



# Engie Graspan Solar Project, Northern Cape Province

Proposed Development Envelope for the Infrastructure layout considering environmental sensitivities

## Legend

- Railway
- Regional Road
- National Route
- Existing Power Line
- Additional Footprint and Development Envelope

## Environmental Features and Sensitivities

- Railway Buffer 100m (Heritage Sensitivity)
- NFEPA Wetlands/ Highveld Salt Pans
- NWA Regulated Area (500m)

## Northern Cape CBA:

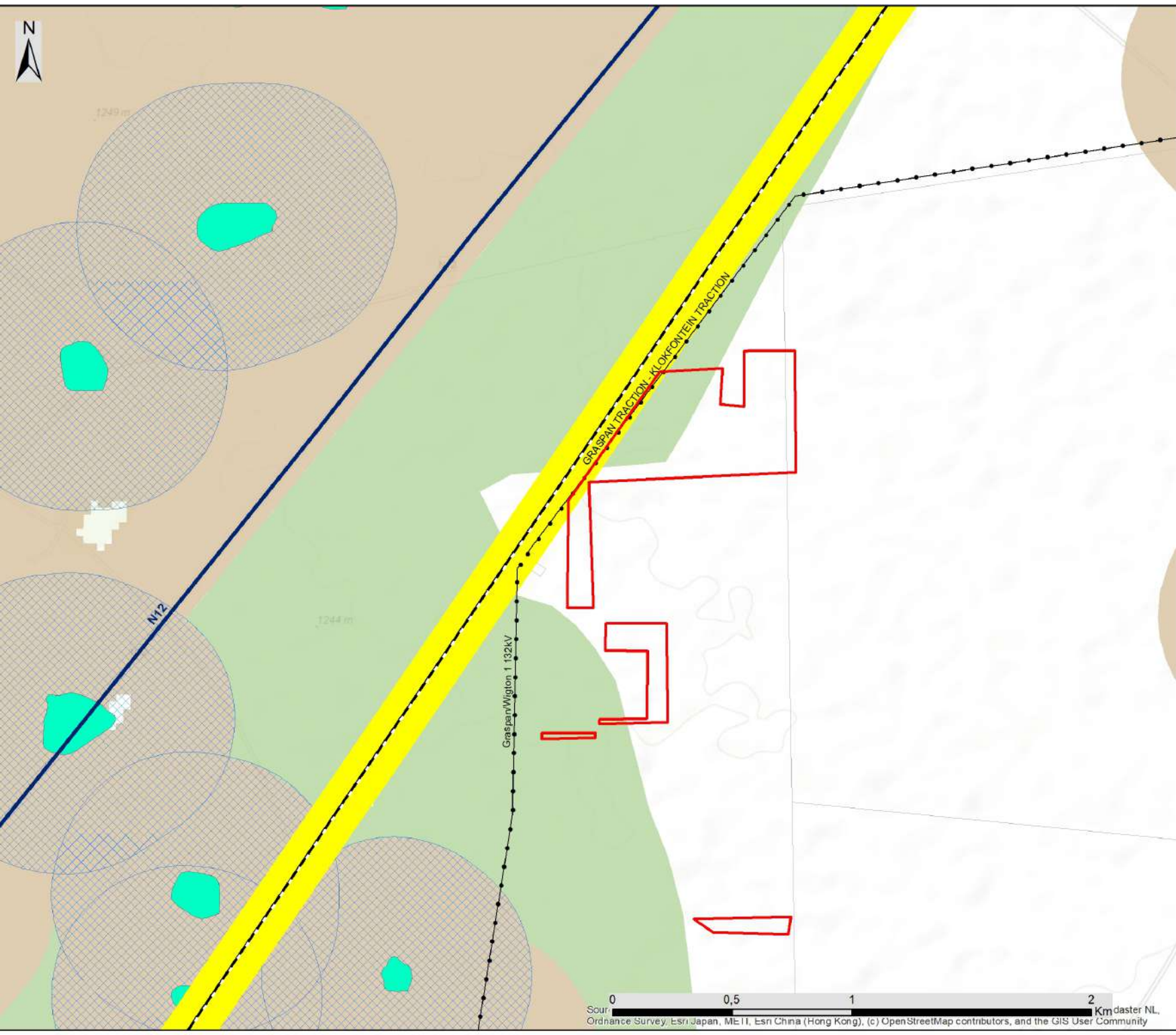
- Critical Biodiversity Area Two
- Ecological Support Area

Scale: 1:15 000  
Projection: LO25  
Map Reference: Engie Graspan Environmental Sensitivity

savannah  
environmental



0 0,5 1 2  
Source: Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



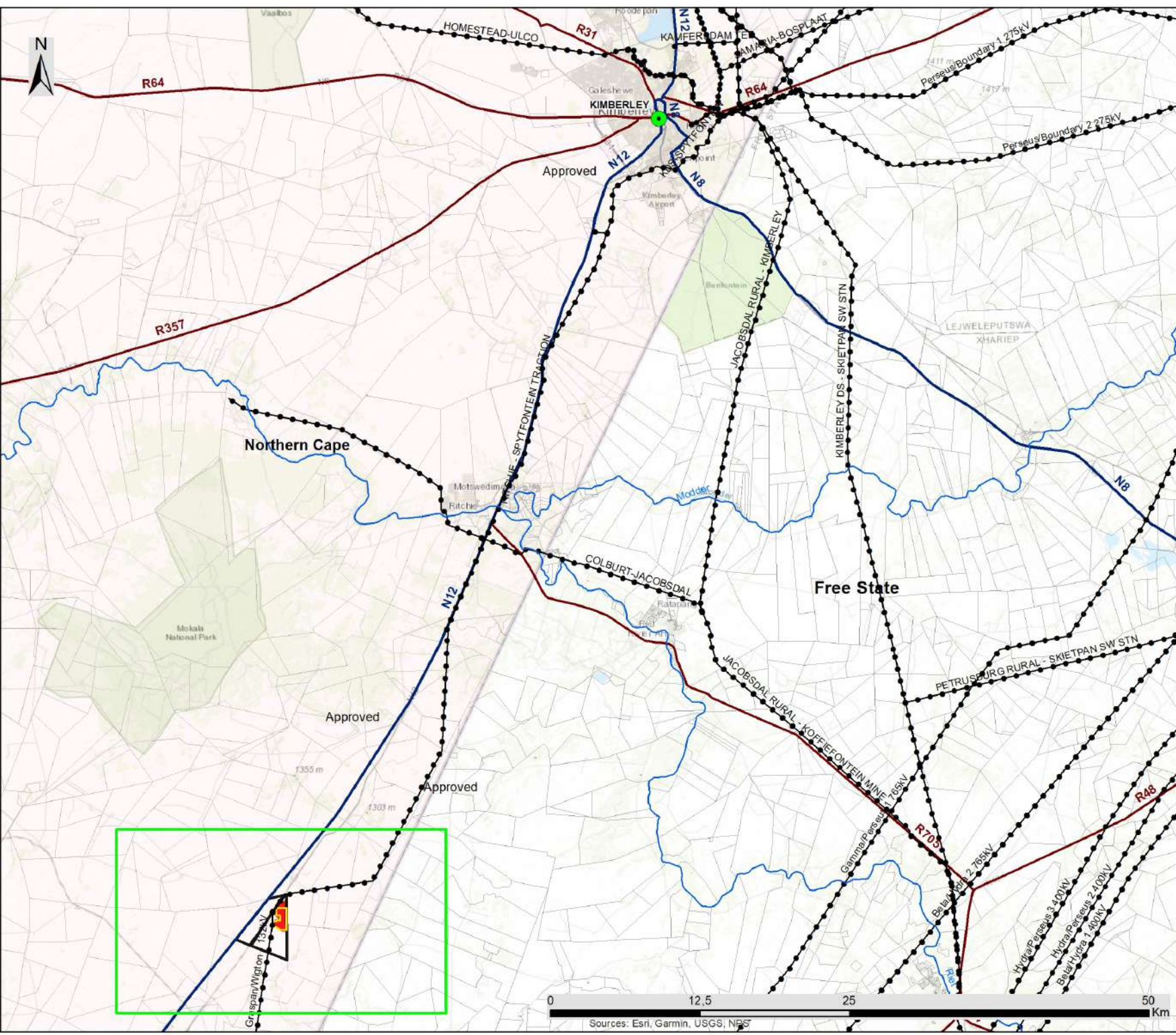


# Engie Graspan PV Additional Footprint, Northern Cape Province.

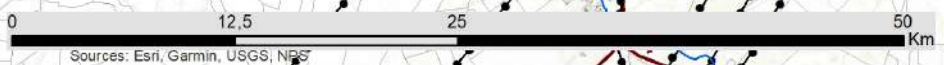
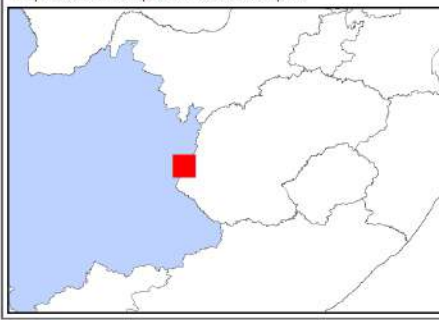
Locality Map

## Legend

- Town
- Rivers
- Existing Power Line
- National Route
- Farm Portion
- Existing Graspan Operating Area
- Project Site
- Graspan PV Operating Area
- Graspan PV Additional Footprint



Scale: 1:300 000  
 Projection: LO25  
 Map Reference: Graspan PV Additional Footprint



Sources: Esri, Garmin, USGS, NPS



# Engie Graspan Solar Project, Northern Cape Province

## Locality Map

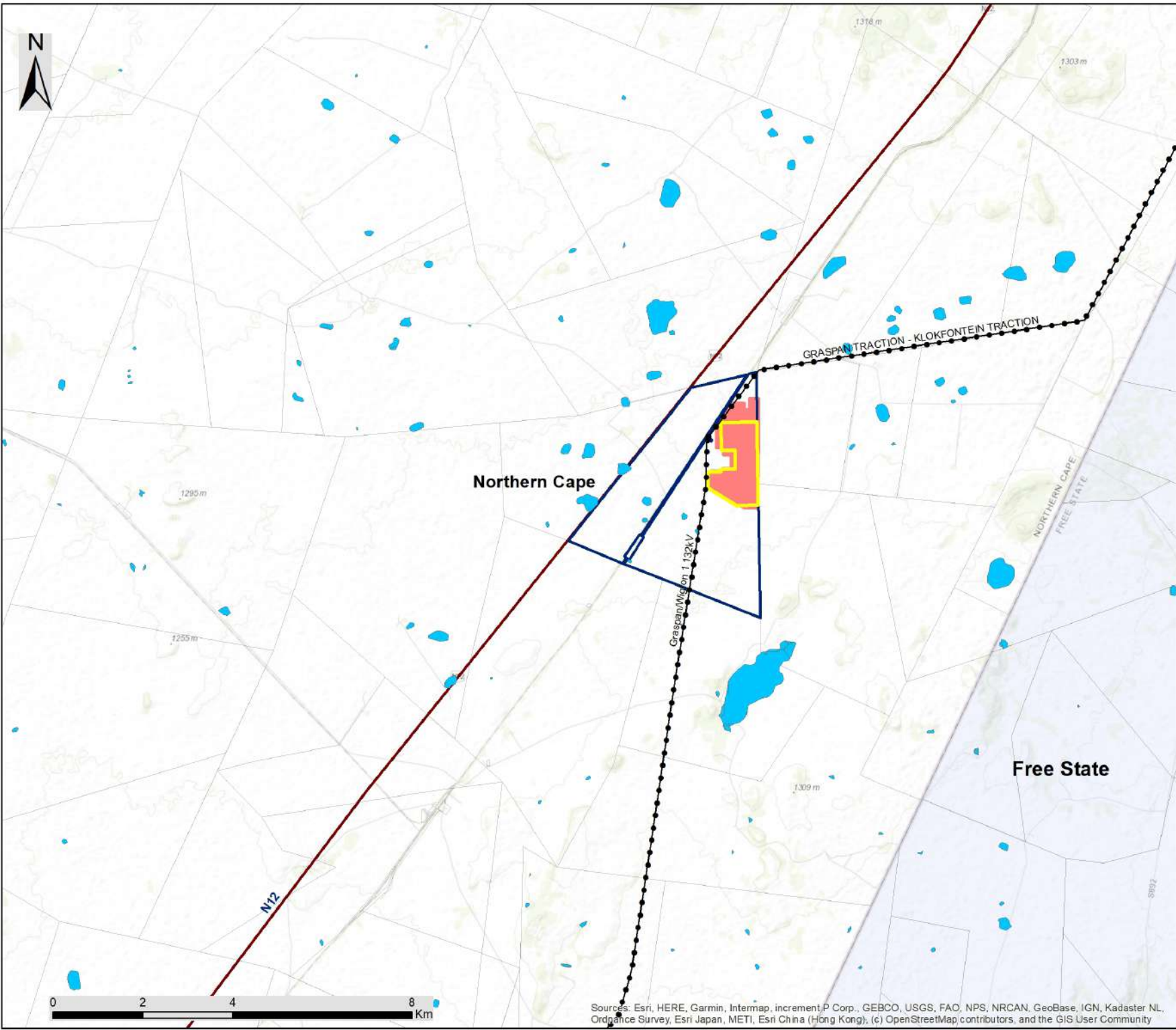
### Legend

- National Route
- Rivers
- Existing Power Line
- NFEPA\_Wetlands
- Engie Graspan Operating Area
- Existing EA
- Additional Footprint
- Farm Portion

1:80 000

Scale: 1:80 000  
Projection: LO25  
Map Reference: Engie Graspan Locality

savannah  
environmental



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



# Engie Graspan PV Additional Footprint, Northern Cape Province.

Locality Map

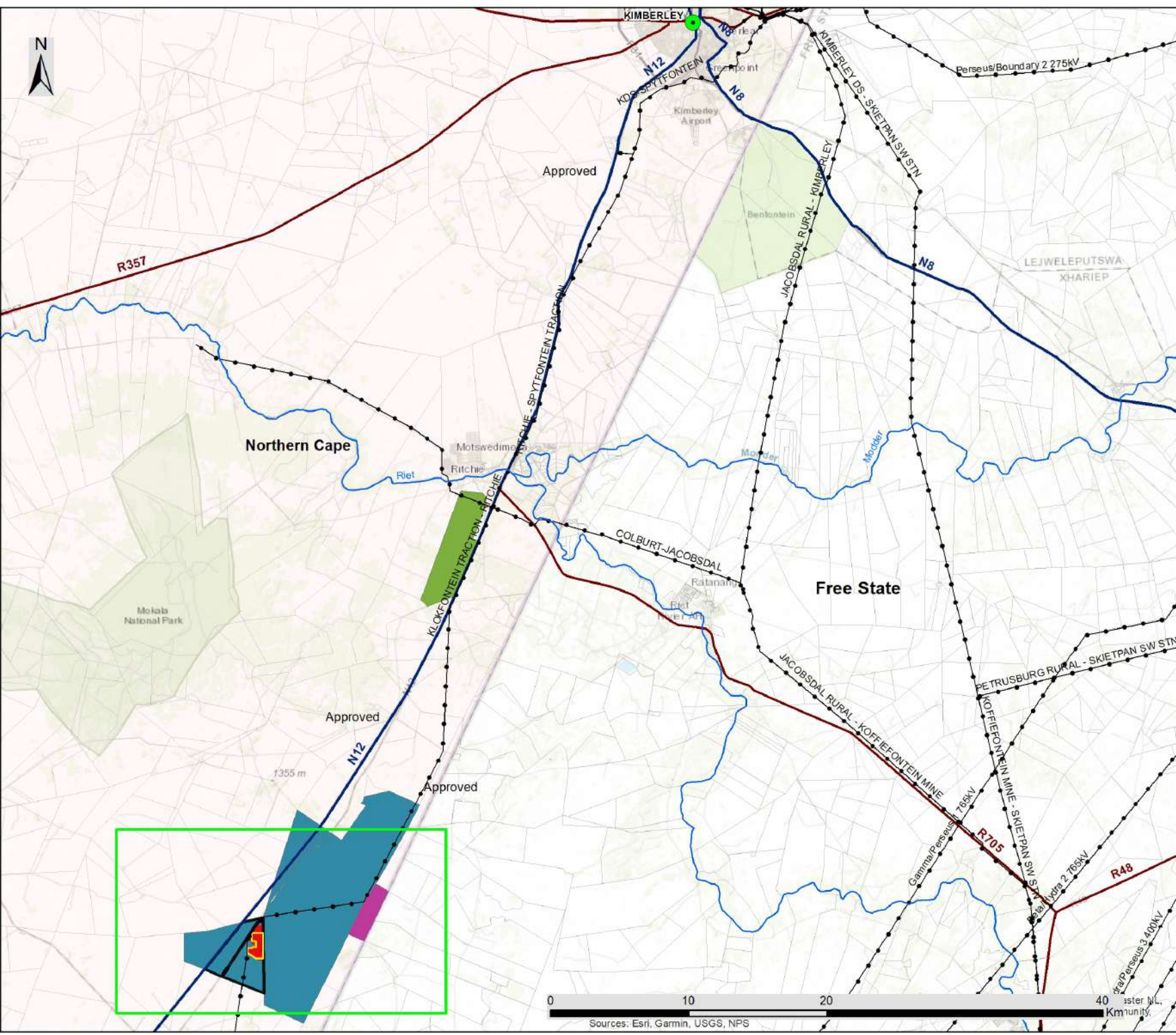
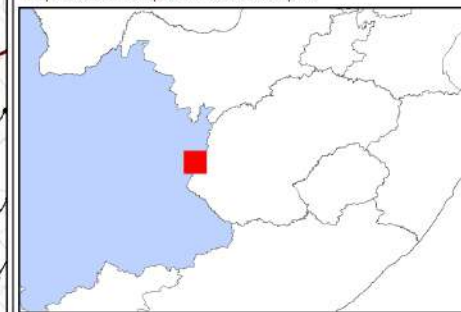
## Legend

- Town
- National Route
- Regional Road
- Rivers
- Existing Power Line
- Farm Portion
- Existing Graspan Operating Area
- Project Site
- Graspan PV Operating Area
- Graspan PV Additional Footprint

## Other Known Renewable Energy Facilities (based on affected property)

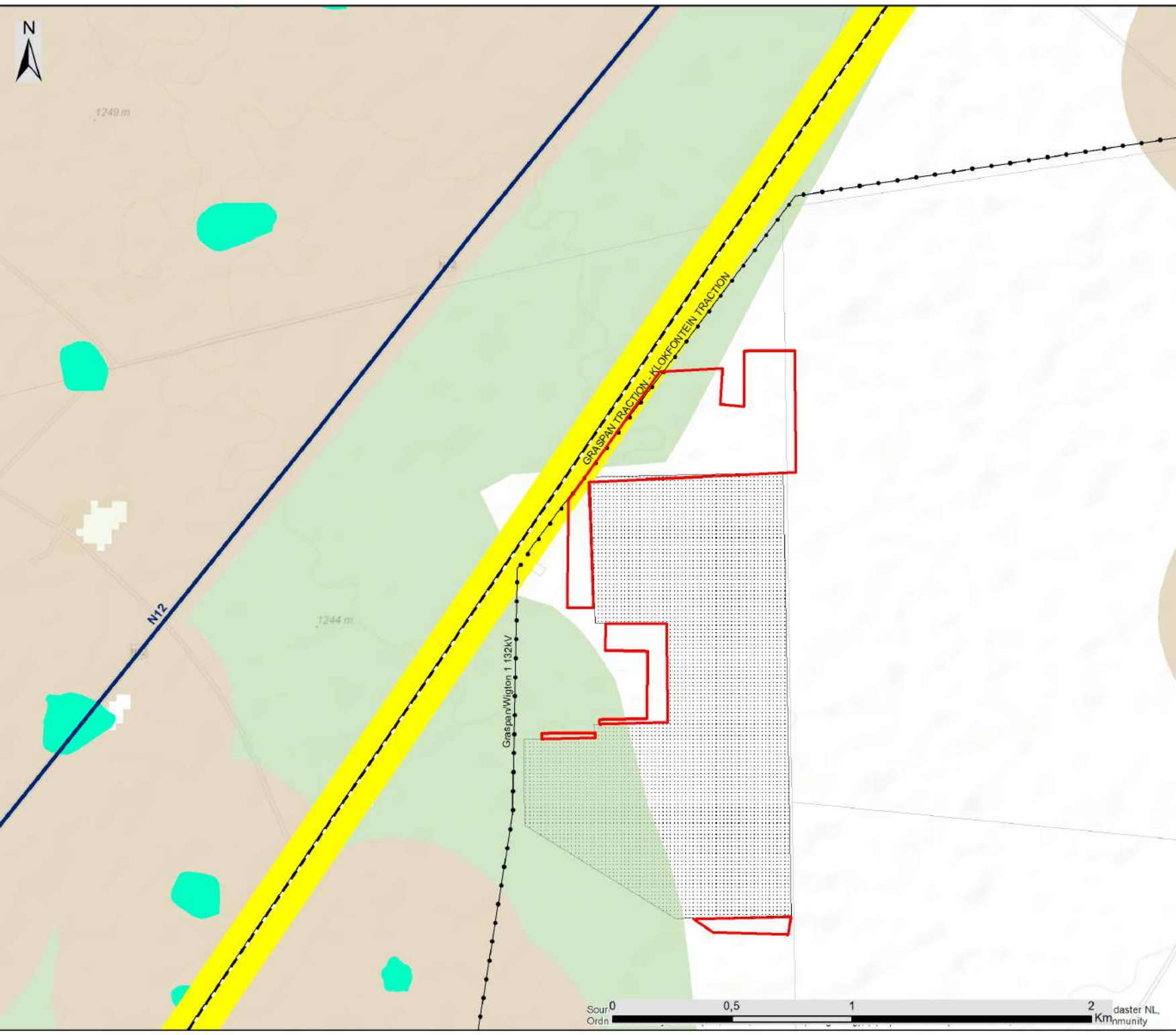
- Brakfontein Solar Power Plant (Approved)
- Carodex Solar Park (Approved)
- Solar Capital De Aar (Approved)

Scale: 1:260 000  
 Projection: LO25  
 Map Reference: Graspan PV Additional Footprint



Sources: Esri, Garmin, USGS, NPS





# Engie Graspan Solar Project, Northern Cape Province

Proposed Development Envelope for the Infrastructure layout considering environmental sensitivities

## Legend

- Railway
- National Route
- Regional Road
- Existing Power Line
- Additional Footprint and Development Envelope
- Engie Graspan Authorised Area

## Environmental Features and Sensitivities

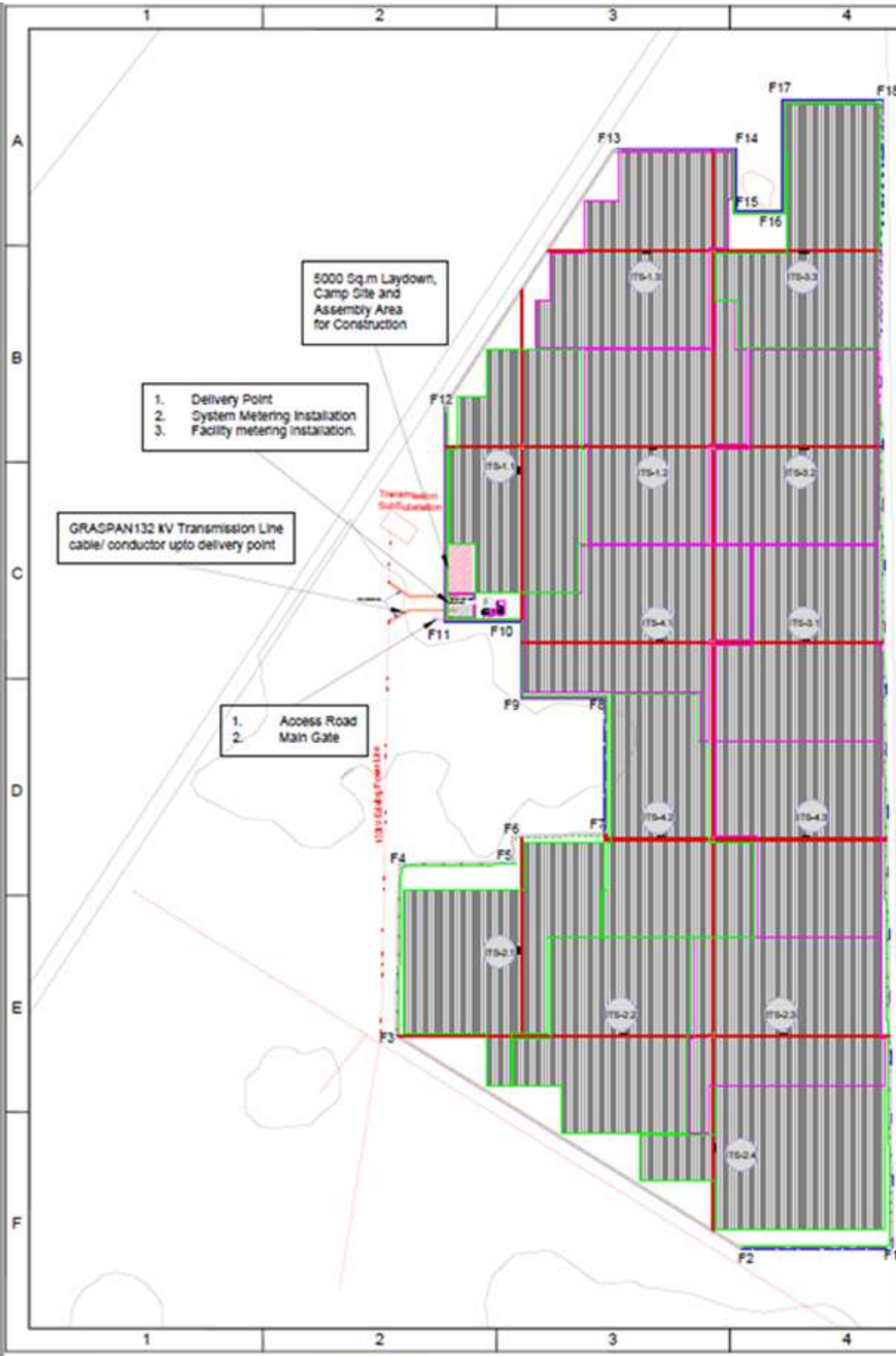
- Railway Buffer 100m (Heritage Sensitivity)
- NFEPA Wetlands/ Highveld Salt Pans

## Northern Cape CBA:

- Critical Biodiversity Area Two
- Ecological Support Area

Scale: 1:15 000  
Projection: LO25  
Map Reference: Engie Graspan Environmental Sensitivity





1. Delivery Point
2. System Metering Installation
3. Facility metering installation.

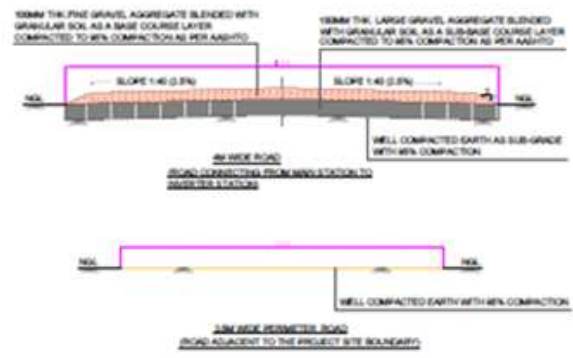
GRASPAN 132 kV Transmission Line cable/ conductor upto delivery point


1. Access Road
2. Main Gate

5000 Sq.m Laydown, Camp Site and Assembly Area for Construction

Setting Out Data of Solar Park Fencing Coordinate

ST	EASTING	NORTHING	LATITUDE	LONGITUDE
F1	257000.000.0	870674.000.0	20° 27' 49.976"	104° 28' 47.974"
F2	257000.000.0	870674.000.0	20° 27' 49.976"	104° 28' 47.974"
F3	256900.000.0	870574.000.0	20° 27' 49.976"	104° 28' 47.974"
F4	256800.000.0	870474.000.0	20° 27' 49.976"	104° 28' 47.974"
F5	256700.000.0	870374.000.0	20° 27' 49.976"	104° 28' 47.974"
F6	256600.000.0	870274.000.0	20° 27' 49.976"	104° 28' 47.974"
F7	256500.000.0	870174.000.0	20° 27' 49.976"	104° 28' 47.974"
F8	256400.000.0	870074.000.0	20° 27' 49.976"	104° 28' 47.974"
F9	256300.000.0	869974.000.0	20° 27' 49.976"	104° 28' 47.974"
F10	256200.000.0	869874.000.0	20° 27' 49.976"	104° 28' 47.974"
F11	256100.000.0	869774.000.0	20° 27' 49.976"	104° 28' 47.974"
F12	256000.000.0	869674.000.0	20° 27' 49.976"	104° 28' 47.974"
F13	255900.000.0	869574.000.0	20° 27' 49.976"	104° 28' 47.974"
F14	255800.000.0	869474.000.0	20° 27' 49.976"	104° 28' 47.974"
F15	255700.000.0	869374.000.0	20° 27' 49.976"	104° 28' 47.974"
F16	255600.000.0	869274.000.0	20° 27' 49.976"	104° 28' 47.974"
F17	255500.000.0	869174.000.0	20° 27' 49.976"	104° 28' 47.974"
F18	255400.000.0	869074.000.0	20° 27' 49.976"	104° 28' 47.974"
F19	255300.000.0	868974.000.0	20° 27' 49.976"	104° 28' 47.974"
F20	255200.000.0	868874.000.0	20° 27' 49.976"	104° 28' 47.974"
F21	255100.000.0	868774.000.0	20° 27' 49.976"	104° 28' 47.974"
F22	255000.000.0	868674.000.0	20° 27' 49.976"	104° 28' 47.974"
F23	254900.000.0	868574.000.0	20° 27' 49.976"	104° 28' 47.974"
F24	254800.000.0	868474.000.0	20° 27' 49.976"	104° 28' 47.974"
F25	254700.000.0	868374.000.0	20° 27' 49.976"	104° 28' 47.974"
F26	254600.000.0	868274.000.0	20° 27' 49.976"	104° 28' 47.974"
F27	254500.000.0	868174.000.0	20° 27' 49.976"	104° 28' 47.974"
F28	254400.000.0	868074.000.0	20° 27' 49.976"	104° 28' 47.974"
F29	254300.000.0	867974.000.0	20° 27' 49.976"	104° 28' 47.974"
F30	254200.000.0	867874.000.0	20° 27' 49.976"	104° 28' 47.974"
F31	254100.000.0	867774.000.0	20° 27' 49.976"	104° 28' 47.974"






PROJECT DETAILS			
Project Name	GRASPAN	Client	SPV
Module Type & Rating	Monocrystalline PERC 550W	Number of Modules	10000
Size	1710x890	Number of Strings	100
No. of Strings	100	Number of Inverters	50
Module per String	100	No. of Strings per Inverter	2
Module Type & Rating	Monocrystalline PERC 550W	Number of Inverters	50
Size	1710x890	Number of Strings per Inverter	2
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LEGEND	
Normal Road (3.0m)	1000 meters
Access Road (3.0m)	1000 meters
Access Road	1000 meters
132V Cable	10000 meters
DC Power Cable	20000 meters
AC Cable (110 to 115 kV)	1000 meters
AC Cable	1000 meters
String Conductor Size	475 mm
String Size	6075 meters
132V	1000 meters
132V Switching Transformer Size	1000 meters

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.  
 ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.

REV	DESCRIPTION	BY	DATE
05	SCENARIO A1	SP	2021-09-06
04	CLARIFICATION UPDATE	SP	2021-08-13
03	CLARIFICATION UPDATE	SP	2021-08-02
02	CLARIFICATION UPDATE	SP	2021-07-28
01	UPDATE WITH A NEW SCENARIO	SP	2021-07-23
00	FIRST VERSION	SP	2021-07-23

FOR INFORMATION ONLY



CLIENT:

PROJECT: SPV- SITE 1 GRASPAN 75 MW<sub>DC</sub>/89.36MW<sub>AC</sub> (approx. 10000 solar panels) SCENARIO A1

DRAWING: GENERAL ARRANGEMENT LAYOUT

SCALE: 1:10 / 10%	SHEET: 1 / 1
REVISION: 05	DATE: 2021-09-06

DIN A3