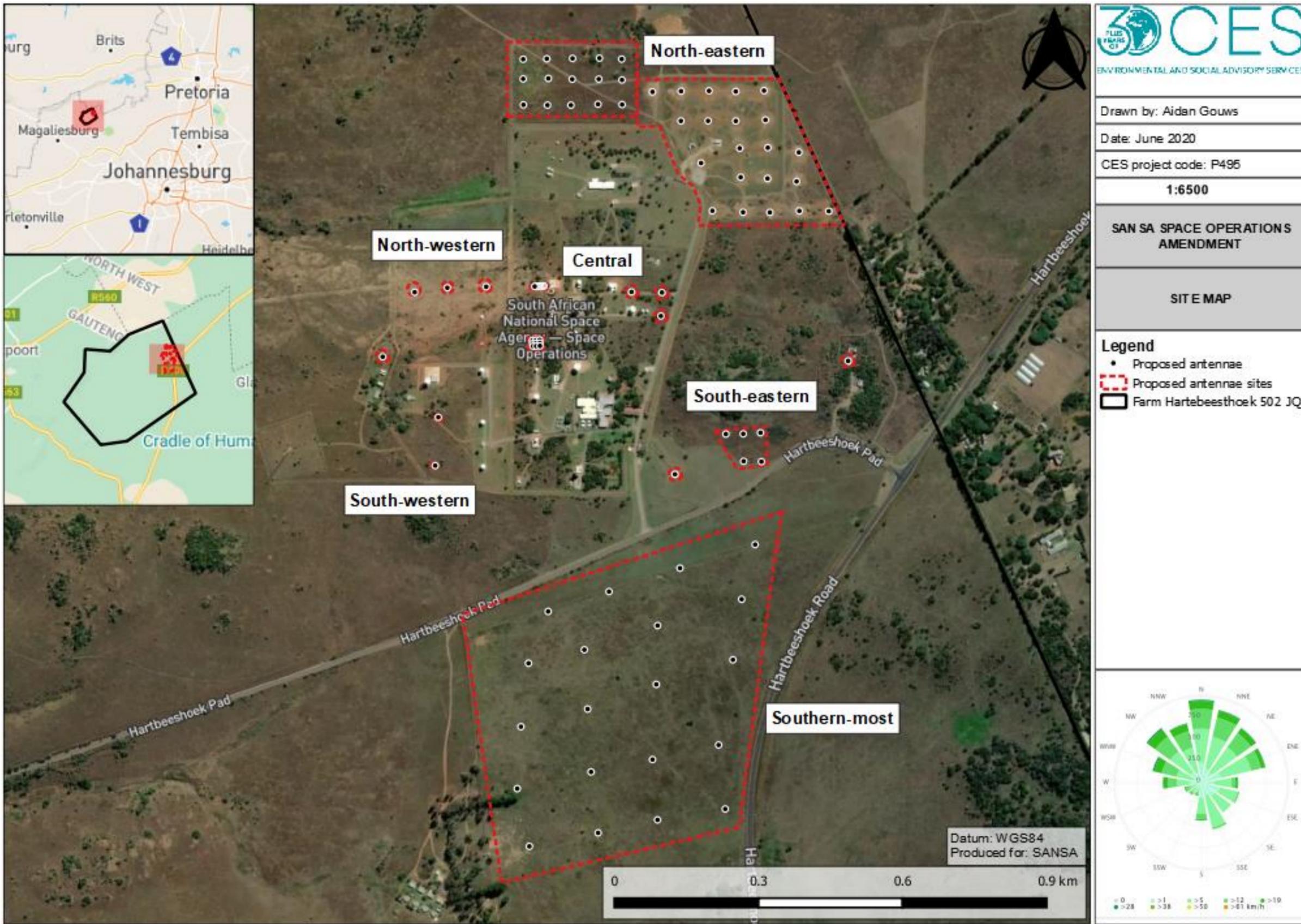
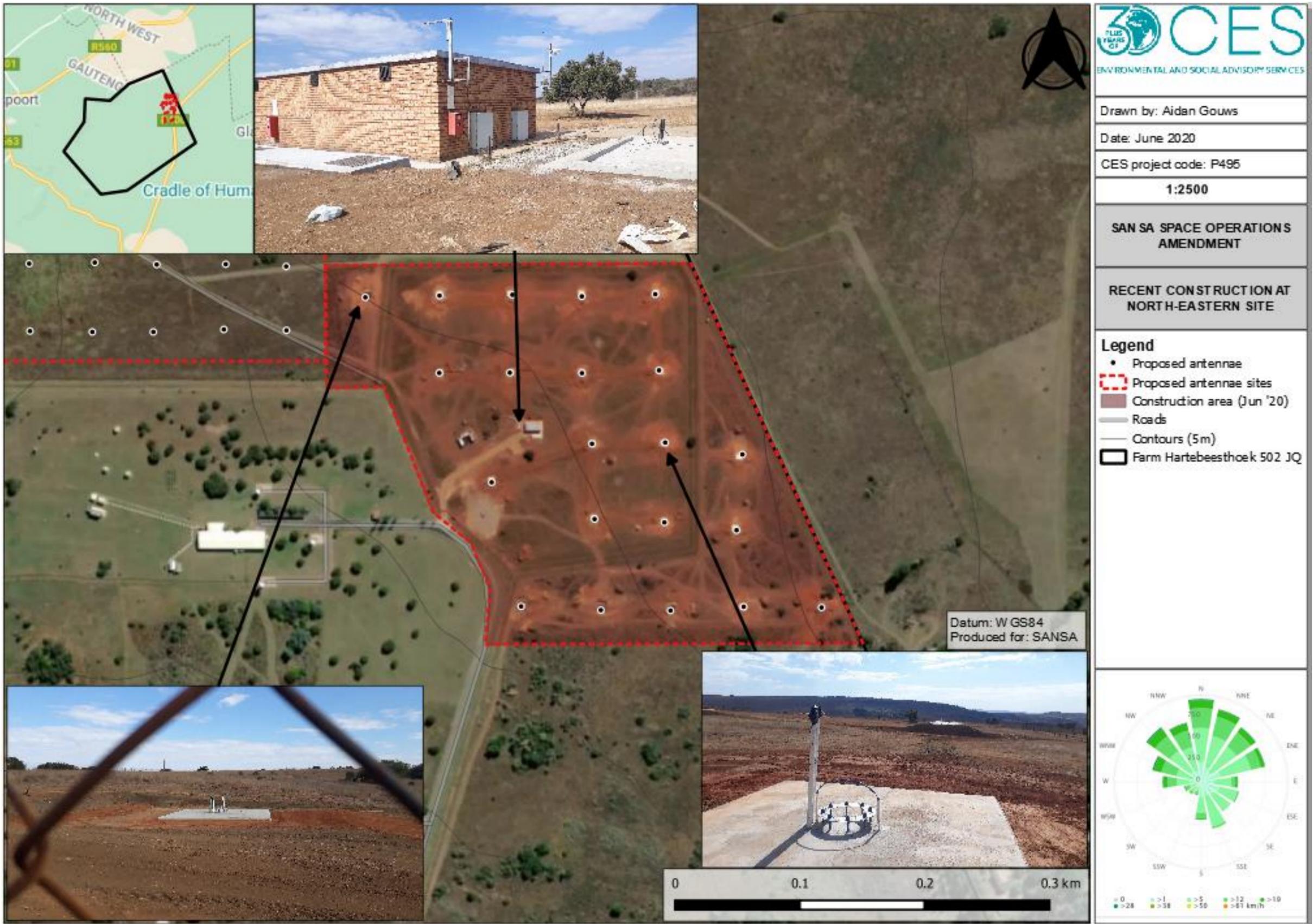


Figure 1.2: Locality of proposed sites earmarked for construction of satellite antenna



Drawn by: Aidan Gouws

Date: June 2020

CES project code: P495

1:2500

SAN SA SPACE OPERATIONS AMENDMENT

RECENT CONSTRUCTION AT NORTH-EASTERN SITE

Legend

- Proposed antennae
- ▭ Proposed antennae sites
- ▭ Construction area (Jun '20)
- Roads
- Contours (5m)
- ▭ Farm Hartebeesthoek 502 JQ

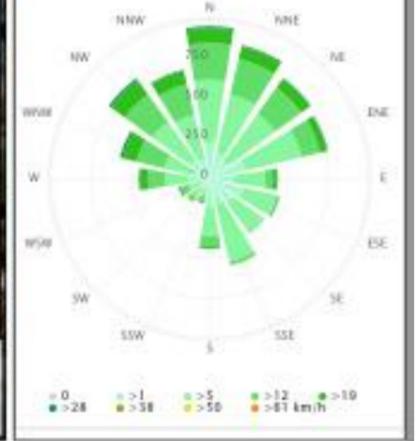


Figure 1.3: Current construction at the north-eastern (Galileo) sites



2 MOTIVATION FOR AMENDMENTS

2.1 AMENDMENTS TO CHANGE APPLICANT DETAILS (PART 1 AMENDMENT)

In 1960, the facility at Hartebeesthoek became one of NASA's 14 Satellite Tracking and Data Acquisition Network (STADAN) stations established around the globe. In 1975, NASA withdrew its involvement due to political instability and within a year, the CSIR established the Satellite Remote Sensing Centre (SRSC) at Hartebeesthoek. In 1980, the French National Space Agency (CNES) tracking station at Hammanskraal outside Pretoria was relocated to Hartebeesthoek and integrated with the SRSC. This became the Satellite Applications Centre (SAC) in a CSIR-wide re-organisation in 1989.

In 2008, the South African National Space Agency Act of 2008 was passed, aiming to bring all of South Africa's space activities under one roof. The act mandated the formation of SANSA, and the agency was officially launched in 2010.

The original EA (Appendix E) was issued to the CSIR SAC on 22 September 2010, prior to the formal re-launch of SANSA. The Part 1 Amendment of the EA is required to accommodate the change in the name of the organisation from the CSIR Satellite Applications Centre (as indicated on the original EA) to the South African National Space Agency (SANSA) Space Operations. The applicant and its capabilities are structurally identical to its predecessor, the only change is in the name of the organisation.

2.2 AMENDMENT IN TERMS OF NEMA SECTION 47A

In terms of NEMA Section 47A. Regulations, legal documents and steps valid under certain circumstances:

- (2) *A regulation or notice, or an authorisation, permit or other document, made or issued in terms of this Act or a specific environmental management Act –*
- (b) *may be amended or replaced without following a procedural requirement of the relevant Act if –*
- (i) *the purpose is to correct an error; and*
 - (ii) *the correction does not change the rights and duties of any person materially.*

An amendment of the environmental authorisation is required to correct errors in the original EA. The scope of works was described in insufficient detail in the original EA and Basic Assessment Report and does not specify the following:

- The number and footprint of satellite antennae authorised to be constructed;
- The specific location of the satellite antennae authorised to be constructed; and
- The layout of the access roads to be constructed.



Consequently, the original EA is vague and open-ended, which if left uncorrected, could lead to unnecessary environmental impact. These and other details are required to provide the needed clarity to the scope of the EA.

In addition, the environmental authorisation was granted under the 2006 NEMA EIA Regulations (GNR 386). These Regulations have since been replaced by the 2014 NEMA Regulations (as amended in 2017, GNR 327 and GNR 324) and several listed activities have changed. Due to changes in the listed activities since the amendment, the authorised activities require updating. The area covered by the existing Environmental Authorisation (Farm Hartebeesthoek 502 JQ) has already been assessed and will not require additional assessment, provided that no development occurs outside the area assessed and that no additional activities (not covered by the 2006 regulations) are triggered.

2.3 AMENDMENTS TO THE ENVIRONMENTAL MANAGEMENT PLAN (EMP)

The EMP (Appendix F) will require amending to align it to the specifications and conditions outlined in the amended EA and to ensure compliance during the construction and operational phases of the proposed satellite antennae and associated infrastructure.



3 PROPOSED AMENDMENTS

Table 3.1 – Table 3.7 outline the amendments proposed by the applicant.

3.1 PART 1 AMENDMENT

Table 3.1: Proposed Part 1 Amendment to EA Gaut: 002/09-10/N0227

ITEM	ASPECT	AUTHORISED	PROPOSED AMENDMENT	CHANGE
Change of EA holder details (Part 1 Amendment)				
1.	Name of entity	CSIR Satellite Applications Centre	SANSA Space operations	Amend to new name of the EA holding entity.
2.	Registered address	Meiring Naude Road Lynwood Pretoria	Farm 502 JQ Hartebeeshoek PO Box 484 Silverton 0127 Gauteng	Amend entity address.

3.2 AMENDMENT IN TERMS OF NEMA SECTION 47A

Table 3.2: Proposed Amendment to EA Gaut: 002/09-10/N0227 in terms of NEMA Section 47A

ITEM	ASPECT	AUTHORISED	PROPOSED AMENDMENT	CHANGE
Validity of the authorisation				
1.	Competent Authority	GDARD	DEFF	Amend the competent authority to the National Department.
2.	Commencement of construction activity	Within two (2) years of the issuing of the EA.	Within two years of the issuing of the EA or amendment to the EA	Update the commencement of construction activity to include date of issuing of EA or EA amendment.



ITEM	ASPECT	AUTHORISED	PROPOSED AMENDMENT	CHANGE
3.	Validity period of the EA	Unspecified	20 years	Specify the length of the EA validity period.
Technical specifications of the antennae				
4.	Height of antenna	Unspecified in EA. Greater/less than 21 m according to the BAR.	6 – 18 m	Specify the height of antennae.
5.	Number of satellite antennae	Unspecified	89	Specify the number of satellite antennae.
Footprint of the development				
6.	Footprint per antenna	Unspecified	225 m ²	Specify the footprint per antenna
7.	Total footprint of antennae	Unspecified	18 225 m ²	Specify the total footprint of antennae
8.	Access roads	Unspecified in EA. Internal service roads exceeding 4 m in width. Length and footprint unspecified.	A 244 m long, 4 m wide access road, covering an area of 976 m ² .	Specify the length, width and footprint of the access roads.
9.	Total footprint of development	Implied to be the full extent of the farm (3 186.9 ha)	19 201 m ²	Delineate the sites and footprints earmarked for the construction of the antennae.
10.	Extent of the development	Figure 1.1	Figure 1.2	
11.	Construction site camp / laydown area	Unspecified	SANSA will use an existing laydown area on the farm for all phases of construction.	Specify and delineate the laydown area.
Environmental considerations				
12.	Significant Environmental Sensitivities	No significant environmental sensitivities.	Threatened ecosystem: Witwatersberg Mountain Bushveld (EN).	Amend to acknowledge sensitive environments as per the ecologist opinion letter.
			Critical Biodiversity Area (CBA) and Ecological Support Area (ESA).	
13.	Authorised activities	Unspecified in EA. Refer to Basic Assessment Report and Table 1.3 below.	Refer to Table 1.3 below.	Include authorised listed activities in the amended EA. Update these to the 2014 NEMA EIA Regulations.



3.2.1 Authorised Listed Activities

Table 3.3 provides the listed activities, which were authorised under the 2006 NEMA EIA Regulations for the proposed CSIR SAC (now SANSa Space Operations) Project, as extracted from the Basic Assessment Report (dated March 2010).

Table 3.3: Authorised listed activities under the 2006 NEMA EIA Regulations

2006 NEMA EIA REGULATIONS
<p><i>GNR 386 Listing 1</i></p> <p>14) The construction of masts of any material or type and of any height, including those used for telecommunication broadcasting and radio transmission, but excluding –</p> <ul style="list-style-type: none"> (a) masts of 15 metres and lower exclusively used <ul style="list-style-type: none"> (i) by radio amateurs; or (ii) for lighting purposes (b) flag poles; and (c) lightning conductor poles.
<p><i>GNR 386 Listing 1</i></p> <p>15) The construction of a road that is wider than 4 metres or that has a reserve wider than 6 metres, excluding roads that fall within the ambit of another listed activity or which are access roads of less than 30 metres long.</p>
<p><i>GNR 386 Listing 1</i></p> <p>17) Phased activities where any one phase of the activity may be below a threshold specified in this Schedule but where a combination of the phases, including expansions or extensions, will exceed a specified threshold.</p>

3.2.2 Comparison between 2006 and 2014 NEMA EIA Listed Activities

Table 3.4 below lists the authorised activities obtained under the 2006 regulations and compares these to the new 2014 (as amended) regulations as well as providing comment on these.



Table 3.5 below identifies possible triggers that would under the 2014 NEMA EIA Regulations (as amended) that were not present or did not trigger under the 2006 NEMA EIA Regulations. For example, vegetation clearance under Listing 1 (GNR 327, Activity 27) was not triggered for the previous authorisation because the thresholds were higher in the 2006 NEMA EIA Regulations (3 ha). Additionally, vegetation clearance under Listing 3 (GNR 324, Activity 12) was not triggered for the previous authorisation because the listing and activity did not exist at the time of the original authorisation. Therefore, the development will not trigger additional activities for vegetation clearance so long as it stays within the 3 ha threshold established by the 2006 NEMA EIA regulations.



Table 3.4: Comparison between previous authorised activities and the current analogues.

2006 NEMA EIA REGULATIONS	2014 NEMA EIA REGULATIONS (AS AMENDED)	COMMENT
<p>GNR 386 Listing 1</p> <p>14) The construction of masts of any material or type and of any height, including those used for telecommunication broadcasting and radio transmission, but excluding –</p> <ul style="list-style-type: none"> (a) masts of 15 metres and lower exclusively used <ul style="list-style-type: none"> (iii) by radio amateurs; or (iv) for lighting purposes (b) flag poles; and (c) lightning conductor poles. 	<p>GNR 324 Listing 3</p> <p>3. The development of masts or towers of any material or type used for telecommunication broadcasting or radio transmission purposes where the mast or tower—</p> <ul style="list-style-type: none"> (a) is to be placed on a site not previously used for this purpose; and (b) will exceed 15 metres in height— <p>but excluding attachments to existing buildings and masts on rooftops.</p> <p>c. Gauteng</p> <ul style="list-style-type: none"> i. A protected area identified in terms of NEMPAA, excluding conservancies; ii. National Protected Area Expansion Strategy Focus Areas; iii. Gauteng Protected Area Expansion Priority Areas; iv. Sites identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng Conservation Plan or in bioregional plans; v. Sites identified within threatened ecosystems listed in terms of the National Environmental Management Act: Biodiversity Act (Act No. 10 of 2004); vi. Sensitive areas identified in an environmental management framework adopted by the relevant environmental authority; vii. Sites or areas identified in terms of an international convention; 	<p>SANSA intend to build additional antennae.</p> <p>In terms of GNR 324 Activity 1 (a): the entire property portion is currently used for this activity and therefore this point is not triggered.</p> <p>In terms of GNR 324 Activity 1 (b): the proposed satellite antennae that will be built are up to 7 metres (i.e. less than 15m threshold) in height and would therefore not trigger this activity.</p> <p>This activity is not applicable to the proposed development.</p> <p>The proposed sites fall within the following areas:</p> <ul style="list-style-type: none"> i. NEMPAA protected area – Fossil Hominid Sites of SA. ii. NPAES area – Formal Protected Area (Cradle of Humankind World Heritage Site). iii. GPAES – Protected area iv. CBA and ESA – small sections of the proposed sites fall within these areas. v. Threatened Ecosystems – Witwatersberg Skeerpoort Mountain Bushveld (Endangered) vi. Sensitive areas (GPEMF) – Zone 3 High control zone (outside the urban development zone) vii. Sites Identified by an international convention – Cradle of Human Kind World Heritage Site. <p>Although the activity is not triggered, the above sensitive areas have been considered.</p>



2006 NEMA EIA REGULATIONS	2014 NEMA EIA REGULATIONS (AS AMENDED)	COMMENT
<p>GNR 386 Listing 1</p> <p>15) The construction of a road that is wider than 4 metres or that has a reserve wider than 6 metres, excluding roads that fall within the ambit of another listed activity or which are access roads of less than 30 metres long.</p>	<p>GNR 324 Listing 3</p> <p>4. The development of a road wider than 4 metres with a reserve less than 13.5 metres.</p> <p>c. Gauteng</p> <p>i. A protected area identified in terms of NEMPAA, excluding conservancies;</p> <p>ii. National Protected Area Expansion Strategy Focus Areas;</p> <p>iii. Gauteng Protected Area Expansion Priority Areas;</p> <p>iv. Sites identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng Conservation Plan or in bioregional plans;</p> <p>v. Sites identified within threatened ecosystems listed in terms of the National Environmental Management Act: Biodiversity Act (Act No. 10 of 2004);</p> <p>vi. Sensitive areas identified in an environmental management framework adopted by the relevant environmental authority;</p> <p>viii. Important Bird and Biodiversity Area (IBA);</p> <p>ix. Sites or areas identified in terms of an international convention;</p> <p>x. Sites managed as protected areas by provincial authorities, or declared as nature reserves in terms of the Nature Conservation Ordinance (Ordinance 12 of 1983) or the NEMPAA;</p> <p>xi. Sites designated as nature reserves in terms of municipal Spatial Development Frameworks;</p>	<p>SANSA will build access roads to the planned new antennae. These roads will be 4 m wide, approximately 244 m in length with a total area of 0.0976 ha. The road does not occur in a CBA or ESA.</p> <p>The proposed road fall within the following areas:</p> <p>i. NEMPAA protected area – Fossil Hominid Sites of SA.</p> <p>ii. NPAES area – Formal Protected Area (Cradle of Humankind World Heritage Site).</p> <p>iii. GPAES – Protected area</p> <p>v. Threatened Ecosystems – Witwatersberg Skeerpoort Mountain Bushveld (Endangered)</p> <p>vi. Sensitive areas (GPEMF) – Zone 3 High control zone (outside the urban development zone)</p> <p>viii. Important Birding Area – Magaliesburg</p> <p>ix. Sites Identified by an international convention – Cradle of Human Kind World Heritage Site.</p> <p>x. Gauteng Protected Area</p> <p>xi. Mogale City LM SDF – Protected area</p> <p>This activity should be updated to the 2014 Regulations' activity to acknowledge the sensitive environments, without additional authorisation being sought.</p>
<p>GNR 386 Listing 1</p> <p>17) Phased activities where any one phase of the activity may be below a threshold specified in this Schedule but where a combination of the phases, including expansions or extensions, will exceed a specified threshold.</p>	<p>GNR 324 Listing 3</p> <p>26. Phased activities for all activities—</p> <p>i. listed in this Notice and as it applies to a specific geographical area, which commenced on or after the effective date of this Notice; or</p> <p>ii. similarly listed in any of the</p>	<p>Phased construction of satellite antennae as and when required. This activity was authorised in the EA under the 2006 regulations and construction began prior to the implementation of the 2014 regulations.</p>



2006 NEMA EIA REGULATIONS	2014 NEMA EIA REGULATIONS (AS AMENDED)	COMMENT
	<p>previous NEMA notices, and as it applies to a specific geographical area, which commenced on or after the effective date of such previous NEMA Notices—</p> <p>where any phase of the activity was below a threshold but where a combination of the phases, including expansions or extensions, will exceed a specified threshold;</p>	<p>This activity should be updated to the 2014 Regulations' activities to acknowledge the sensitive environments, without additional authorisation being sought.</p>



Table 3.5: Activities not triggered by the 2006 EIA Regulations which would have been triggered by the 2014 EIA Regulations (as amended).

2006 NEMA EIA REGULATIONS	2014 NEMA EIA REGULATIONS (AS AMENDED)	COMMENT
<p>GNR 386 Listing 1</p>	<p>GNR 327 Listing 1</p> <p>27. The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for—</p> <ul style="list-style-type: none"> (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan. 	<p>Vegetation will be cleared over the lifetime of the project as new antennae are installed. This activity would have been triggered because the sum of the antennae footprints and access roads will exceed 1 ha.</p> <p>However, the authorization was granted under the 2006 NEMA EIA Regulations, in which the threshold for indigenous vegetation removal was 3 ha. The total footprint of the proposed development is 1.9201 ha, therefore this activity will not be triggered.</p>
<p>12. The transformation or removal of indigenous vegetation of 3 hectares or more or of any size where the transformation or removal would occur within a critically endangered or an endangered ecosystem listed in terms of section 52 of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004).</p>	<p>GNR 324 Listing 3</p> <p>12. The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</p> <ul style="list-style-type: none"> (c) Gauteng. <ul style="list-style-type: none"> i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; 	<p>This activity was not triggered in the original authorisation because Listing 3 had not been promulgated yet and the threshold for vegetation clearance under the 2006 Regulations was 3 ha. This activity would have been triggered because the sum of the antennae footprints and access roads will exceed 300 m².</p> <p>The proposed sites fall within a threatened ecosystem, the Witwatersberg Skeerpoort Mountain Bushveld (Endangered).</p> <p>However, the authorization was granted under the 2006 NEMA EIA Regulations, in which the threshold for indigenous vegetation removal was 3 ha. The total footprint of the proposed development is 1.9201 ha, therefore this activity will not be triggered.</p>



3.2.3 Updated Listed Activities

Table 3.6 provides the listed activities applicable to the proposed development as per the 2014 NEMA EIA Regulations (as amended).

Table 3.6: 2014 NEMA EIA listed activities applicable to the proposed development

2014 NEMA EIA REGULATIONS (AS AMENDED)
<p><i>GNR 324 Listing 3</i></p> <p>4. The development of a road wider than 4 metres with a reserve less than 13.5 metres.</p> <p>c. Gauteng</p> <ul style="list-style-type: none"> i. A protected area identified in terms of NEMPAA, excluding conservancies; ii. National Protected Area Expansion Strategy Focus Areas; iii. Gauteng Protected Area Expansion Priority Areas; iv. Sites identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng Conservation Plan or in bioregional plans; v. Sites identified within threatened ecosystems listed in terms of the National Environmental Management Act: Biodiversity Act (Act No. 10 of 2004); vi. Sensitive areas identified in an environmental management framework adopted by the relevant environmental authority; viii. Important Bird and Biodiversity Area (IBA); ix. Sites or areas identified in terms of an international convention; x. Sites managed as protected areas by provincial authorities, or declared as nature reserves in terms of the Nature Conservation Ordinance (Ordinance 12 of 1983) or the NEMPAA; xi. Sites designated as nature reserves in terms of municipal Spatial Development Frameworks;
<p><i>GNR 324 Listing 3</i></p> <p>26. Phased activities for all activities—</p> <ul style="list-style-type: none"> i. listed in this Notice and as it applies to a specific geographical area, which commenced on or after the effective date of this Notice; or ii. similarly listed in any of the previous NEMA notices, and as it applies to a specific geographical area, which commenced on or after the effective date of such previous NEMA Notices— <p>where any phase of the activity was below a threshold but where a combination of the phases, including expansions or extensions, will exceed a specified threshold;</p>

Based on the information contained in the two tables above, as per the EA (dated 2010), this amendment does not, on its own, constitute any additional listed activities as per the legislation.



3.3 AMENDMENTS TO THE ENVIRONMENTAL MANAGEMENT PLAN (EMP)

Table 3.7 outlines the proposed amendments to the EMP. Original EMP text is provided in black in the proposed amendments to EMP column. Proposed text deletions from the original EMP are denoted by the strikethrough text and proposed text additions/replacements are underlined.

It is important to note that as part of this amendment process, heritage and ecological specialist studies were undertaken to determine if there were any changes to the landscape since the previous assessment. Refer to section 4 below.

Table 3.7: Proposed amendments to the Environmental Management Plan (EMP).

ITEM	ASPECT	SECTION	PROPOSED AMENDMENTS TO EMP	MOTIVATION
1.	Name of entity	All sections	Council for Scientific and Industrial Research (CSIR) <u>South African National Space Agency (SANSA)</u>	Requires amendment to update the name of the EA holding entity.
2.	Competent Authority / Lead Authority	All sections	Gauteng Department: Agriculture and Rural Development (GDARD) <u>Department of Environment, Forestry and Fisheries (DEFF)</u>	Requires amendment to update the competent authority to the National Department. Due to the change from CSIR SAC to SANSA, the applicant is now considered an organ of state. DEFF is the Competent Authority mandated to process and approve all applications on behalf of organs of state. DEFF is required to provide a decision regarding the proposed project pending comments from GDARD.
3.	Proposed activity and local context	Page 7 (Section 1.3.1)	Future activities proposed by <u>SANSA</u> the CSIR that will take place on the above mentioned Farm will consist of the following:- <ul style="list-style-type: none"> • Installation of several new satellite antennae greater/less than 21 metres in height. • Construction of masts of any material or type and of any height, including those used for telecommunication, broadcasting and radio transmission. 	Requires amendment to clarify the project description, including the activity and local context of the development.



ITEM	ASPECT	SECTION	PROPOSED AMENDMENTS TO EMP	MOTIVATION
			<ul style="list-style-type: none"> • Construction of new buildings in Farm <u>Hartebeesthoek</u> Haartebeesthoek 502 JQ within Mogale Local Municipality for offices and tracking laboratories. • Construction of new internal service roads with width exceeding 4 metres. • New ducting for electrical and signal cables and water supply to new and existing infrastructure. • Construction of storm water drainage from new building to the existing ones. <p><u>SANSA proposes to construct additional satellite antennae and associated infrastructure at the Hartebeesthoek Radio Astronomy Observatory (HartRAO) on Farm Hartebeesthoek 502 JQ, located in the Mogale City Local Municipality in the West Rand District Municipality, Gauteng.</u></p> <p><u>There are already 40 existing antennae present at the site, built up over the previous 60 years. The additional antennae that will be built are an extension of the existing facility. Eight sites have been identified for the additional antenna. The three larger polygons will each have 22 antennae and the five smaller polygons will each have 3 antennae, for a total of 81 planned satellite antennae. Up to 128 antennae are proposed to allow for potential future installations. Each antenna footprint will be approximately 225 m² and their height will range from 3 to 7 m. Other associated infrastructure will include internal, tarred access roads that are 4 m wide and up to 244 m in length, as well as laydown areas. The existing offices on site will be used as a site office during the construction phase.</u></p>	
4.	National and Provincial Acts and Guidelines	Page 13 (Section 1.6)	<p><u>Gauteng Conservation Plan (CPlan) v3.3 (2011)</u> <u>The Gauteng C-Plan represents priority areas for biodiversity conservation in the Gauteng province.</u></p>	Requires amendment to include Gauteng CPlan as a relevant guideline.



ITEM	ASPECT	SECTION	PROPOSED AMENDMENTS TO EMP	MOTIVATION	
			<i>Gauteng Department of Agriculture and Rural Development (GDARD)</i>		
5.	Amended Conditions	EA	Page 19, Section 2 EA Conditions B	[PENDING COMMENTS FROM DEFF ON EA AMENDMENT]	Requires amendment to include the amended EA conditions stipulated by DEFF.
6.	Specialist conditions (Heritage)	-	Page 36, Section 2 Construction E6	<ul style="list-style-type: none"> <u>The Chance Fossil Finds Procedure be implemented during the construction phase of development</u> <u>The presence/absence of the "Hekpoort Palaeosol" and the mapped shales be confirmed through ground-truthing prior to construction activities.</u> <u>Should any heritage resources be unearthed during the course of the development, work must cease and SAHRA must be contacted regarding the appropriate actions to be taken.</u> 	Requires amendment to include the recommendations from the Heritage Specialist following the March 2020 assessment.
7.	Specialist conditions (Heritage)	-	Page 46, Section 2 Heritage Assessment F4		
8.	Specialist conditions (Ecological)	-	Page 34-36, Section 2 Construction, Fauna E4 and Flora E5	<ul style="list-style-type: none"> <u>Vegetation clearing must be kept to a minimum and must remain in the demarcated areas;</u> <u>Areas which are already disturbed should be utilised, such as areas with a low number of SCC, where invasive alien species are present and those that are disturbed due to grazing and poor land management practices;</u> <u>Eradication of the already established alien invasive species on site (This should be done during all phases of the project);</u> <u>Active management of alien species throughout both the construction and operation phases to prevent their spread into areas where they have not already been established;</u> <u>An Alien Invasive Control Programme must be implemented;</u> <u>It is recommended that the proposed layout be amended to Avoid development on the Class 1 Ridge and ESA at the western-most site;</u> 	Requires amendment to include comments from Ecological Specialist following June 2020 assessment.



ITEM	ASPECT	SECTION	PROPOSED AMENDMENTS TO EMP	MOTIVATION
			<ul style="list-style-type: none">• <u>A formal river and wetland risk assessment using the DWS risk matrix for Section 21(c) and 21(i) water uses will be likely required as part of the Water Use License Application to inform whether the project can receive a General Authorization (GA); and</u>• <u>All mitigation measures must be incorporated into the Environmental Management Plan (EMP).</u>• <u>In addition to the above, the mitigation measures recommended in Appendix E of the EnviRoss (2010) Ecological Impact Assessment (p. 122-125) should be adhered to.</u>	



4 ENVIRONMENTAL IMPACTS ASSOCIATED WITH THE PROPOSED AMENDMENTS

4.1 INTRODUCTION

CES identified that there may be possible negative environmental impacts associated with the proposed amendment. In order to determine whether the original impacts would be affected, specialist consultants were consulted and asked to provide specialist comment. The following specialists were consulted:

- Ecologist - CES (Aidan Gouws and Tarryn Martin)
- Heritage Specialist - CTS Heritage (Dominic Stratford and Jenna Lavin)

4.2 ECOLOGIST OPINION

The Ecological Specialist assigned to the original Basic Assessment was EnviRoss CC. CES provided a report with specialist opinion on the potential effects of the proposed changes to the EA. Please refer to the attached report in Appendix B of this report. The vegetation across all proposed antennae sites and their immediate surrounding ranges from near-natural Andesite Mountain Bushveld to variably-modified open grassland with at least some elements of Andesite Mountain Bushveld vegetation, i.e. a “*medium-tall thorny bushveld with a well-developed grassy layer on hill slopes and some valleys with undulating landscapes*” (Mucina and Rutherford, 2018, p. 467). The following sensitive environments were identified (**Error! Reference source not found.**):

- World Heritage Site (WHS) – Entire farm falls within the Cradle of Humankind WHS.
- Endangered ecosystem – Most of the farm is located within an endangered ecosystem, namely the Witwatersberg Skeerpoort Mountain Bushveld.
- Critical Biodiversity Area (CBA) and Ecological Support Area (ESA) – Portions of the proposed antennae construction sites fall within a CBA (~2.22 ha) and an ESA (~5.84 ha) in terms of the Gauteng Conservation Plan (CPlan).
- Class 1 Ridge and buffer – A small portion of one of the proposed sites (~12.9 m²) is situated on a Class 1 Ridge and four of the five smaller sites (~1.24 ha) fall within the 200 m buffer of the Class 1 Ridge.

Of the impacts identified and assessed by EnviRoss (2010), the proposed amendments will only affect the significance of the wetland/riparian zone habitat impacts, namely by increasing the significance from low negative to moderate negative prior to the implementation of mitigation measures. The following mitigation measures were proposed by the ecological specialist:

- Natural wetland and riparian habitat should be avoided demarcate and avoided during the construction phase;
- If wetland sections are to be crossed for vehicular access, this should be limited to existing roadways. No further roadways should be established within naturally-occurring wetland habitat.
- Soil erosion and invasive species must be actively managed.



Based on a review of the original study, the information gained from a desktop assessment and an ecological walk through conducted on 11 June 2020, the nature of the proposed changes to the EA specifications will not have a material change or increase in ecological impacts compared with the original project description, with the exception of the wetland/riparian habitat impacts. All issues identified in the 2010 Ecological Impact Assessment still remain valid and all recommended mitigations identified must still be implemented for all phases of the proposed development.

The following mitigation measures are recommended for the proposed development:

- Vegetation clearing must be kept to a minimum and must remain in the demarcated areas;
- Areas which are already disturbed should be utilised, such as areas with a low number of SCC, where invasive alien species are present and those that are disturbed due to grazing and poor land management practices;
- Eradication of the already established alien invasive species on site (This should be done during all phases of the project);
- Active management of alien species throughout both the construction and operation phases to prevent their spread into areas where they have not already been established; An Alien Invasive Control Programme must be implemented;
- It is recommended that the proposed layout be amended to avoid development on the Class 1 Ridge at the western-most site;
- A formal river and wetland risk assessment using the DWS risk matrix for Section 21(c) and 21(i) water uses will be likely required as part of the Water Use License Application to inform whether the project can receive a General Authorization (GA); and
- All mitigation measures must be incorporated into the Environmental Management Plan (EMP).



4.3 HERITAGE SPECIALIST OPINION

The Heritage Specialist assigned to the original Basic Assessment was M. Murimbika. CTS Heritage conducted a Heritage Impact Assessment to assess the potential effects of the proposed changes to the EA. Please refer to the attached report in Appendix C. The Heritage Specialist concluded the following:

Based on the findings in the attached specialist assessments, it is unlikely that the proposed development will impact on significant heritage resources. The isolated artefacts identified during the archaeological field assessment were determined to be Not Conservation-Worthy and as such, no further archaeological mitigation is recommended for these observations. No cave breccias of potential archaeological significance were identified on the landscape or in any areas surveyed and although the possibility of in situ dolomite exposures in the large Area 6 exists, the landscape geomorphology does not indicate the presence of active or palaeocaves.

Furthermore, there are no objections to the proposed development regarding potential impacts to significant palaeontological resources, however there remains a possibility that the mapped shales in the northern part of the development site, and the “Hekpoort Palaeosol” may be impacted by the proposed development. It is recommended that the presence/absence of these sediments be confirmed through ground-truthing prior to construction activities.

Lastly, the proposed development will not negatively impact the OUV of the WHS as listed in the Nomination Dossier. As already noted, no significant archaeological resources associated with the Cradle of Humankind World Heritage Site will be impacted by the proposed development (see [Archaeological Field Assessment]). In addition, the proposed development is intended to contribute to the body of scientific knowledge regarding the relationship between planet earth and space. No significant Caenozoic breccias were identified in the archaeological field assessment that was conducted. Furthermore, there is existing SANSA infrastructure located on this site, and this site has been earmarked for such development and research from before the designation of this area as part of the Cradle of Humankind World Heritage Site (Murimbika 2010). As such the proposed development will not negatively impact on the integrity or authenticity of the WHS.

Based on the available information, it is therefore unlikely that the proposed development will impact on significant heritage resources and as such, there is no heritage objection to the proposed development, however it is recommended that:

- *The Chance Fossil Finds Procedure be implemented during the construction phase of development*
- *The presence/absence of the “Hekpoort Palaeosol” and the mapped shales be confirmed through ground-truthing prior to construction activities.*
- *Should any heritage resources be unearthed during the course of the development, work must cease and SAHRA must be contacted regarding the appropriate actions to be taken.*



4.4 IMPACT SUMMARY

The impacts identified and assessed by Tswelopele Environmental (2010) are summarised in Table 4.1 below Consult Section E of the Tswelopele Environmental (2010) Basic Assessment Report for the full impact assessment.

Table 4.1: Summary of impacts identified by Tswelopele Environmental (2010). Impact(s) marked with an asterisk are anticipated to change in light of the proposed EA amendments and have been revised in Section 4.5 below.

Potential impacts	Significance before mitigation	Significance after mitigation
Construction Phase		
Ground and Surface Water Pollution *	Low	Low
Soil Instability and Erosion	Low	Low
Bird Life & Bird Collision	Medium	Low
Vegetation Destruction/Loss (including wetlands) *	Medium	Low
Safety and Security	Low	Low
Air Pollution	Low	Low
Loss of Faunal Species	Low	Low
Noise Pollution	Low	Low
Traffic Congestion	Low	Low
Operational Phase		
Soil Instability and Erosion	Low	Low
Bird Life & Bird Collision	Medium	Low
Vegetation Destruction/Loss (including wetlands) *	Medium	Low
Loss of Faunal Species	Low	Low
Traffic Congestion	Low	Low

4.5 CUMULATIVE IMPACTS

Cumulative negative effects when taking the following into consideration:

- Increased storm water runoff during the operational phase due to the increase in paved surfaces, and vegetation loss;
- Ground or Surface water contamination during the construction phase due to vehicles on site and construction and operational waste. This could impact on the surrounding water systems;
- The vegetation clearing, earthworks and alteration of drainage lines will result in the alteration of the vegetation in the immediate area during the construction and operation phase;
- Decreased air quality during the construction phase due to the contribution of vehicle-entrained dust emissions, and motor vehicle emissions; and
- The general visual intrusion caused by the proposed development during the construction and operation phase.

The cumulative negative impacts are however of a minor nature.

Positive cumulative impacts that will result from the proposed development include:



- New Job opportunities;
- Increased economic benefits due to increased capacity within South Africa's Space industry; and
- The proposed development is of a national strategic nature because it has key applications in the Space Technology, Meteorological and Research industry.

4.6 ADVANTAGES AND DISADVANTAGES OF THE PROPOSED AMENDMENT

Table 4.2 summarises the Advantages and Disadvantages of the proposed amendments for the SANSA Space Operations development, based on the assessments made within this report.

Table 4.2: Advantages and Disadvantages associated with the amendment.

ADVANTAGES		DISADVANTAGES	
1.	The updated assessments, as per this EA Amendment Report (and associated specialist assessments) means that the latest policies and guidelines have been considered and incorporated into the EA.	1.	N/A
2.	Updating the EA holder details will ensure that the correct entity (SANSA) is responsible for adhering to the conditions specified in the EA, amendment and EMP.	2.	N/A
3.	Updating the Competent Authority details will ensure that the correct entity (DEFF) is responsible for enforcing to the conditions specified in the EA, amendment and EMP.	3.	N/A
4.	Specifying the validity period of the EA will ensure that the proposed construction of antennae is bound to a timeframe and construction phase impacts do not continue into perpetuity.	4.	Specifying the validity period of the EA will place restrictions on SANSA, their capabilities and the requirements of their clients. Once the EA expires, SANSA will be required to re-apply for authorisation.
5.	Specifying the number of antennae will ensure proposed construction is bound to a maximum number of antennae and construction phase impacts do not continue into perpetuity.	5.	Specifying the number of antennae will place restrictions on SANSA, their capabilities and the requirements of their clients. Should additional numbers be required, SANSA will be required to apply for amendment or a new EA once again.
6.	Delineating the location and footprint of the development will ensure that the proposed construction avoids sensitive areas and does not trigger additional listed activities.	6.	Delineating the location and footprint of the development will place restrictions on SANSA, their capabilities and the requirements of their clients. Should antennae be required in other locations (outside of the delineated areas) and/or the footprint exceeds 3 ha, SANSA will be required to apply for an amendment or a new EA once again.
7.	Due to the reduction in overall scale of the proposed project in this amendment process, the cumulative impact of the development has been reduced.	7.	N/A
8.	Identifying surrounding sensitive areas will ensure that these are avoided and/or the impacts on these areas will be appropriately mitigated.	8.	N/A





5 PUBLIC PARTICIPATION PROCESS

Public consultation is a legal requirement throughout the EIA process. Formal EIA documents are required to be made available for public review, which include the project brief, Draft and Final Amendment Reports, and the decision of the Competent Authority. According to Regulation 41(2) of the NEMA EIA Regulations 2014 (as amended 2017) *“The person conducting a public participation process must take into account any relevant guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of an application or proposed application which is subjected to public participation by:*

5.1 SITE NOTICE

- (a) fixing a notice board at a place conspicuous to and accessible by the public at the boundary, on the fence or along the corridor of—*
- (i) the site where the activity to which the application or proposed application relates is or is to be undertaken; and*
 - (ii) any alternative site.*

During the initial site visit, a site notice was placed at the entrance to the proposed mast site, at the junction between the main tarred road and the access road to the SANSA Space Operations site (see Appendix D1 for proof of placement). The site notice was placed at the following coordinates: 25°53'17.06"S, 27°42'48.58"E.

5.2 STAKEHOLDER IDENTIFICATION AND REGISTERED I&APs

- A proponent or applicant must ensure the opening and maintenance of a register of interested and affected parties and submit such a register to the competent authority, which register must contain the names, contact details and addresses of—*
- (a) all persons who, as a consequence of the public participation process conducted in respect of that application, have submitted written comments or attended meetings with the proponent, applicant or EAP;*
 - (b) all persons who have requested the proponent or applicant, in writing, for their names to be placed on the register; and*
 - (c) all organs of state which have jurisdiction in respect of the activity to which the application relates.*

A comprehensive I&AP register was compiled and is included in Appendix D2. This register included the following parties, among others:

- Immediate neighbours;
- The Department of Environment, Forestry and Fisheries (DEFF); including the following units:
 - Biodiversity Planning and Conservation;
 - Protected Areas Systems Management;
 - National Wildlife Information Management; and



- Biodiversity Specialist Monitoring and Services
- Mogale City Local Municipality, including the Municipal Ward councillor;
- Eskom;
- Gauteng Department of Agriculture and Rural Development (GDARD);
- Department of Mineral Resources (DMR);
- Gauteng Provincial Heritage Resources Authority (PHRA); and
- Department of Water and Sanitation (DWS).

5.3 I&AP AND STAKEHOLDER NOTIFICATIONS

- (b) giving written notice, in any of the manners provided for in section 47 D of the Act, to—*
- (i) the occupiers of the site and, if the proponent or applicant is not the owner or person in control of the site on which the activity is to be undertaken, and to any alternative site where the activity is to be undertaken;*
 - (ii) owners, persons in control of, and occupiers of land adjacent to the site where the activity is or is to be undertaken and to any alternative site where the activity is to be undertaken;*
 - (iii) the municipal councillor of the ward in which the site and alternative site is situated and any organisation of ratepayers that represent the community in the area;*
 - (iv) the municipality which has jurisdiction in the area;*
 - (v) any organ of state having jurisdiction in respect of any aspect of the activity; and*
 - (vi) any other party as required by the competent authority;*

All I&APs will be notified of the availability of the Draft Amendment Report (this report) for public review by means of email and registered mail (notification proofs will be provided in Appendix D3 of the Final Amendment Report).

5.4 NEWSPAPER ADVERTISEMENT

- (c) placing an advertisement in—*
- (i) one local newspaper; or*
 - (ii) any official Gazette that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;*
- (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or district municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official Gazette referred to in paragraph (c)(ii);*

A newspaper advertisement will be placed in the Kormorant local newspaper, in order to notify the general public of the proposed development and availability of the Draft Amendment Report for public review. Proof of placement will be provided in Appendix D4 the Final Amendment Report.



5.5 PUBLIC REVIEW OF DRAFT AMENDMENT REPORT

The Draft Amendment Report will be made available electronically on the CES website. Letters of notification will be emailed and/or posted to the registered I&APs, notifying them of the commencement of the public review period, the availability of the Draft Amendment Report (including the link to the CES website) and providing the contact details (telephone and email) of the EAP.

Additionally, hardcopies of the executive summary of the Draft Amendment Report will be sent via registered post, upon request, to I&APs should they be unable to access the electronic version. The EAP will be able to track the delivery and receipt of the reports through the Post Office website's parcel tracker. I&APs receiving the report Executive Summary via post will be allowed to provide comments via a number of contact options (telephone, post, fax and/or email). The medium of correspondence will be noted in the I&APs register.

5.6 PUBLIC MEETING

It is not compulsory to hold a public meeting in terms of the NEMA EIA Regulations 2014 (as amended 2017). However, should sufficient interest or concern be raised by the public through the public participation process, a VIRTUAL public meeting may be considered. Meetings will be conducted virtually via Microsoft Teams (or alternative), if required. Telephonic meetings will be conducted for I&APs with limited or no internet connectivity, if required.

5.7 ISSUES RAISED BY I&APs

The applicant must ensure that the comments of interested and affected parties are recorded in reports and plans, and that such written comments, including responses, are attached to the reports and plans that are submitted to the competent authority in terms of these regulations.

To date, no formal comments have been issued. A full record of the issues raised by the I&APs, as well as the response by the applicant and EAP, will be kept throughout the duration of the project. A full Issues and Response Trail (IRT) will be included as Appendix D5 of the Final Amendment Report.



6 CONCLUSIONS AND RECOMMENDATIONS

SANSA Space Operations is applying to amend the existing Environmental Authorisation (Gaut: 002/09-10/N0227) for the installation of satellite antennae and associated infrastructure on Farm Hartebeesthoek 502 JQ. The Applicant is proposing the following amendments:

- i. A Part 1 Amendment to update the name of the holding entity from CSIR SAC to SANSA Space Operations;
- ii. An amendment in terms of Section 47A of the National Environmental Management Act (NEMA, No. 107 of 1998) to provide clarity and include detailed parameters to the current Environmental Authorisation (EA) by specifying *inter alia* the number of satellites to be constructed on site and the locations earmarked for development. This amendment will also update the listed activities from the 2006 NEMA Environmental Impact Assessment (EIA) Regulations to the 2014 NEMA EIA Regulations (as amended in 2017); and
- iii. An amendment of the Environmental Management Plan (EMP).

Ecological and Heritage Specialists were requested to conduct assessments and to comment on the proposed amendments. The following is a summary of their conclusions:

- According to the Ecological specialist: *“the nature of the proposed changes to the EA specifications will not have a material change or increase in ecological impacts compared with the original project description, with the exception of the wetland/riparian habitat impacts. All issues identified in the 2010 Ecological Impact Assessment still remain valid and all recommended mitigations identified must still be implemented for all phases of the proposed development.”*
- According to the Heritage specialist: *“based on the available information, it is therefore unlikely that the proposed development will impact on significant heritage resources and as such, there is no heritage objection to the proposed development”*

It is the opinion of the EAP that, due to the opinions expressed by the relevant specialists, the above mentioned amendments be authorized on condition that the specialist recommendations be added to the EA and EMP.



7 REFERENCES

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8 APPENDICES

1. Appendix A – Curriculum Vitae
2. Appendix B – Ecological Impact Assessment
3. Appendix C – Heritage Impact Assessment
4. Appendix D – Public Participation Process
5. Appendix E - Original EA (GAUT: 002/09-10/N0227)
6. Appendix F – Original EMP (Tswelopele Environmental)