



Bergwind Botanical Surveys & Tours CC.

14A Thomson Road

Claremont

Cape Town

7708

19 July 2018

**TO WHOM IT MAY CONCERN**

**THE BOTANICAL STATUS OF THE PROPOSED BORROW PIT SITE ON REMAINDER OF FARM MODDER RIVIER 721, MALMESBURY, SWARTLAND MUNICIPALITY, WESTERN CAPE PROVINCE**

The site of the proposed borrow pit in the farm Modder Rivier was visited on Thursday 21 June 2018. The original vegetation that would have occurred on the site is Swartland Shale Renosterveld. This is a Critically Endangered vegetation type due to extensive loss over its range.

The original vegetation at the site investigated has been completely lost through conversion to cultivation. The site is now within a wheat-field. A portion of the proposed borrow pit has been excavated for testing (test pit) to determine the quality of the material that was confirmed to be laterite. The remaining area is currently under winter wheat. There is also categorically no chance of the site ever being rehabilitated to natural habitat that would resemble the original vegetation type.

The proposed borrow pit site has no botanical sensitivity and development of the site would not trigger any listed activities under the National Environmental Management Act 1998 (Act No. 197 of 1998) as amended in 2014.

Yours sincerely,

**Dr D.J. McDonald Pr Sci Nat  
Botanical Specialist**



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7 May 2019

Rizqah Baker  
SLR Consulting  
Unit 39, Roeland Square  
Cnr Roeland Street and Drury Lane,  
Cape Town,  
8001

Dear Rizqah

**FRESHWATER OPINION ON BORROW PIT ON THE REMAINDER OF FARM MODDER RIVIER 721, NEAR GROTTO BAY**

A borrow pit is proposed on a portion of the Remainder of Farm Modder Rivier 721, near Grotto Bay in the Western Cape (Figure 1). The site is situated east of the R27, West Coast Road on the watershed between a small coastal stream and the larger Modder River that flows to the north of the site. The watercourses are located within the Department of Water and Sanitation's quaternary catchment G21A, in the Berg-Olifants Water Management Area. The access road to Modder Rivier and Groote Pas Farms is located to the south and along the eastern boundary of the site.

The proposed borrow area is located approximately 400m to the east of the small unnamed coastal stream that flows in a south-westerly direction towards the sea while approximately 600m to the east is a smaller unnamed tributary of the Modder River flows in a north-easterly direction to join the Modder River approximately 1.5 km north-east of the site (Figure 2). The site currently comprises of agricultural lands (Figure 3) with a small dam located to the east of the site, on the other side of the access road to the Modder Rivier Farm. The nearby watercourses comprise of narrow channels surrounded by the cultivated fields. These watercourses are only likely to flow for short periods of time following local rainfall events. Past imagery indicates that the site has been cultivated for at least 80 years and that there was no indication of wetland habitat in the earliest aerial imagery taken in 1938 (Figure 4).

The only wetland areas mapped within the surrounding area of the site as Freshwater Ecosystem Priority Area wetland areas comprise of artificial dams and excavations to the east and south-west of the site (Figure 5). The 2017 Western Cape Biodiversity Spatial Plan for the area surrounding the proposed borrow pit (Figure 6) has mapped the site as occurring within the Grotto Bay Private Nature Reserve and within the wider Cape West Coast Biosphere Reserve (Figure 6). No aquatic or terrestrial critical biodiversity areas or ecological support areas are however mapped within the immediate vicinity of the site. The site is located just north of the City of Cape Town boundaries and is thus not covered in the City's Biodiversity Network and wetland mapping.

The adjacent minor watercourses are in a largely to seriously modified ecological state and are considered to be of a low ecological importance and sensitivity. The larger Modder River into which the small watercourse to the east drains has been assessed as part of the Department of Water Affairs desktop assessment undertaken in 2012 and is indicated to be largely modified and of a moderate ecological importance and moderate ecological sensitivity (Attached in Appendix B).

The development plan for the borrow pit (Figure 7) comprises of the following elements:

## **1 Preparation**

1.1 Fencing: No fencing is required around mining area

1.2 Demarcation of mining area: a) White stone beacons will mark demarcated boundary of mining area. b) Testing holes are also located along this boundary.

1.3 Signage: a) Access gates will be clearly marked in order to direct trucks.

1.4 Access and traffic safety: a) Haul Road is to be constructed parallel to existing gravel road which will begin at the proposed access gate location as indicated on plan.

1.5 Clearance of topsoil: a) Topsoil will be removed continuously, with a removal process beginning at the Northern boundary. This will be conducted in a forward direction as indicated by on plan. b) Excavation material will be mined throughout this process as the topsoil is continuously removed.

1.6 Stockpiling: a) Stockpiling is to be located along the front and sides of the excavated area. b) Throughout the stockpiling process, any stockpiled topsoil located at the front of the excavated area, will be moved to the sides. c) After mining material is excavated, topsoil alongside the mining area will be deposited over excavated area.

1.7 Drainage: a) Topography and porous nature of material is such that no additional drainage is necessary.

## **2 Special precautions**

2.1 Dust and noise management: a) No special noise management required b) No special dust management required c) No excessive use of water over mining area and road required

2.2 Protection of Flora and Fauna: a) Fauna that is removed from site are to be carefully placed in a fertile and equivalent location away from site. b) No animals may be harmed during mining process

2.3 Archaeological and paleontological remains: a) Should any artefact be uncovered during mining process, all work is to be stopped, the area cordoned off. Activities can be resumed after necessary remedial steps are implemented and authorization has been obtained.

2.4 Fire management: a) No special fire management measures required

2.5 Services: a) No services to be relocated to this site.

### **3 Mining of material**

3.1 Material to be mined: a) Ferrite gravel at a depth of up to 1.50m below the soil surface

3.2 Extraction plan: a) After topsoil is removed, extracted material will be ripped by a D8 dozer and loaded onto trucks that will collect material from the northern boundary in a southern direction.

3.3 Material Transportation on site: a) Material will not be transported within the site. b) Material is intended to be carted away from where it is removed on site.

3.4 Stockpiling: a) Stockpiling will move South across the excavation site as the material gets carted away. .

### **4 Rehabilitation**

4.1 General site clean-up: a) Infrastructure, equipment, plant, foreign materials and rubble will be removed from site.

4.2 Topsoil: a) Will be deposited into its original position after extraction of ferrous material.

4.3 Landscaping: a) All slopes will be cut to the final design as per operator instruction. b) All surplus material in and around excavation are to be used as fill. c) Slopes will be smoothed over and large rocks will be used as fill. d) Floor of borrow pit will be smoothed out and rendered free draining.

4.4 Re-vegetation: a) Any slopes will be straw stabilized using seedless and dried hay fibres.

4.5 Permanent drainage works/ Erosion Protection: a) Erosion channels, wash away are to be backfilled and consolidated. b) Brush packing can be done in erosion runnels and water outlets to reduce water flow. Additional

4.6 Traffic on vegetation: a) no vehicles allowed back on the haul road after no vehicles allowed back on the haul road after mining process is completed

4.7 Site safety: a) Access gate to remain locked and opened when required. Key can be given to farmer for future use

Due to the fact that the proposed borrow area is located on the watershed some distance from the aquatic features and is located within cultivated areas, the activities at the site are unlikely to impact on the flow and water quality in the watercourses. As such the proposed borrow pit is not seen as having potential to impede or divert flow in a watercourse, nor will it have the potential to change the bed, banks or characteristics of a watercourse.

Any freshwater impact from the proposed activities on the watercourses is thus unlikely if the works is undertaken in accordance with the proposed mining plan. It is however recommended that the borrow pit is operated and rehabilitated in line with the approved Environmental Management Programme and rehabilitation plan for the project. Rehabilitation of the site should include where possible revegetating the site with local indigenous vegetation and ongoing control of invasive alien plant species.

There is no expected risk of the proposed activity degrading the ecological integrity of any aquatic features in the area thus no risk assessment was undertaken for this borrow pit. The proposed borrow pit should therefore not require a water use authorisation.

Please feel free to contact me should you have any questions regarding the above.

Kind regards



Toni Belcher (P. Sci. Nat. 400040/10)

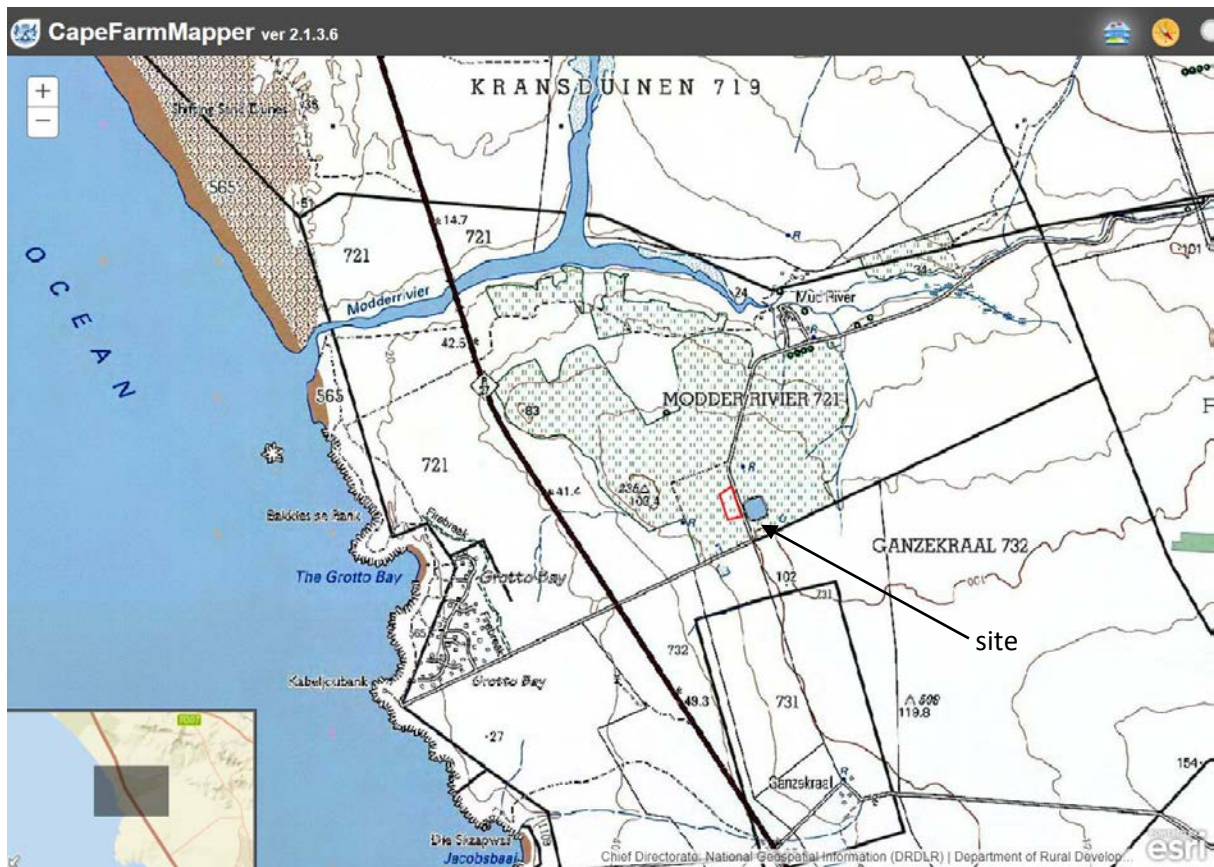


Figure 1. Topographical map of the proposed borrow area and surrounding area (CapeFarmMapper, 2019)



Figure 2. Orthophotograph of the proposed borrow pit area and surrounding area with the watercourses indicated as well as the 5m contours



Figure 3. View of the site of the borrow area, looking northwards across the site from the access road



Figure 4. Image taken in 1938, overlain in Google Earth with the location of the site and watercourses shown

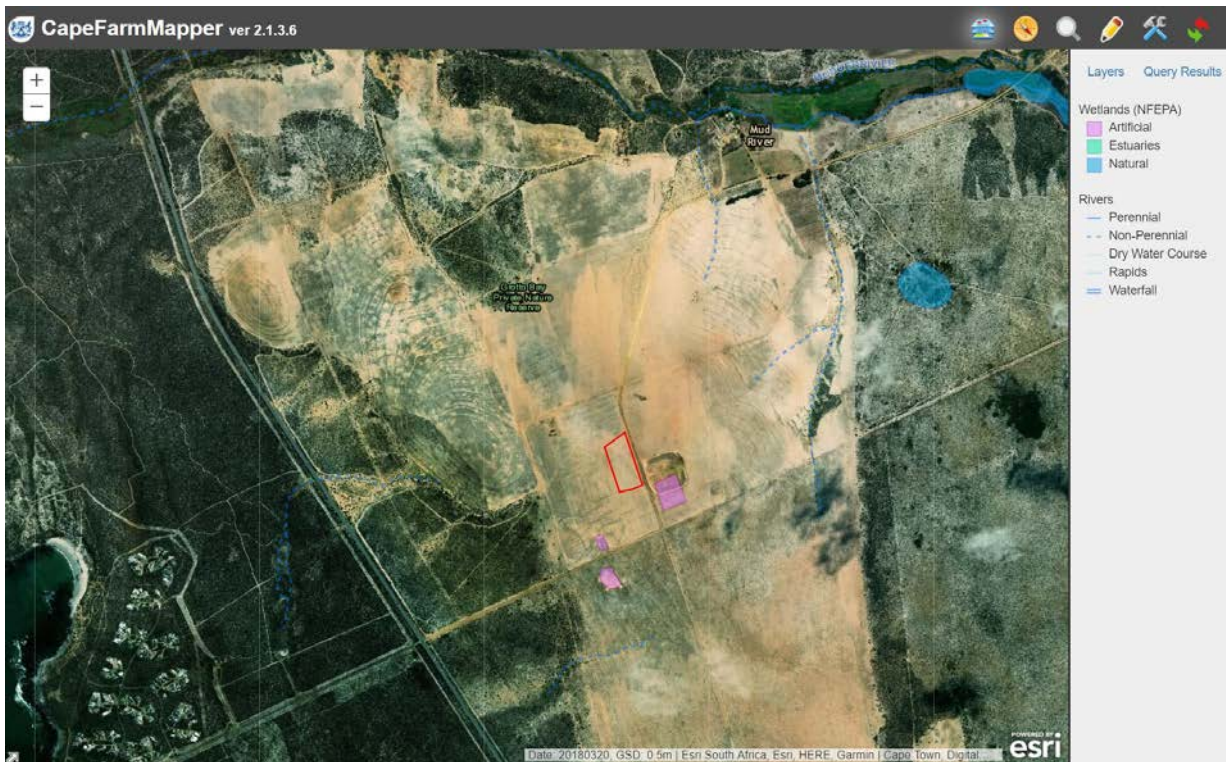


Figure 5. Mapped Freshwater Ecosystem Priority Area wetlands near the proposed borrow area (CapeFarmMapper, 2019)

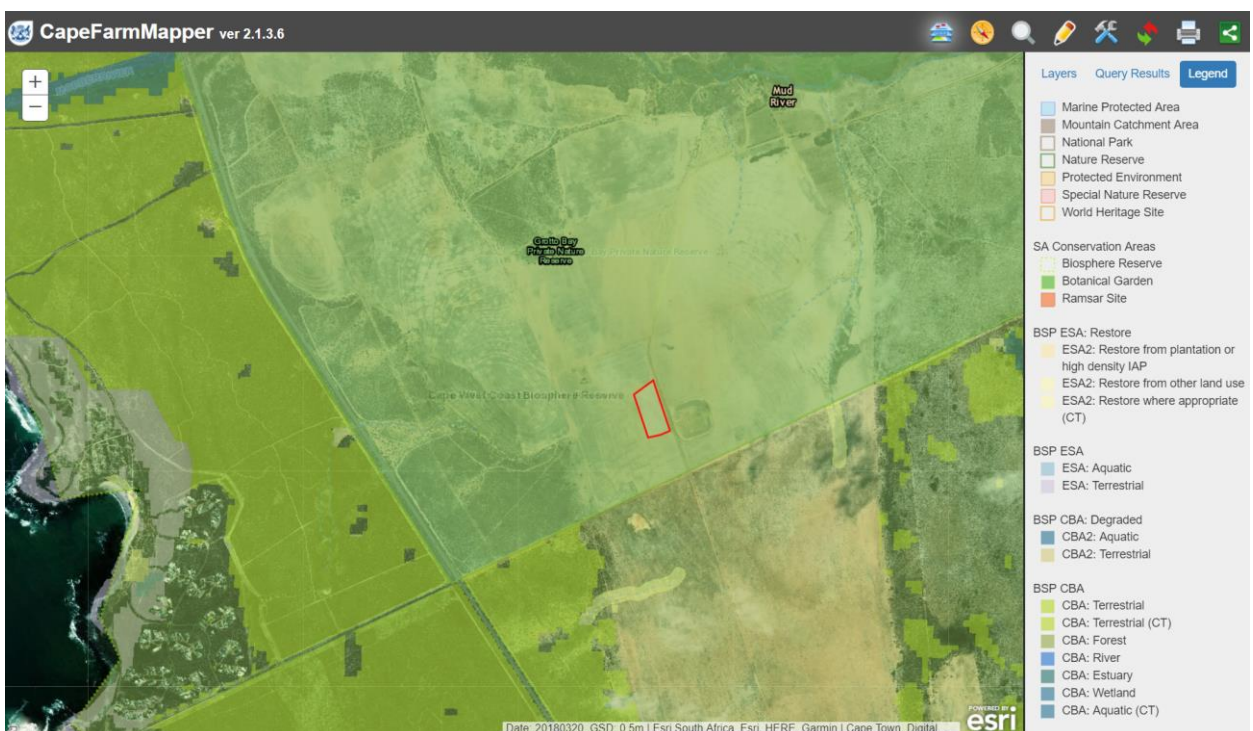


Figure 6. Western Cape Biodiversity Spatial Plan for the area surrounding the proposed borrow area (CapeFarmMapper, 2017)



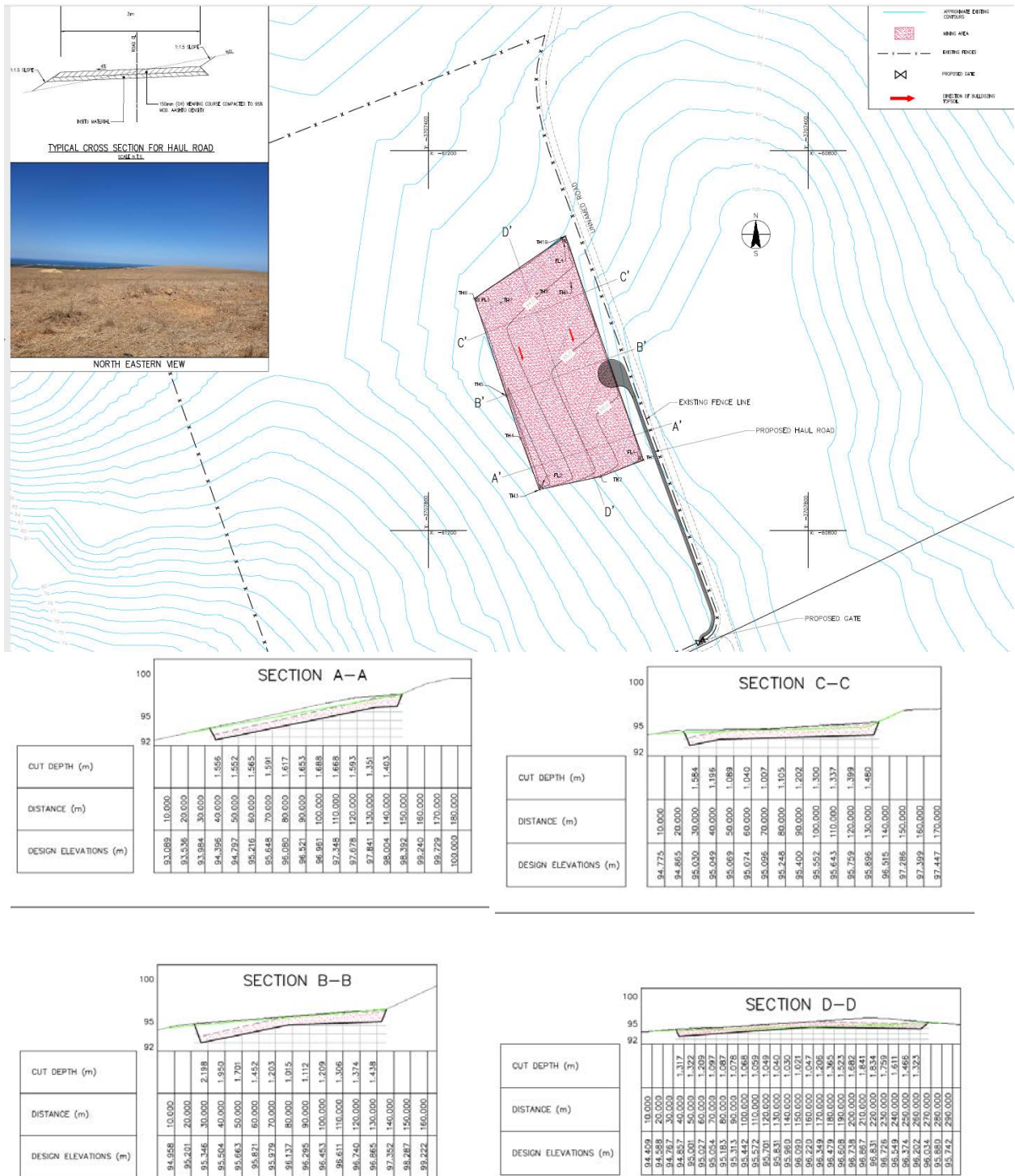


Figure 7. Diagram of the proposed borrow area during operation

***APPENDIX 1: DECLARATION OF INDEPENDENCE BY THE INDEPENDENT PERSON WHO COMPILED A SPECIALIST REPORT OR UNDERTOOK A SPECIALIST PROCESS***

I, Antonia Belcher, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that I :

- in terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another specialist (the “Review Specialist”) that meets the general requirements set out in Regulation 13 has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- in terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared or to be prepared as part of the application; and
- am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (as amended).

Signature of the Specialist:



Name of Company:

BlueScience (Pty) Ltd

Date:

7 May 2019

***ABBREVIATED CURRICULUM VITAE:***

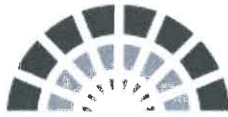
- Organisation:** BlueScience (Pty) Ltd
- Contact details:** PO Box 455, Somerset Mall, 7137
- Names:** Ms Toni Belcher
- Profession:** Senior Aquatic Ecologist for BlueScience, SACNASP No 400040/10
- Expertise:** BlueScience (Pty) Ltd provides water resource management services and includes the following:
- Rivers and wetlands scoping and impact assessments;
  - River rehabilitation plans and implementation;
  - Wetland rehabilitation plans and implementation;
  - Water use authorisation applications (WULA);
  - Biomonitoring of rivers (including macro-invertebrates, fish & water quality);
  - Water use compliance auditing (internal auditing);
  - Water use compliance monitoring and reporting for license holders (including water quality sampling and measurements);
  - Ecological Reserve determination of rivers and wetlands;
  - River Maintenance and Management Plans (MMP);
  - NEMBA – alien vegetation assessment and management plans; and
  - Water resources capacity building and training.

Summary of projects undertaken by BlueScience since July 2012:

Type of project	Number of projects undertaken
Dam developments	74
Other freshwater and freshwater impact assessments	364
River reach MMP	6
ESKOM	34
Renewable energy (WEF and Solar)	29
Roads (Provincial and National roads)	47
River monitoring and rehabilitation projects	58
Water resource study	12
Water use authorisation applications (not linked to a freshwater assessment study)	26
Water use authorisation audits and licensing monitoring)	7

**Appendix B. Present Ecological Status and Ecological Importance and Ecological Sensitivity for the Modder River approx. 1.5km north of the proposed borrow area**

SELECT SQ REACH	SQR NAME	LENGTH km	STREAM ORDER	PES ASSESSED BY XPERTS? (IF TRUE="Y")	REASONS NOT ASSESSED	PES CATEGORY DESCRIPTION	PES CATEGORY BASED ON MEDIAN OF METRICS
G22A-09344	Bokramspruit	7.90	1	Y		LARGELY MODIFIED	D
MEAN EI CLASS	MEAN ES CLASS	DEFAULT ECOLOGICAL CATEGORY (DEC)	RECOMMENDED ECOLOGICAL CATEGORY (REC)				
MODERATE	MODERATE	C	0.00				
PRESENT ECOLOGICAL STATE		ECOLOGICAL IMPORTANCE			ECOLOGICAL SENSITIVITY		
INSTREAM HABITAT CONTINUITY MOD	MODERATE	FISH SPP/SQ	1.00	INVERT TAXA/SQ	19.00	FISH PHYS-CHEM SENS DESCRIPTION	MODERATE
RIP/WETLAND ZONE CONTINUITY MOD	LARGE	FISH: AVERAGE CONFIDENCE	1.00	INVERT AVERAGE CONFIDENCE	4.58	FISH NO-FLOW SENSITIVITY DESCRIPTION	MODERATE
POTENTIAL INSTREAM HABITAT MOD ACT.	LARGE	FISH REPRESENTIVITY PER SECONDARY: CLASS	VERY LOW	INVERT REPRESENTIVITY PER SECONDARY, CLASS	LOW	INVERT PHYS-CHEM SENS DESCRIPTION	MODERATE
RIPARIAN-WETLAND ZONE MOD	LARGE	FISH REPRESENTIVITY PER SECONDARY: CLASS	VERY LOW	INVERT RARITY PER SECONDARY: CLASS	HIGH	INVERTS VELOCITY SENSITIVITY	HIGH
POTENTIAL FLOW MOD ACT.	MODERATE	FISH RARITY PER SECONDARY: CLASS	FALSE	ECOLOGICAL IMPORTANCE: RIPARIAN-WETLAND-INSTREAM VERTEBRATES (EX FISH) RATING	VERY HIGH	RIPARIAN-WETLAND-INSTREAM VERTEBRATES (EX FISH) INTOLERANCE WATER LEVEL/FLOW CHANGES DESCRIPTION	VERY HIGH
POTENTIAL PHYSICO-CHEMICAL MOD ACTIVITIES	MODERATE	ECOLOGICAL IMPORTANCE: RIPARIAN-WETLAND-INSTREAM VERTEBRATES (EX FISH) RATING	VERY HIGH	HABITAT DIVERSITY CLASS	VERY LOW	STREAM SIZE SENSITIVITY TO MODIFIED FLOW/WATER LEVEL CHANGES DESCRIPTION	LOW
		RIPARIAN-WETLAND NATURAL VEG RATING BASED ON % NATURAL VEG IN 500m (100%-5)	HIGH	HABITAT SIZE (LENGTH) CLASS	LOW	RIPARIAN-WETLAND VEG INTOLERANCE TO WATER LEVEL CHANGES DESCRIPTION	HIGH
		RIPARIAN-WETLAND NATURAL VEG IMPORTANCE BASED ON EXPERT RATING	LOW	INSTREAM MIGRATION LINK CLASS	HIGH		
				RIPARIAN-WETLAND ZONE MIGRATION LINK	MODERATE		
				RIPARIAN-WETLAND ZONE HABITAT INTEGRITY CLASS	MODERATE		
				INSTREAM HABITAT INTEGRITY CLASS	MODERATE		



iLifa leMveli leNtshona Koloni  
Erfenis Wes-Kaap  
Heritage Western Cape

## NOTIFICATION OF INTENT TO DEVELOP

Completion of this form is required by Heritage Western Cape for the initiation of all impact assessment processes under Section 38(1) & (8) of the National Heritage Resources Act (NHRA).

Whilst it is not a requirement, it may expedite processes and in particular avoid calls for additional information if certain of the information required in this form is provided by a heritage specialist/s with the necessary qualifications, skills and experience.

### A. APPLICABILITY OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NEMA)

HWC Case Number: 18062806

DEADP Reference Number:

**NOTE:** A DEADP (W Cape Dept. Environment Affairs & Development Planning) reference number must be included in all NHRA Section 38(8) processes where DEADP is the decision making authority under NEMA. The effect of this requirement is that the NEMA process must be initiated with DEADP prior to the NHRA process with HWC.

If a DEADP reference number is not entered above please check one of the following boxes:

This application is made in terms of Section 38(8) of the NHRA and an application under NEMA has been made to the following authority: Department of Mineral Resources (DMR).

This development will not require a NEMA application.

**NOTE:** Making an incorrect statement or providing incorrect information in this part of the form may result in all or part of the application having to be reconsidered by HWC in the future, or submission of a new application.

### B. BASIC DETAILS

#### PROPERTY DETAILS:

Name of property: Remaining Extent of the Farm Modder Rivier 721	
Street address or location (eg: off R44): Off R27	
Erf or farm number/s: Remaining Extent of the Farm Modder Rivier 721	Coordinates: -33.492990S 18.343962E (A logical centre point. Format based on WGS84.)
Town or District: Malmesbury Magisterial District	Responsible Municipality: Swartland Local Municipality
Extent of property: 963.90 Ha	Current use: Agricultural land
Predominant land use/s of surrounding properties: Agricultural land	

#### REGISTERED OWNER OF PROPERTY:

Name Zevocept (Pty) Ltd (responsible person: Dr Hassen Adams)		
Address PO Box 51121, V&A Waterfront, Cape Town, 8002		
Telephone 021 421 7771	Cell 083 279 0000	E-mail hassen@grandparade.co.za

By the submission of this form and all material submitted in support of this notification (ie: 'the material'), all applicant parties acknowledge that they are aware that the material and/or parts thereof will be put to the following uses and consent to such use being made: filing as a public record; presentations to committees, etc; inclusion in databases; inclusion on and downloading from websites; distribution to committee members and other stakeholders and any other use required in terms of powers, functions, duties and responsibilities allocated to Heritage Western Cape under the terms of the National Heritage Resources Act. Should restrictions on such use apply or if it is not possible to copy or lift information from any part of the digital version of the material, the material will be returned unprocessed.

I confirm that I enclose with this form four hardcopies of all material submitted together with a CD ROM containing digital versions of all of the same.

Signature of owner or authorised agent  
(Agents must attach copy of power of attorney to this form.)

Date 08 / 03 / 20 19

**DEVELOPMENT DETAILS:**

Please indicate below which of the following Sections of the National Heritage Resources Act, or other legislation has triggered the need for notification of intent to develop.

<input type="checkbox"/> S38(1)(a) Construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier over 300m in length.	S38(1)(c) Any development or activity that will change the character of a site -
<input type="checkbox"/> S38(1)(b) Construction of a bridge or similar structure exceeding 50m in length.	<input type="checkbox"/> (i) exceeding 5 000m <sup>2</sup> in extent;
<input type="checkbox"/> S38(1)(d) Rezoning of a site exceeding 10 000m <sup>2</sup> in extent.	<input type="checkbox"/> (ii) involving three or more existing erven or subdivisions thereof;
<input checked="" type="checkbox"/> Other triggers, eg: in terms of other legislation, (ie: National Environment Management Act, etc.) Please set out details: The proposed borrow pit requires a Mining Permit application in terms of the Mineral and Petroleum Resources Development Act (No. 28 of 2002). In terms of the NEMA, the submission of a Mining Permit application triggers listed activities 21 and 22 of Listing Notice 1 (Government Notice No. R327 of 7 April 2017) of the Environmental Impact Assessment Regulations 2014, as amended, and requires Environmental Authorisation.	<input type="checkbox"/> (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years.  If you have checked any of the three boxes above, describe how the proposed development will change the character of the site:

If an impact assessment process has also been / will be initiated in terms of other legislation please provide the following information:

Authority / government department (ie: consenting authority) to which information has been /will be submitted for final decision: DMR

Present phase at which the process with that authority stands: Application still to be submitted.  
Will happen once all relevant draft documentation is available (including the specialist reports).

Provide a full description of the nature and extent of the proposed development or activity including its potential impacts (eg: changes in land use, envisaged timeframes, provision of additional bulk services, excavations, landscaping, total floor area, height of development, etc. etc.): The proposal is to establish a borrow pit of approximately 2.65 ha in extent on the farm Modder Rivier (Re 721). The borrow pit will be located adjacent to and on the western side of the Darling Hills Road, approximately 1 km from the intersection with the R27 (see Figures 1-3).

The area to be covered by the borrow pit is agricultural land and was under a young cereal crop at the time of the site visit for this NID (Plates 1-3). There is a small existing earthwork on the proposed site, within which is a stockpile of laterite/ferricrete, apparently obtained from the recent refurbishment of the farm dam on the opposite side of the Darling Hills Road from the borrow pit site.

Ferrite gravel up to a maximum depth of approximately 2.2 m below the soil surface is the target resource for the proposed borrow pit (Figure 4).

After the topsoil is removed and stockpiled, the ferrite gravel will be excavated with a bulldozer and loaded directly onto trucks that will use a new haul road along the eastern edge of the property (Figure 4). The stockpiled topsoil will be replaced after the extraction of the ferrite gravel.

### C. HERITAGE RESOURCES AND IMPACTS THEREUPON

Section 3 of the National Heritage Resources Act sets out the following categories of heritage resource as forming part of the national estate. Please indicate the known presence of any of these by checking the box alongside and then providing a description of each occurrence, including nature, location, size, type

Failure to provide sufficient detail or to anticipate the likely presence of heritage resources on the site may lead to a request for more detailed specialist information.

(The assistance of relevant heritage professionals is particularly relevant in completing this section.)

Provide a short history of the site and its environs (Include sources where available): The proposed borrow pit is located on the farm Modder Rivier, which was first surveyed in 1817 (see Figure 5).

The colonial history of Modder Rivier extends further back than this, however, as the farm was one of three dozen VOC farms centred on the Company post at Groen Kloof (now Mamre) during the 18<sup>th</sup> century (Theal, GM, 1897, Records of the Cape Colony Vol 1, p 145; Fransen, H, 2004, Old Buildings of the Cape, p 335), and which include it's immediate neighbours, Ganzekraal, Groote Post and Kranse Vallei.

The farmstead on Modder Rivier is located on the banks of river of the same name on the far side of the watershed and approximately 1.5 km from the proposed borrow pit and will not be affected by the proposal.

With regard to precolonial archaeology, no sites are recorded in the vicinity of the proposed borrow pit. A walkover survey of the area to be affected by ACO Associates for this NID (see Figures 6 and 7

and Plates 1-3) found no evidence of precolonial archaeological material in the borrow pit footprint. The nearest recorded precolonial archaeological sites and material are at the coast between 2.5 km and 3.5 km distant, where Pfeifer and Van der Merwe (SAAB 2004) reported three Later Stone Age child burials with cranial injuries from the Modder Rivier mouth and Kaplan (1993) reported a number of shell middens at Grotto Bay.

Please indicate which heritage resources exist on the site and in its environs, describe them and indicate the nature of any impact upon them:

<input type="checkbox"/>	<b>Places, buildings, structures and equipment of cultural significance</b> Description of resource: N/A Description of impact on heritage resource:
<input type="checkbox"/>	<b>Places to which oral traditions are attached or which are associated with living heritage</b> Description of resource: N/A Description of impact on heritage resource:
<input type="checkbox"/>	<b>Historical settlements and townscapes</b> Description of resource: N/A Description of impact on heritage resource:
<input type="checkbox"/>	<b>Landscapes and natural features of cultural significance</b> Description of resource: N/A Description of impact on heritage resource:
<input type="checkbox"/>	<b>Geological resources of scientific or cultural importance</b> Description of resource: N/A Description of impact on heritage resource:
<input type="checkbox"/>	<b>Archaeological resources</b> (Including archaeological sites and material, rock art, battlefields & wrecks): Description of resource: N/A Description of impact on heritage resource:
<input type="checkbox"/>	<b>Palaeontological resources</b> (ie: fossils): Description of resource: N/A Description of impact on heritage resource:
<input type="checkbox"/>	<b>Graves and burial grounds</b> (eg: ancestral graves, graves of victims of conflict, historical graves & cemeteries): Description of Resource: N/A Description of Impact on Heritage Resource:
<input type="checkbox"/>	<b>Other human remains:</b> Description of resource: N/A Description of impact on heritage resource:
<input type="checkbox"/>	<b>Sites of significance relating to the history of slavery in South Africa:</b> Description of resource: N/A Description of impact on heritage resource:
<input type="checkbox"/>	<b>Other heritage resources:</b> Description of resource: N/A Description of impact on heritage resource:



Describe elements in the environs of the site that could be deemed to be heritage resources: There are no known heritage resources in the vicinity of the proposed borrow pit.

Description of impacts on heritage resources in the environs of the site: N/A

Summary of anticipated impacts on heritage resources: The development of the proposed borrow pit is unlikely to have any impact on heritage resources.

ILLUSTRATIVE MATERIAL (This form will not be processed unless the following are included):

Attach to this form a minimum A4 sized locality plan showing the boundaries of the area affected by the proposed development, its environs, property boundaries and a scale. The plan must be of a scale and size that is appropriate to creating a clear understanding of the development.

Attach also other relevant graphic material such as maps, site plans, satellite photographs and photographs of the site and the heritage resources on it and in its environs. These are essential to the processing of this notification.

Please provide all graphic material on paper of appropriate size and on CD ROM in JPEG format. It is essential that graphic material be annotated via titles on the photographs, map names and numbers, names of files and/or provision of a numbered list describing what is visible in each image.

#### D. RECOMMENDATION

In your opinion do you believe that a heritage impact assessment is required?  Yes  No

Recommendation made by:

Name John Gribble

Capacity Archaeologist and Heritage Specialist

**PLEASE NOTE:** No Heritage Impact Assessment should be submitted with this form or conducted until Heritage Western Cape has expressed its opinion on the need for such and the nature thereof.

#### E. INFORMATION TO BE PROVIDED AND STUDIES TO BE CONDUCTED AS PART OF THE HERITAGE IMPACT ASSESSMENT (HIA)

If it is recommended that an HIA is required please complete this section of the form.

DETAILS OF HERITAGE PRACTITIONERS AND SPECIALISTS INTENDING TO CONDUCT THE HIA:

	Name of individual:	Name of Practice:	Area of specialisation:
1.	Qualifications:		
	Experience:		
	Standing in heritage resource management:		
	E-mail Address:	Telephone:	Cell:

2.	Name of individual:	Name of Practice:	Area of specialisation:
	Qualifications:		
	Experience:		
	Standing in heritage resource management:		
	E-mail Address:	Telephone:	Cell:
3.	Name of individual:	Name of Practice:	Area of specialisation:
	Qualifications:		
	Experience:		
	Standing in heritage resource management:		
	E-mail Address:	Telephone:	Cell:
4.	Name of individual:	Name of Practice:	Area of specialisation:
	Qualifications:		
	Experience:		
	Standing in heritage resource management:		
	E-mail Address:	Telephone:	Cell:
5.	Name of individual:	Name of Practice:	Area of specialisation:
	Qualifications:		
	Experience:		
	Standing in heritage resource management:		
	E-mail Address:	Telephone:	Cell:
If this submission is made in terms of Section 38(8) of the National Heritage Resources Act indicate below the particulars of the principle environmental consultant on the project.			
Name of individual:			
Name of Practice:			
Area of specialisation:			
E-mail Address:			
Telephone:			
Cell:			
Postal Address:			

**DETAILS OF STUDIES TO BE CONDUCTED IN THE INTENDED HIA**

In addition to the requirements set out in Section 38(3) of the NHRA, indicate envisaged studies:

<input type="checkbox"/>	Heritage resource-related guidelines and policies.
<input type="checkbox"/>	Local authority planning and other laws and policies.
<input type="checkbox"/>	Details of parties, communities, etc. to be consulted.

<input type="checkbox"/>	Specialist studies, eg: archaeology, palaeontology, architecture, townscape, visual impact, etc. Provide details:
<input type="checkbox"/>	Other. Provide details:
PLEASE NOTE: Any further studies which Heritage Western Cape may resolve should be submitted must be in the form of a single, consolidated report with a single set of recommendations. Specialist studies must be incorporated in full, either as chapters of the report, or as annexures thereto.	



Landowner signature:

A handwritten signature in black ink, appearing to read "Hamp". The signature is written in a cursive style with a prominent loop at the end.



Figure 1: The farm Re/721 Modder Rivier (blue) and location of proposed borrow pit (red rectangle). The location of Grotto Bay and Groote Post are shown relative to farm and borrow pit (circled) (Source: Google Earth)



Figure 2: The farm Re/721 Modder Rivier (blue) and location of proposed borrow pit (red rectangle) (Source: Google Earth)

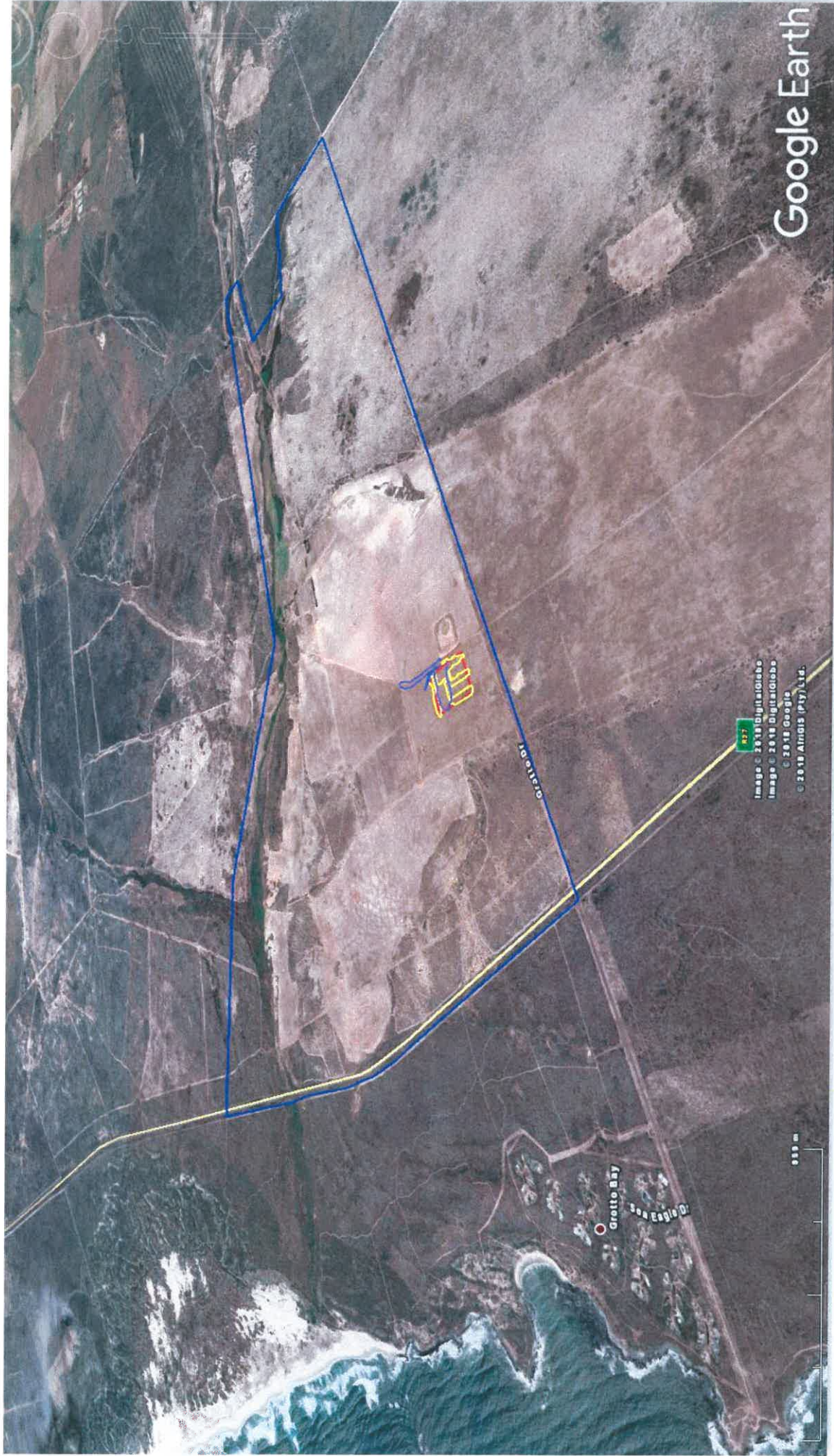


Figure 3: The farm Re/721 Modder Rivier (blue) and location of proposed borrow pit (red rectangle). ACO walkover survey tracks are shown (Source: Google Earth)



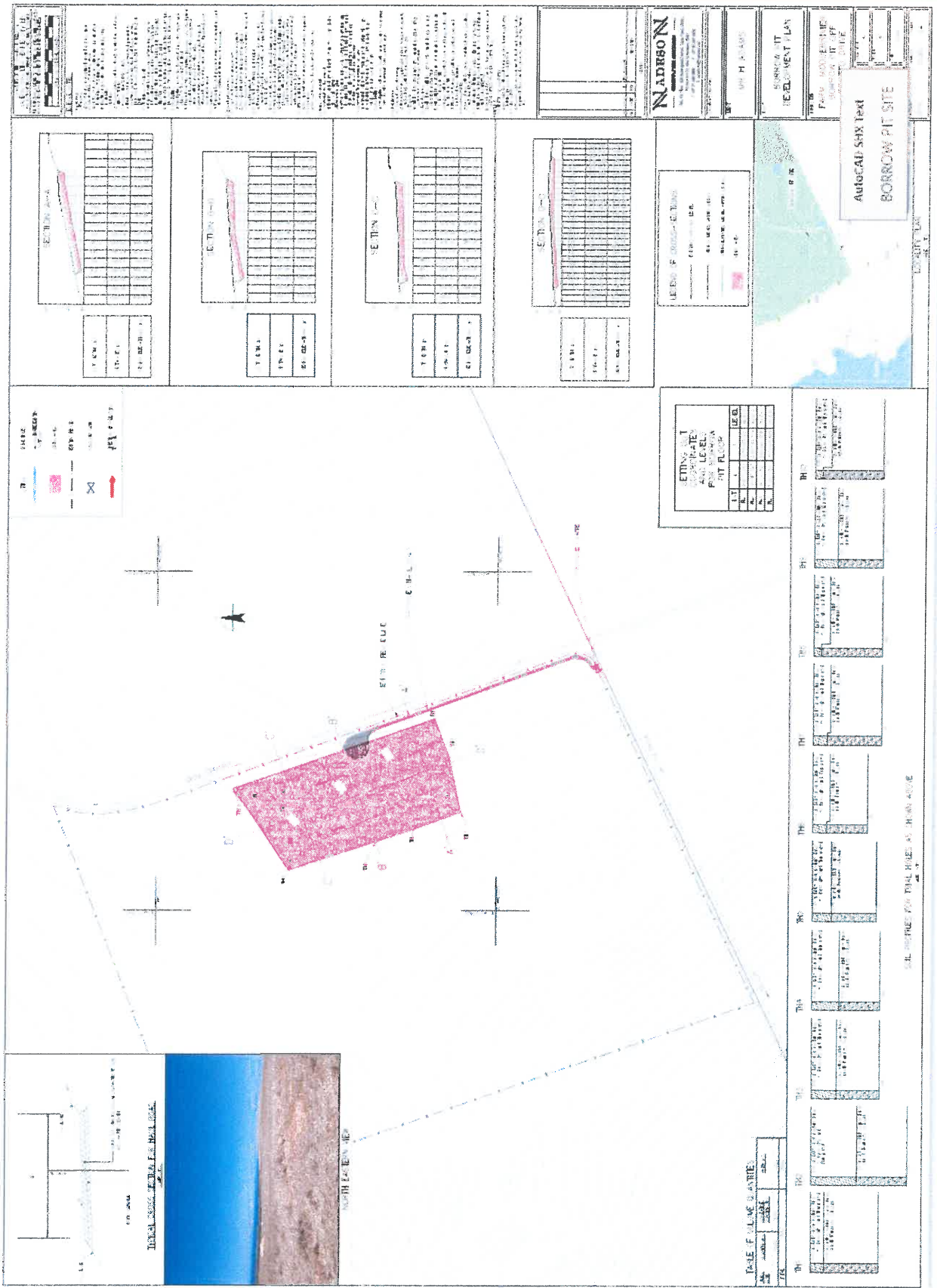


Figure 4: Plan of proposed borrow pit and haul road showing profiles with expected excavation depths.

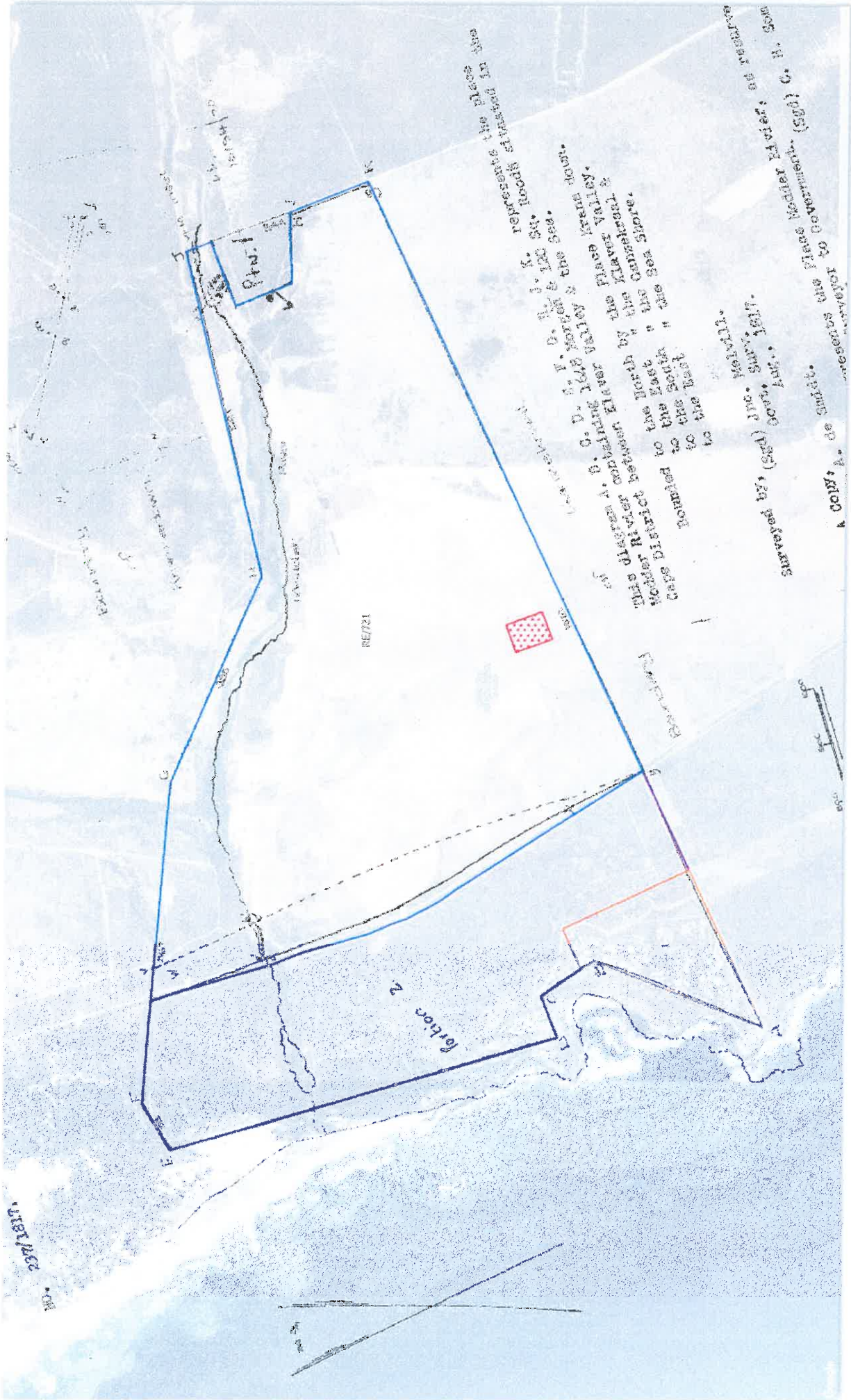




Figure 6: ACO walkover trackplots – 27 June 2018 (Source: Google Earth)

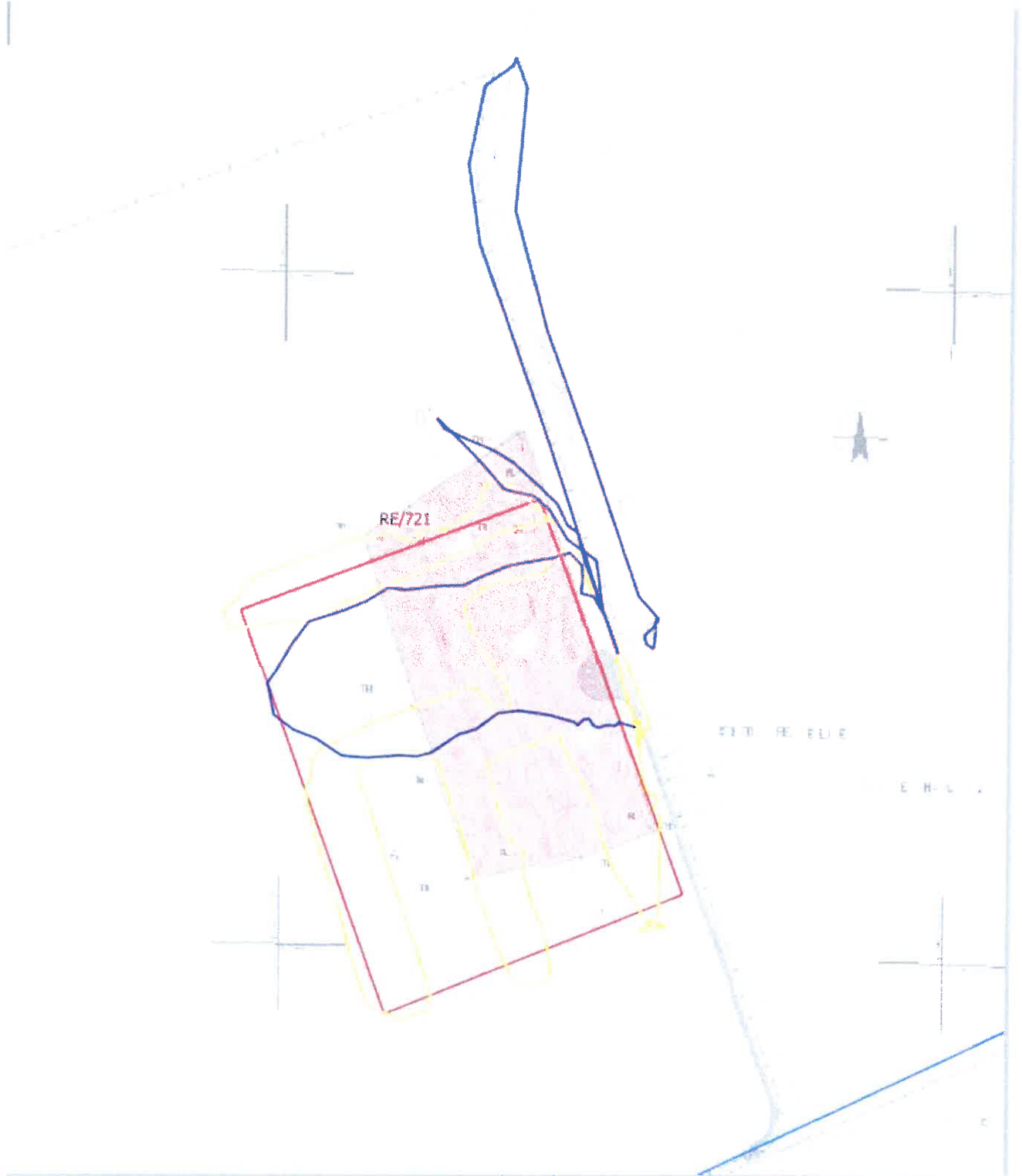


Figure 7: ACO walkover trackplots – 27 June 2018 – superimposed on the proposed borrow pit extent.



Plate 1: View across proposed borrow pit, looking west from wall of existing farm dam. The spoil heaps seem to have come from the recent refurbishment of the dam

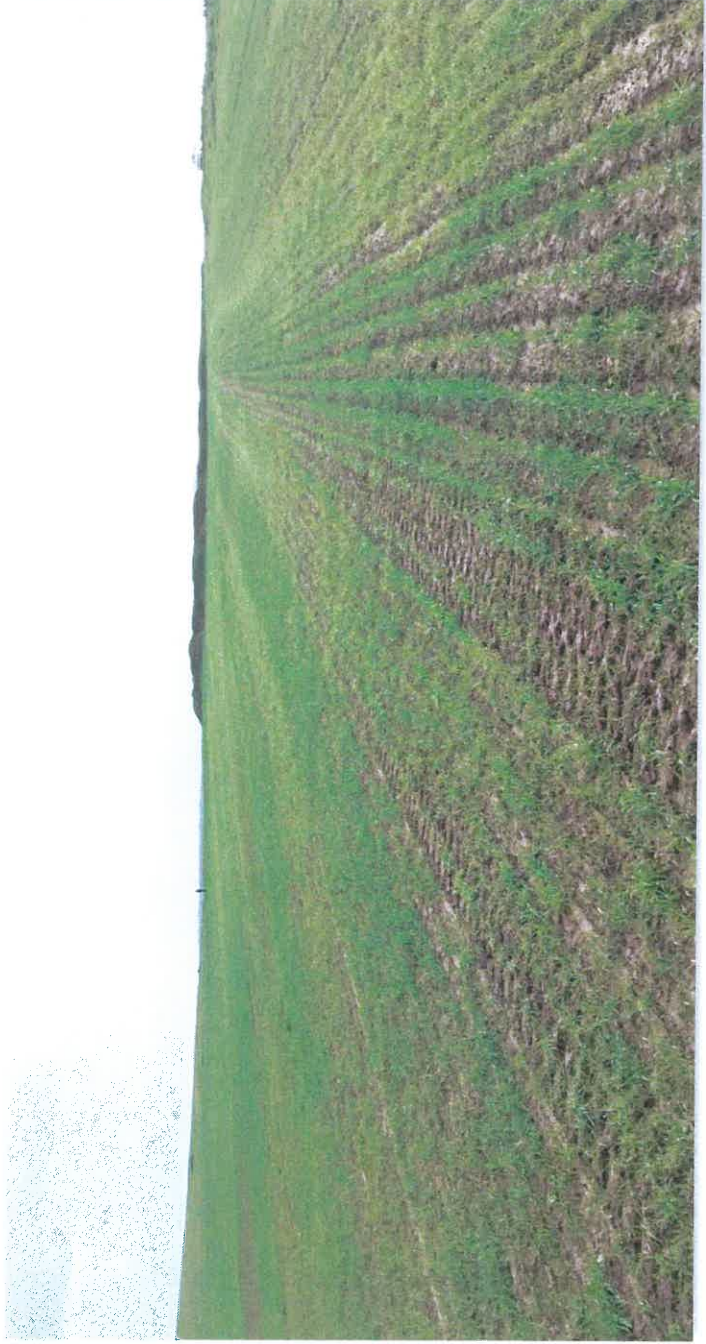


Plate 2: Looking north across the area to be covered by the proposed borrow pit. The mound on the horizon is the spoil heap shown in Plate 1



Plate 3: Looking south west across the area to be covered by the proposed borrow pit. Grotto Bay is on the coast in the distance (centre right)

## DECLARATION OF THE EAP

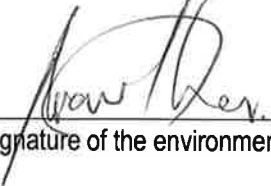
I, Jonathan Crowther, declare that –

General declaration:

- I act as the independent environmental practitioner in this application
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting environmental impact assessments, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I will take into account, to the extent possible, the matters listed in regulation 8 of the Regulations when preparing the application and any report relating to the application;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
- I will keep a register of all interested and affected parties that participated in a public participation process; and
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
- all the particulars furnished by me in this form are true and correct;
- will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
- I realise that a false declaration is an offence in terms of regulation 71 of the Regulations and is punishable in terms of section 24F of the Act.

**Disclosure of Vested Interest (delete whichever is not applicable)**

- I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Regulations;
- ~~I have a vested interest in the proposed activity proceeding, such vested interest being:~~

  
\_\_\_\_\_  
Signature of the environmental assessment practitioner:

SLR Consulting (South Africa) (Pty) Ltd  
\_\_\_\_\_  
Name of company:

30 January 2020  
\_\_\_\_\_  
Date:



**SCREENING REPORT FOR AN ENVIRONMENTAL AUTHORIZATION OR  
FOR A PART TWO AMENDMENT OF AN ENVIRONMENTAL AUTHORISATION  
AS REQUIRED BY THE 2014 EIA REGULATIONS – PROPOSED DEVELOPMENT  
FOOTPRINT ENVIRONMENTAL SENSITIVITY**

**EIA Reference number:** TBC

**Project name:** Zev01BA - 720.26010.00001

**Project title:** Proposed bottom pit development on Farm Modder Rivier, 721

**Date screening report generated:** 07/10/2019 14:46:12

**Applicant:** Zevocept (Pty) Ltd

**Compiler:** SLR Consulting (South Africa) (Pty) Ltd

**Compiler signature:**

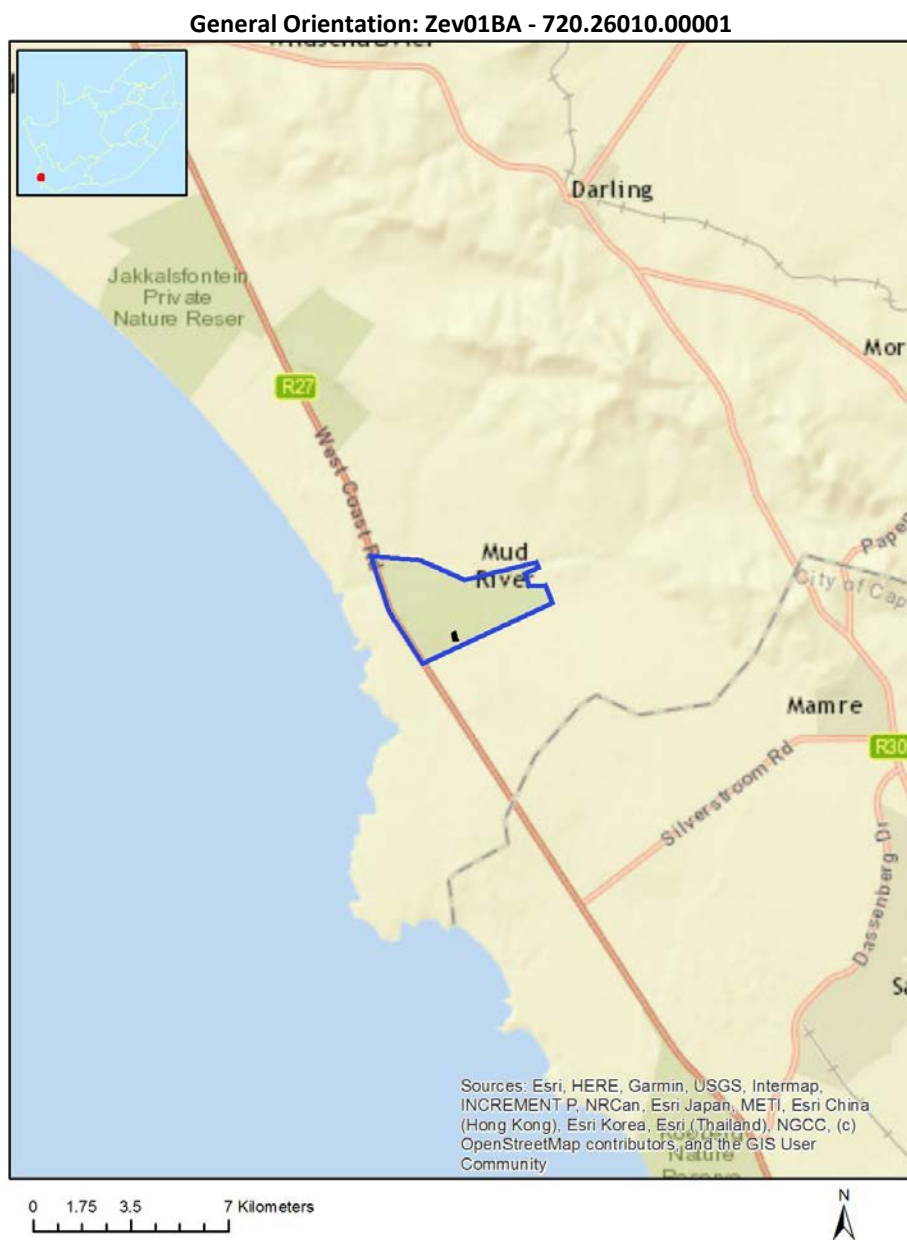
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# Proposed Project Location

Orientation map 1: General location



## Map of proposed site and relevant area(s)



## Cadastral details of the proposed site

Property details:

No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1	MODDER RIVIER	721	0	33°29'4.09S	18°20'11.33E	Farm
2	MODDER RIVIER	721	0	33°29'2.29S	18°20'33.78E	Farm Portion

Development footprint<sup>1</sup> vertices:

Footprint	Latitude	Longitude
1	33°29'30.38S	18°20'35.06E
1	33°29'38.25S	18°20'38.3E
1	33°29'38.95S	18°20'34.97E
1	33°29'32.31S	18°20'32.66E
1	33°29'30.38S	18°20'35.06E

## Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area

No	EIA Reference No	Classification	Status of application	Distance from proposed area (km)
1	12/12/20/2393	Solar PV	Approved	25.9
2	12/12/20/1985	Solar PV	Approved	27.4

<sup>1</sup> "development footprint", means the area within the site on which the development will take place and includes all ancillary developments for example roads, power lines, boundary walls, paving etc. which require vegetation clearance or which will be disturbed and for which the application has been submitted.

## Environmental Management Frameworks relevant to the application

No intersections with EMF areas found.

## Environmental screening results and assessment outcomes

The following sections contain a summary of any development incentives, restrictions, exclusions or prohibitions that apply to the proposed development footprint as well as the most environmental sensitive features on the footprint based on the footprint sensitivity screening results for the application classification that was selected. The application classification selected for this report is:

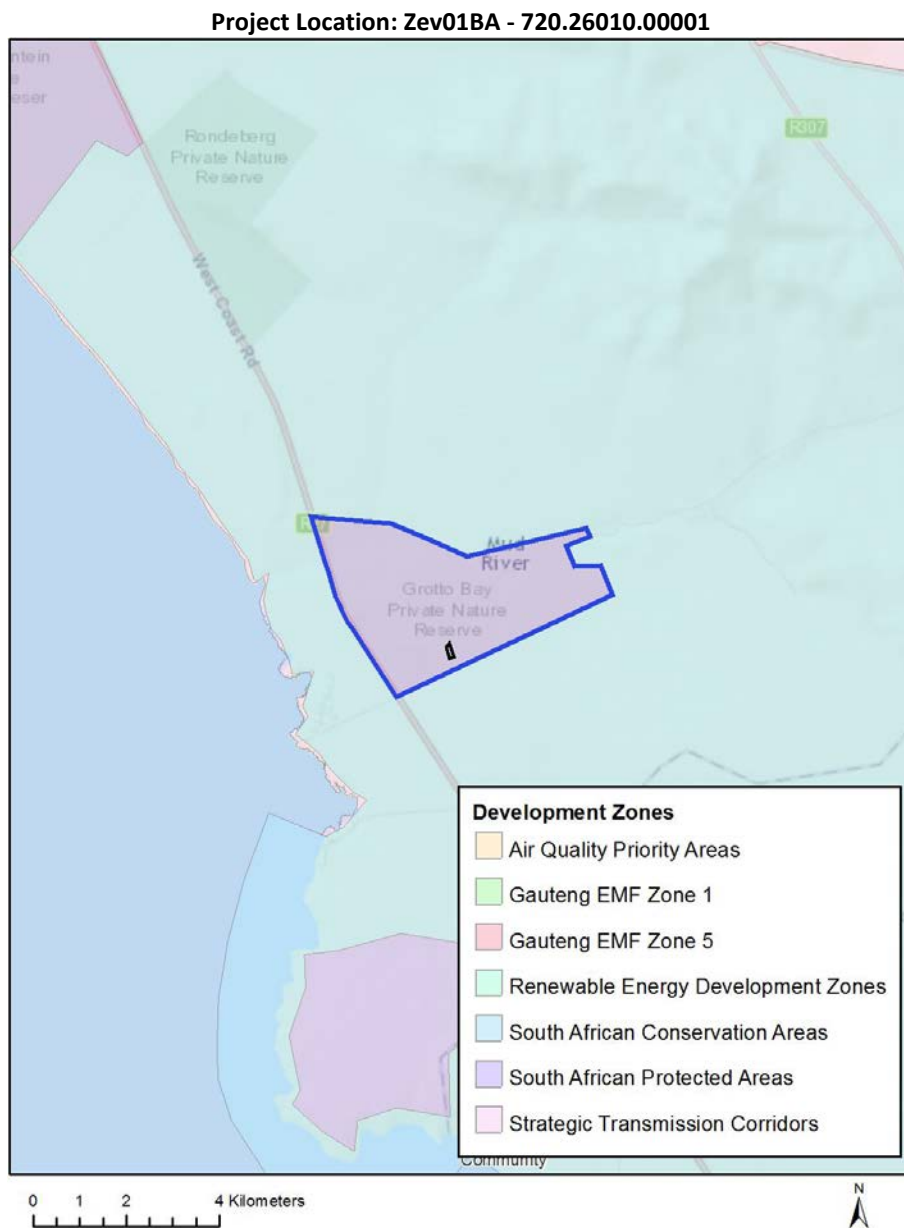
Mining | Mining Permit | Mining - Mining Permit.

### Relevant development incentives, restrictions, exclusions or prohibitions

The following development incentives, restrictions, exclusions or prohibitions and their implications that apply to this footprint are indicated below.

Incentive, restriction or prohibition	Implication
Strategic Transmission Corridor-Central corridor	<a href="https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/GNR_350_of_13_April_2017.pdf">https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/GNR_350_of_13_April_2017.pdf</a>
South African Conservation Areas	<a href="https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/SACAD_OR_2019_Q1_Metadata.pdf">https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/SACAD_OR_2019_Q1_Metadata.pdf</a>
South African Protected Areas	<a href="https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/SAPAD_OR_2019_Q2_Metadata.pdf">https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/SAPAD_OR_2019_Q2_Metadata.pdf</a>

Map indicating proposed development footprint within applicable development incentive, restriction, exclusion or prohibition zones



**Proposed Development Area Environmental Sensitivity**

The following summary of the development footprint environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme		X		
Aquatic Biodiversity Theme				X

Archaeological and Cultural Heritage Theme		X		
Civil Aviation Theme		X		
Plant Species Theme			X	
Defence Theme				X
Terrestrial Biodiversity Theme	X			

### Specialist assessments identified

Based on the selected classification, and the environmental sensitivities of the proposed development footprint, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the footprint situation.

No	Specialist assessment	Assessment Protocol
1	Agricultural Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_Agriculture_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_Agriculture_Assessment_Protocols.pdf</a>
2	Archaeological and Cultural Heritage Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf</a>
3	Palaeontology Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf</a>
4	Terrestrial Biodiversity Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf</a>
5	Aquatic Biodiversity Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_Aquatic_Biodiversity_Assessment.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_Aquatic_Biodiversity_Assessment.pdf</a>
6	Hydrology Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf</a>

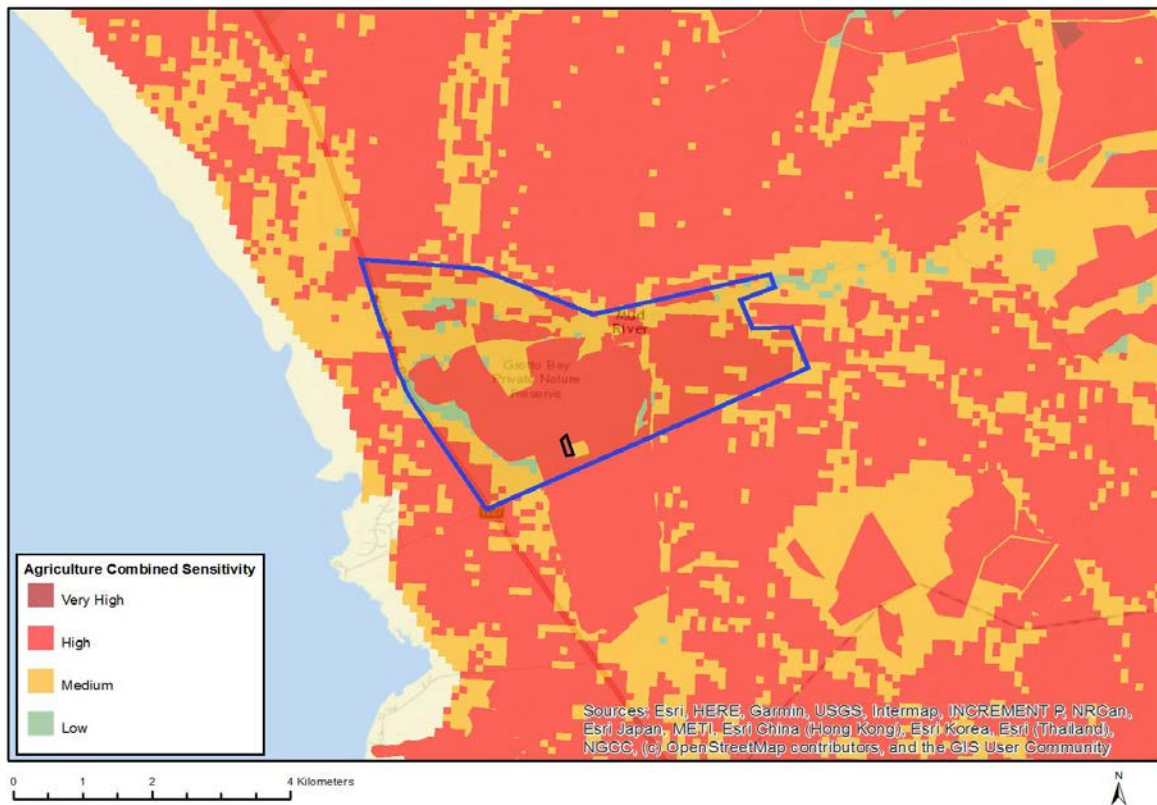
7	Noise Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_Noise_Impacts_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_Noise_Impacts_Assessment_Protocols.pdf</a>
8	Radioactivity Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf</a>
9	Traffic Impact Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf</a>
10	Geotechnical Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf</a>
11	Socio-Economic Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf</a>
12	Plant Species Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf</a>
13	Animal Species Assessment	<a href="https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf">https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/DraftGazetted_General_Requirement_Assessment_Protocols.pdf</a>



## Results of the environmental sensitivity of the proposed area.

The following section represents the results of the screening for environmental sensitivity of the proposed footprint for relevant environmental themes associated with the project classification. It is the duty of the EAP to ensure that the environmental themes provided by the screening tool are comprehensive and complete for the project. Refer to the disclaimer.

### MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY

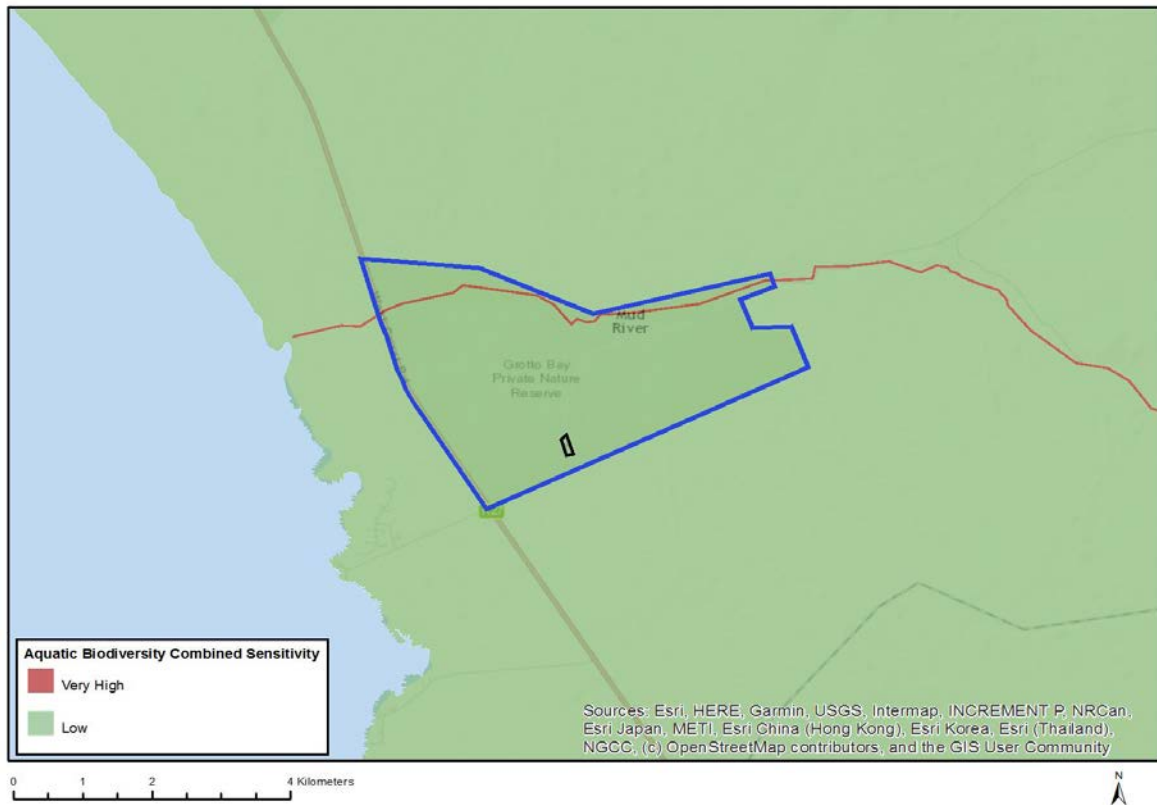


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

#### Sensitivity Features:

Sensitivity	Feature(s)
High	Annual Crop Cultivation / Planted Pastures Rotation; Land capability; 06. Low-Moderate/07. Low-Moderate/08. Moderate

## MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

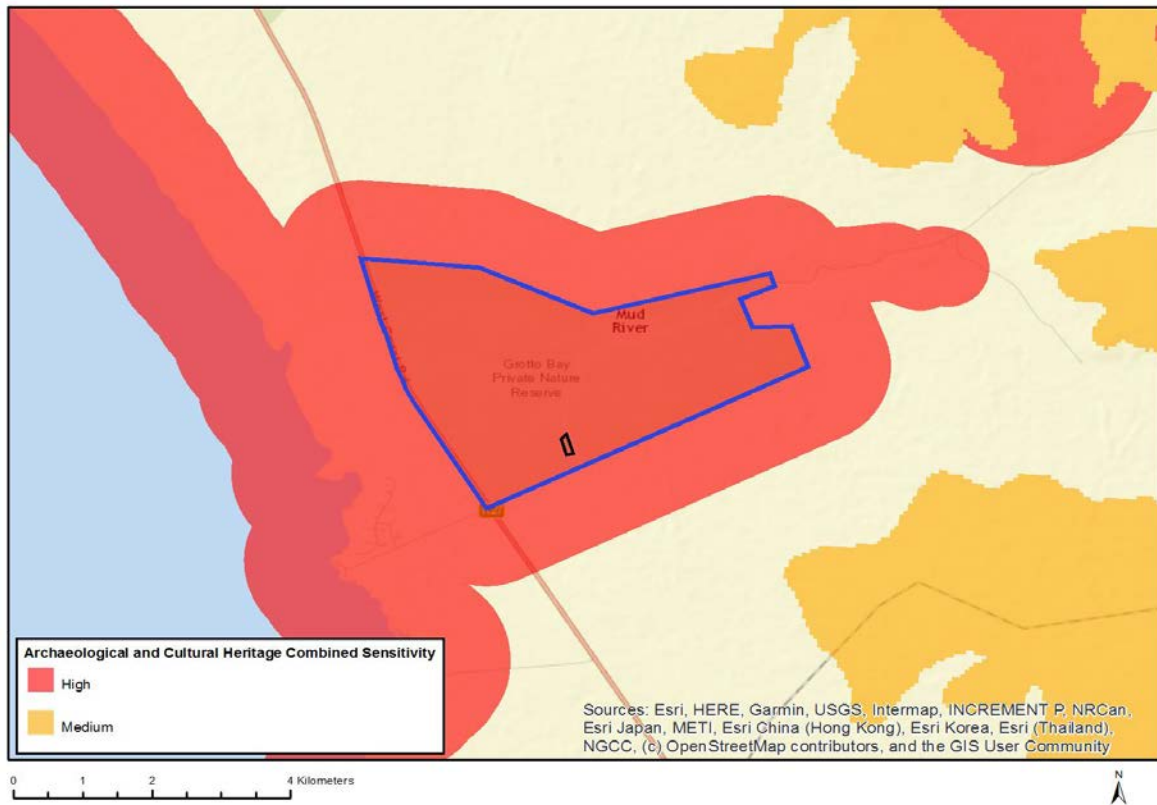


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

### Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity Areas

## MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

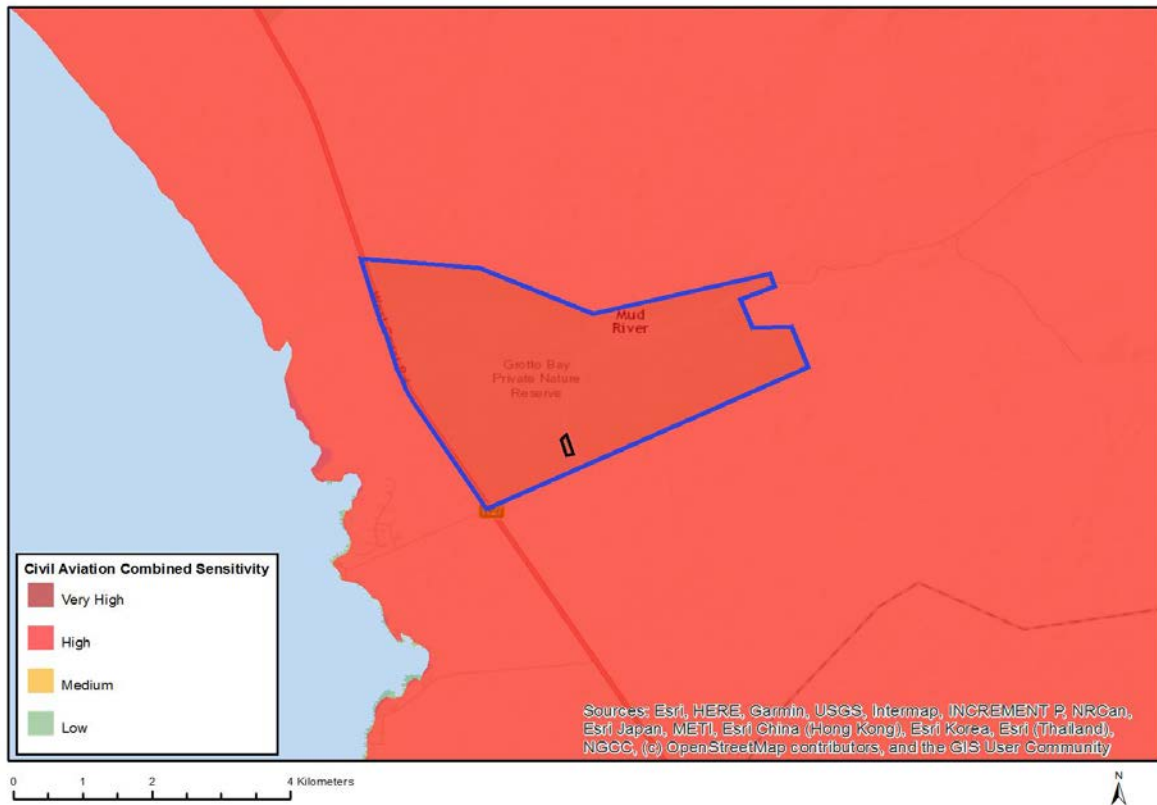


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

### Sensitivity Features:

Sensitivity	Feature(s)
High	Within protected area

## MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY

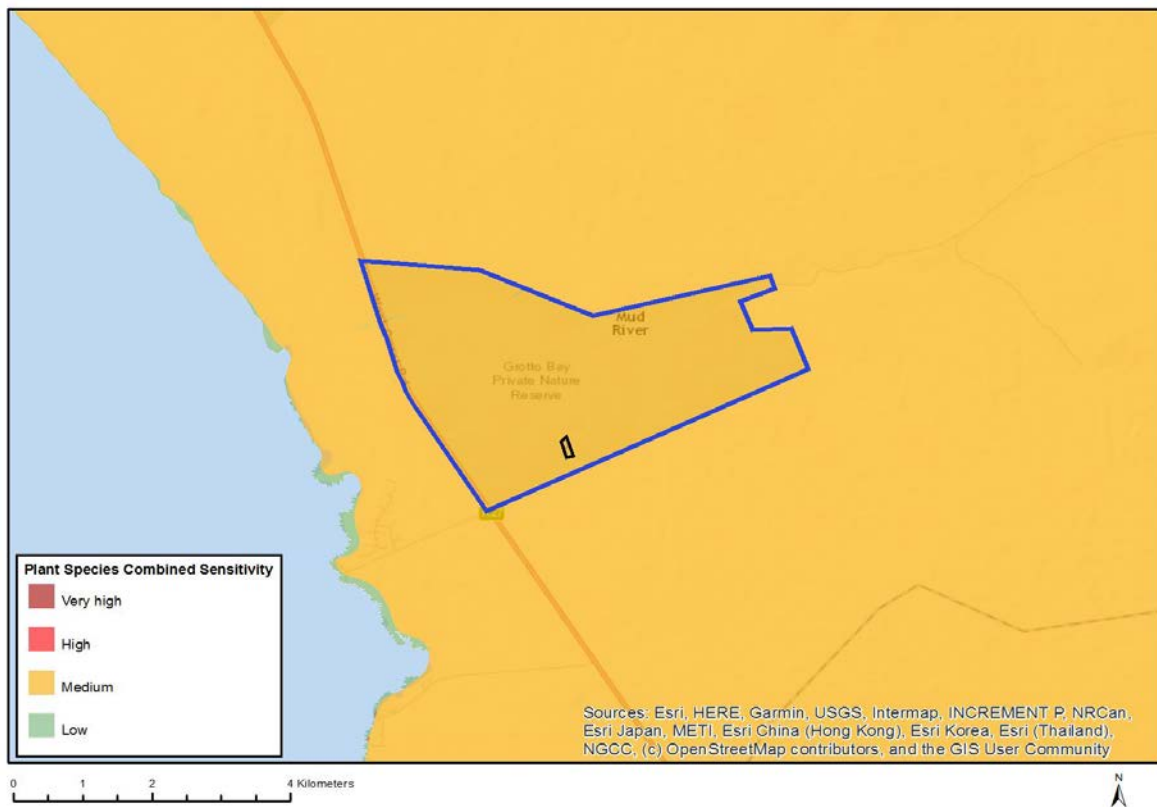


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

### Sensitivity Features:

Sensitivity	Feature(s)
High	Dangerous and restricted airspace as demarcated

## MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



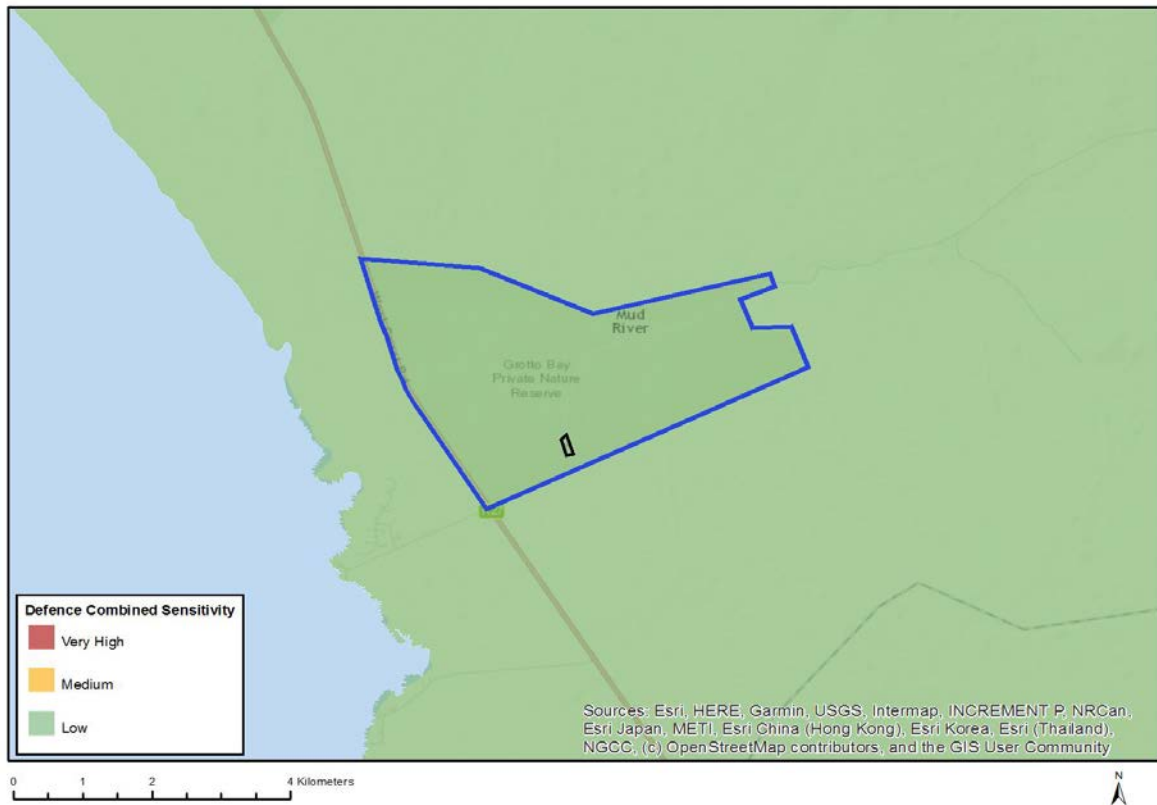
Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

### Sensitivity Features:

Sensitivity	Feature(s)
Medium	Antimima aristulata
Medium	Erepsia patula
Medium	Lobostemon capitatus
Medium	Echiostachys spicatus
Medium	Sensitive species 83
Medium	Geissorhiza monanthos
Medium	Geissorhiza radians
Medium	Ezoloba macrocarpa
Medium	Ixia abbreviata
Medium	Sensitive species 464
Medium	Sensitive species 636
Medium	Sensitive species 621
Medium	Pauridia pygmaea
Medium	Pauridia alba
Medium	Ruschia geminiflora
Medium	Ruschia diversifolia
Medium	Drosanthemum striatum
Medium	Drosanthemum hispifolium
Medium	Cephalophyllum parviflorum
Medium	Sensitive species 364
Medium	Sensitive species 697
Medium	Sensitive species 588

Medium	Sensitive species 744
Medium	<i>Restio impolitus</i>
Medium	<i>Anisodontea biflora</i>
Medium	<i>Pterygodium inversum</i>
Medium	<i>Xiphotheca lanceolata</i>
Medium	<i>Xiphotheca reflexa</i>
Medium	<i>Metalasia capitata</i>
Medium	<i>Metalasia octoflora</i>
Medium	<i>Senecio cadiscus</i>
Medium	<i>Agathosma latipetala</i>
Medium	<i>Agathosma glandulosa</i>
Medium	<i>Cliffortia hirta</i>
Medium	<i>Muraltia macropetala</i>
Medium	<i>Aspalathus aculeata</i>
Medium	<i>Aspalathus muraltioides</i>
Medium	<i>Aspalathus recurva</i>
Medium	Sensitive species 534
Medium	Sensitive species 547
Medium	<i>Wurmbea capensis</i>
Medium	<i>Phylica plumosa</i> var. <i>squarrosa</i>
Medium	<i>Phylica stenopetala</i> var. <i>stenopetala</i>
Medium	<i>Phylica strigulosa</i>
Medium	<i>Rafnia lancea</i>
Medium	<i>Lebeckia plukenetiana</i>
Medium	<i>Podalyria sericea</i>
Medium	<i>Aponogeton angustifolius</i>
Medium	<i>Leucadendron lanigerum</i> var. <i>lanigerum</i>
Medium	<i>Leucospermum hypophyllocarpodendron</i> subsp. <i>canaliculatum</i>
Medium	<i>Protea burchellii</i>
Medium	<i>Lampranthus leptaleon</i>
Medium	<i>Lampranthus peacockiae</i>
Medium	<i>Lampranthus scaber</i>
Medium	<i>Lampranthus sociorum</i>
Medium	<i>Lampranthus debilis</i>
Medium	<i>Lampranthus dilutus</i>
Medium	<i>Lampranthus filicaulis</i>
Medium	<i>Lampranthus glaucus</i>

## MAP OF RELATIVE DEFENCE THEME SENSITIVITY

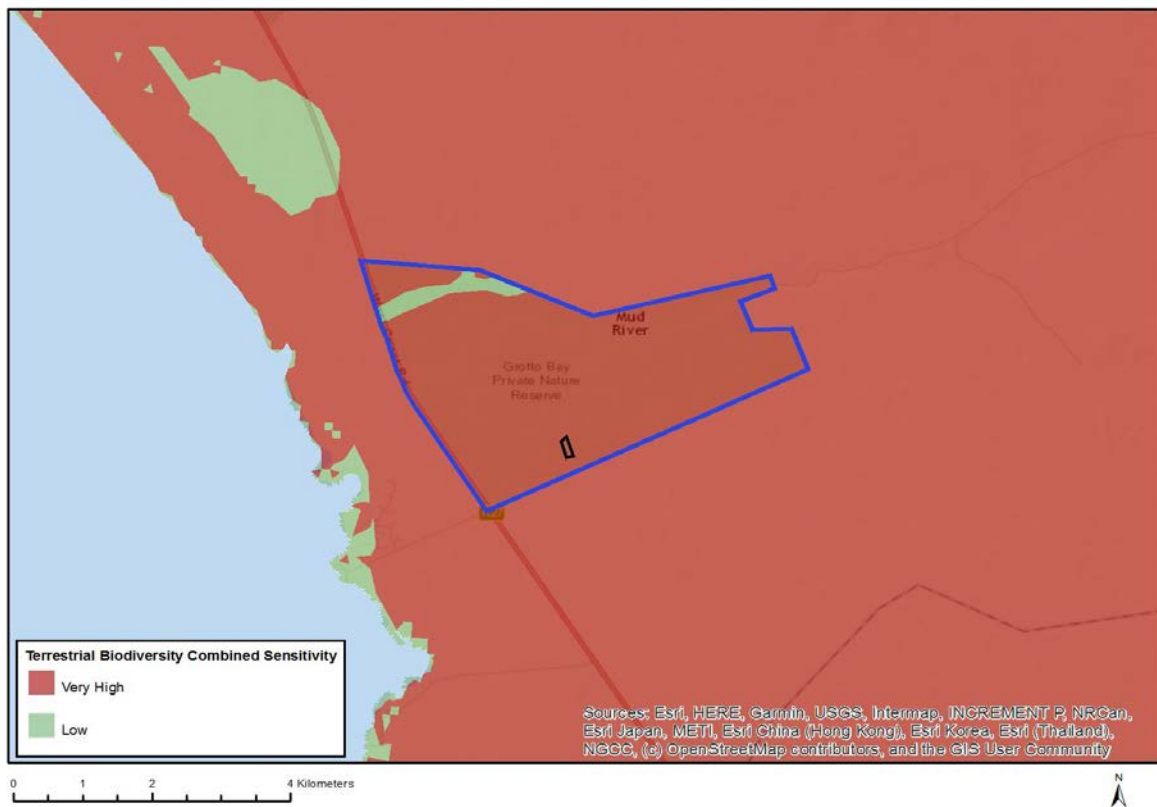


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

### Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

## MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

### Sensitivity Features:

Sensitivity	Feature(s)
Very High	Critically endangered ecosystem