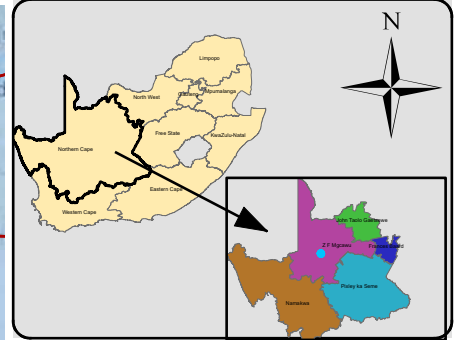
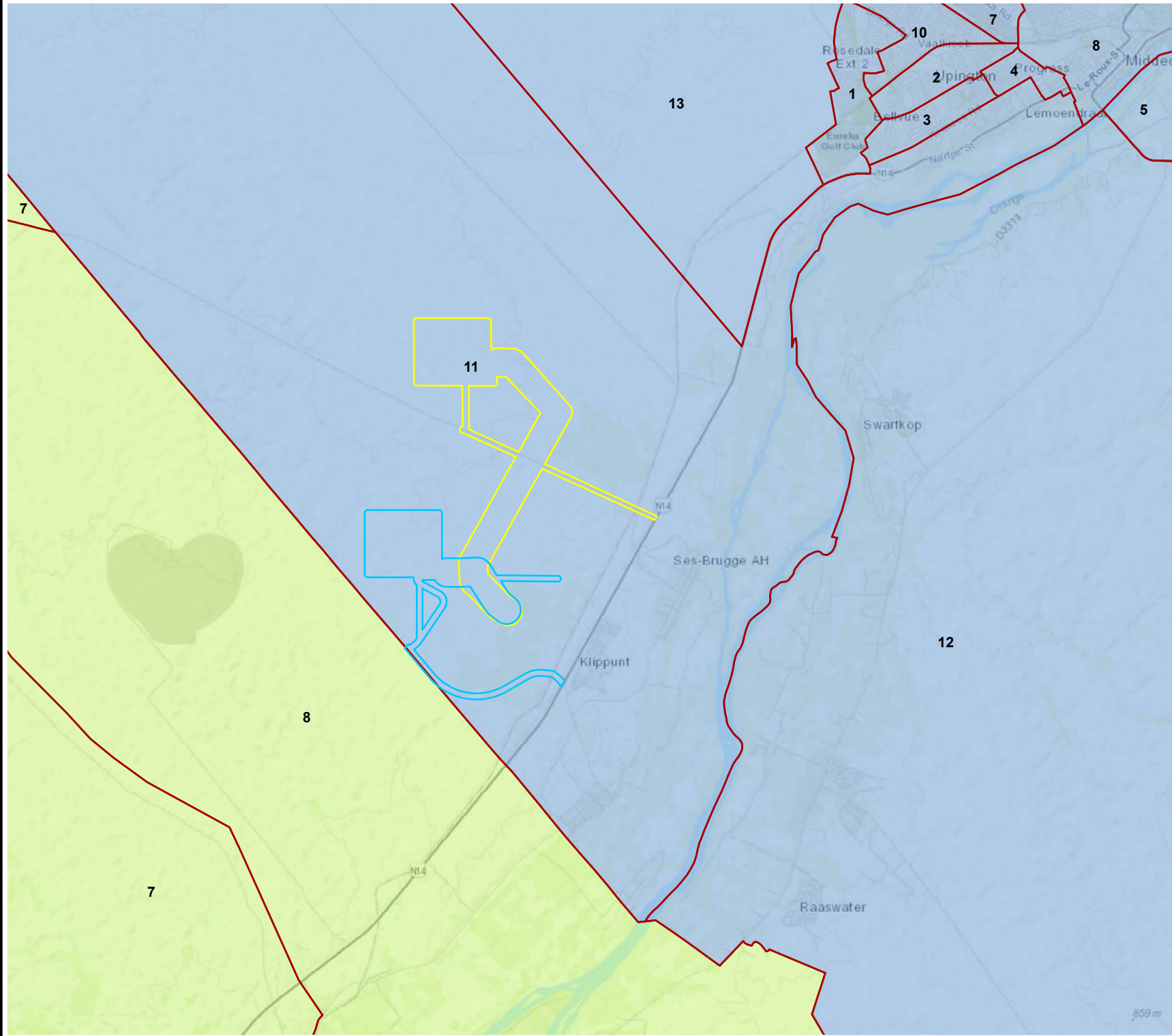


APPENDIX A : MAPS

APPENDIX A-1 : CADASTRAL MAP

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Legend

-  Site_A_Study Area
-  Site B Study Area
-  Wards
-  Kai Garib Local Municipality
-  Dawid Kruiper Local Municipality

KIWANO SOLAR PV



CADASTRAL MAP

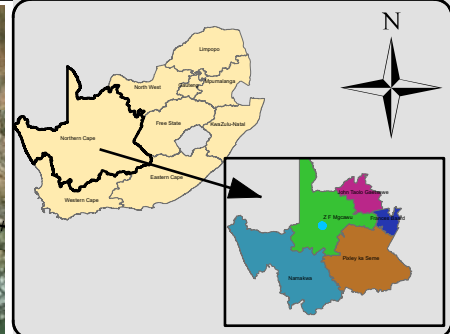
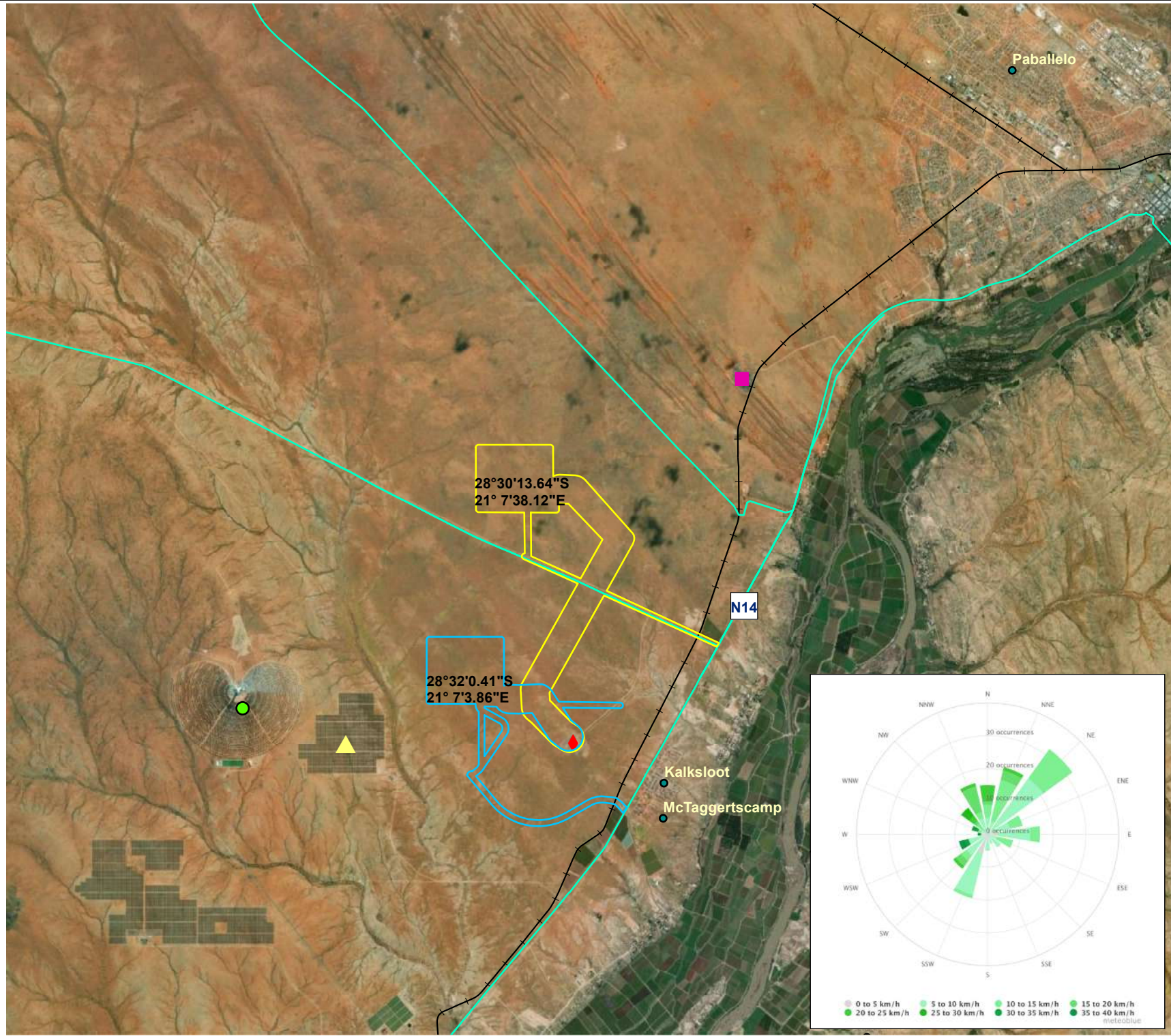
1 100 550 0 1 100 Kilometers

Hartebeesthoek94 Lo21 (E-N)



GIS	JM	28 Sep 2022	PROJECT No. 21139	
CHECK	MV	28 Sep 2022	SCALE 1:90 000	
REVIEW	MV	28 Sep 2022	A3	REV 0

APPENDIX A-2 : LOCALITY MAP



Legend

- Site_A_Study Area
- Site_B_Study Area
- Place_Names
- Landfill
- Upington_Substation
- Sirius_1_Solar_PV_Plant
- Khi_Solar_One
- Roads
- Rail

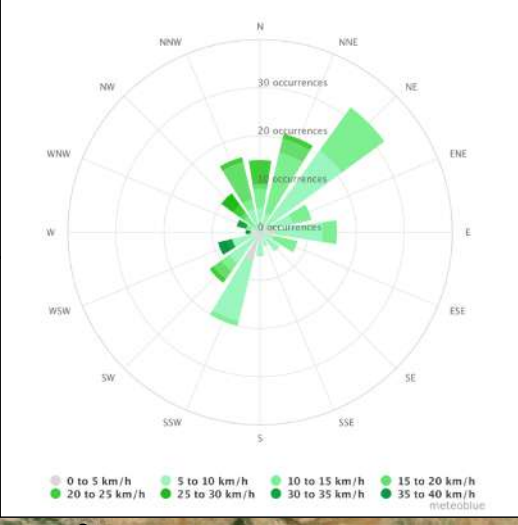
KIWANO SOLAR PV



LOCALITY MAP



Hartebeesthoek94 Lo21 (E-N)



APPENDIX A-3 : LAYOUT MAP

Kiwano Solar PV Development

Legend

Kiwano Site A

- Admin Building
- Battery facility
- PV Facility
- Infrastructure room
- Road
- Security Building
- Site Boundary
- Transmission RR
- Transmission lines
- Transmission tower
- Water supply line
- Workshop Store
- Control Room
- Temporary laydown area

Kiwano Site B

- Admin Building
- Battery Facility
- PV Facility
- Infrastructure Room
- Road
- Security Building
- Site Boundary
- Transmission lines
- Water supply line
- Workshop Store
- Control Room
- Temporary laydown area



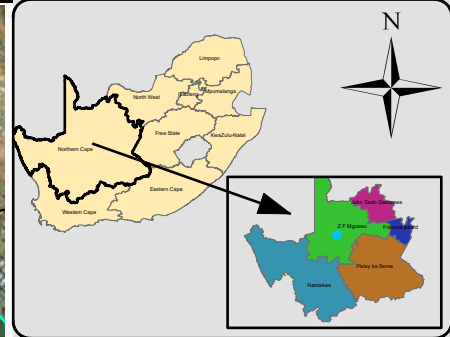
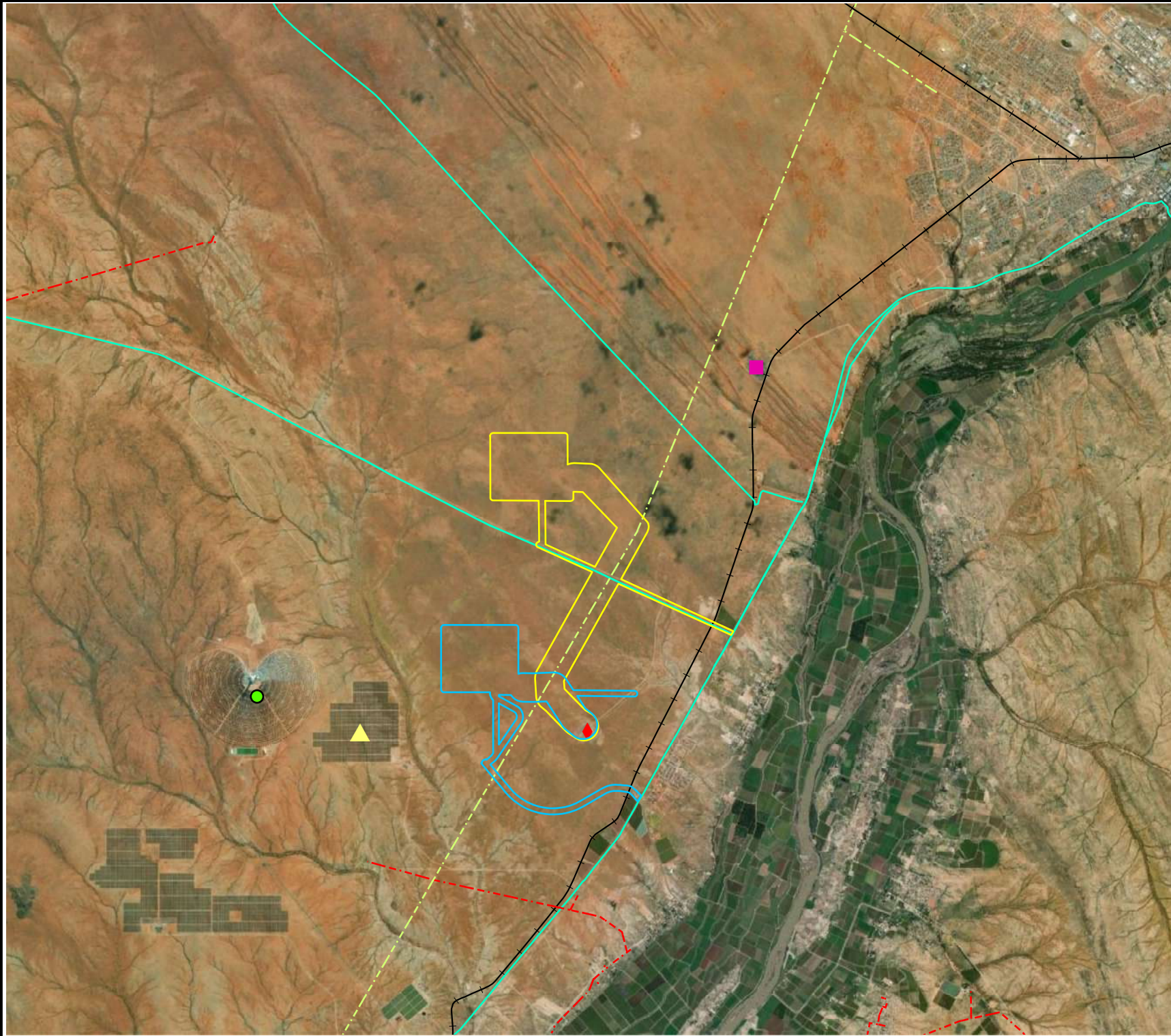
Maxar



GIS	A. Esterhuizen	22 12 2022	Project Number:
Check	L. Captain	12 12 2022	Scale:
Review	L. Captain	12 12 2022	Rev 1.

APPENDIX A-4 : EXITING INFRASTRUCTURE MAP

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Legend

- Site_A_Study Area
- Site_B_Study Area
- Landfill
- Eskom_Powerlines_HV
- Eskom_Powerlines_MV
- Roads
- Upington_Substation
- Sirius_1_Solar_PV_Plant
- Khi_Solar_One
- Rail

KIWANO SOLAR PV



EXISTING INFRASTRUCTURE MAP

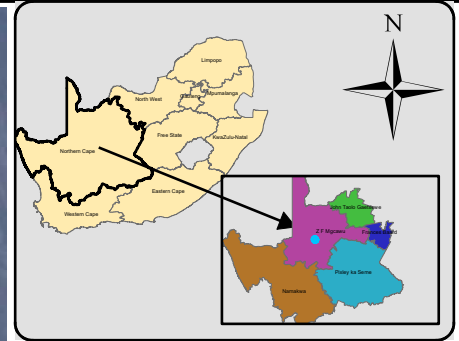


Hartebeesthoek94 Lo21 (E-N)

ZITHOLELE CONSULTING	GIS	JM	28 Sep 2022	PROJECT No. 21139	
	CHECK	MV	28 Sep 2022	SCALE 1:90 000	
	REVIEW	MV	28 Sep 2022	A3	REV 0

APPENDIX A-5 : REDZ MAP

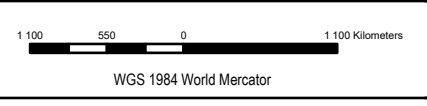
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- Legend**
- Site_A_Study Area
 - Site B Study Area
 - Phase 1_REDZs_Upington Solar
 - Northern Powerline corridor

KIWANO SOLAR PV

REDZ MAP



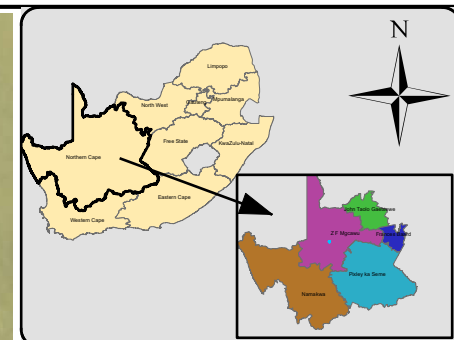
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	CHECK	MV	28 Sep 2022	SCALE 1:600 000	
	REVIEW	MV	28 Sep 2022	A3	REV 0

APPENDIX A-6 : REAA MAP

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FID	APPLICANT	PRJ_STATUS
10	McTaggart PV 1 (Pty) Ltd	Approved
36	ILEnergy Development (Pty) Ltd	Approved
37	ILEnergy Development (Pty) Ltd	Approved
38	ILEnergy Development (Pty) Ltd	Approved
39	ILEnergy Development (Pty) Ltd	Approved
80	Sirius Phase Two PV Solar Energy (Pty) Ltd	Approved
170	Kimbratax (Pty) Ltd	In process
171	Kimbratax (Pty) Ltd	Approved
172	Kimbratax (Pty) Ltd	In process
173	Kimbratax (Pty) Ltd	Approved
266	APS Invest One	Approved
280	BrightSource Energy South Africa (Pty) Ltd	Approved
281	BrightSource Energy South Africa (Pty) Ltd	Approved
291	Abengoa Solar Power South Africa (Pty) Ltd	Approved
299	Joram Solar (Pty) Ltd	Approved
312	AEP Bloemsmoond Solar 2 (Pty) Ltd	Approved

FID	APPLICANT	PRJ_STATUS
639	28 Degrees Energy Pty Ltd	Approved
640	28 Degrees Energy Pty Ltd	Approved
943	To review	Approved
951	To review	In process
992	To review	In process
1192	To review	In process
1269	To review	In process
1276	To review	In process
1312	To review	In process
1345	Albebaran SA (Pty) Ltd	In process
1353	Abengoa Solar Power South Africa (Pty) Ltd	Approved
1354	To review	Approved
1380	To review	In process
1429	To review	Approved
1449	NetWorx S28 Energy (Pty) Ltd	Approved
1577	Solaraire Direct Southern Africa	Approved



Legend

- Site A Study Area
- Site B Study Area
- Erf
- Farm

TECHNOLOGY

- In Process
- No Technology
- Solar CSP
- Solar PV
- Kheis Local Municipality
- Dawid Kruiper Local Municipality
- Kai Garib Local Municipality

KIWANO SOLAR PV



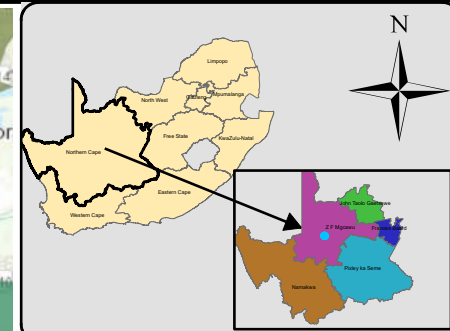
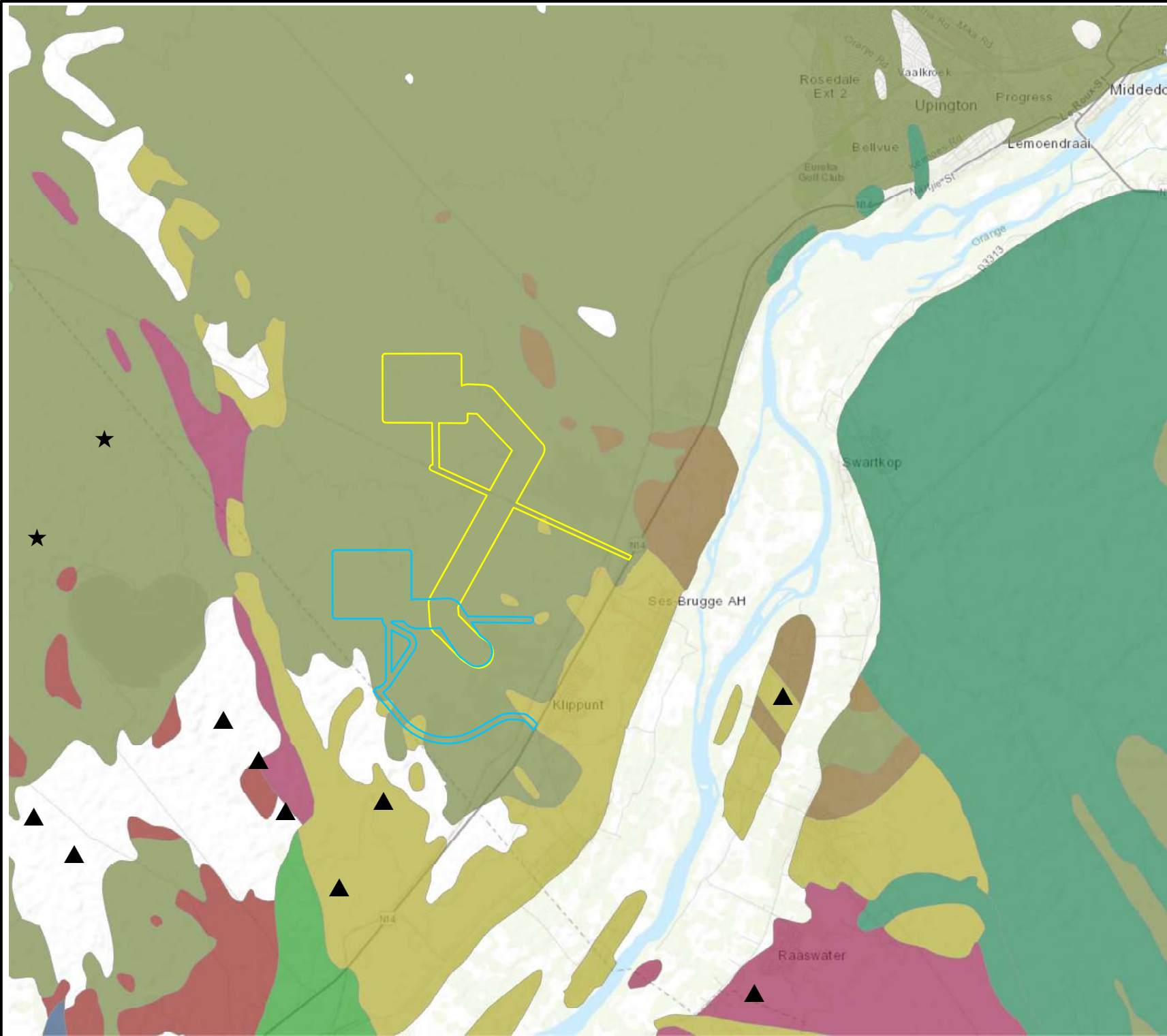
REEAD MAP

1 100 550 0 1 100 Kilometers

WGS 1984 World Mercator

FID	APPLICANT	PRJ_STATUS
1841	Gordonia Solar PV (Pty) Ltd	Approved
1842	Hari PV (Pty) Ltd	Approved
1843	Karroid PV (Pty) Ltd	Approved
1844	Shrubland PV (Pty) Ltd	Approved
1847	Dyasons Klip 5 (Pty) Ltd	Approved
1864	AEP Bloemsmoond Solar 5 (Pty) Ltd	Approved
1865	AEP Bloemsmoond Solar 4 (Pty) Ltd	Approved
1868	Sirius Solar PV Project Two RF (Pty) Ltd	Approved
1906	Karroid PV (Pty) Ltd	Approved

APPENDIX A-7 : GEOLOGY MAP



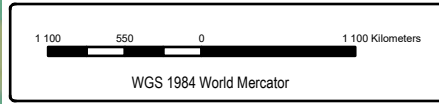
Legend

- Site_A_Study Area
- Site B Study Area
- Upington Mineral Areas**
 - ★ Mine, in disuse
 - ▲ Mineral occurrence/deposit
- Upington Geology Lithostrat**
 - BETHESDA
 - DYASONS KLIP GNEISS
 - FRIERSDALE CHARNOCKITE
 - GORDONIA
 - JANNELSEPAN
 - KANONEILAND GRANITE
 - KLIPKRAAL GRANITE
 - LOUISVALE GRANITE
 - RIEMVASMAAK GNEISS
 - TOESLAAN

KIWANO SOLAR PV

The Eskom logo, featuring a stylized blue 'E' followed by the word 'Eskom' in a blue sans-serif font.

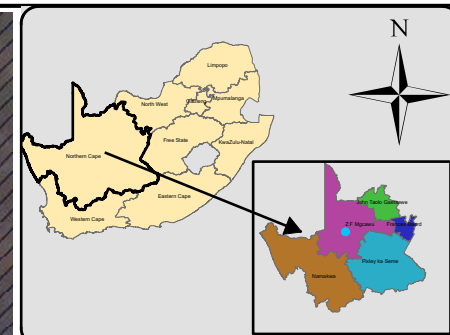
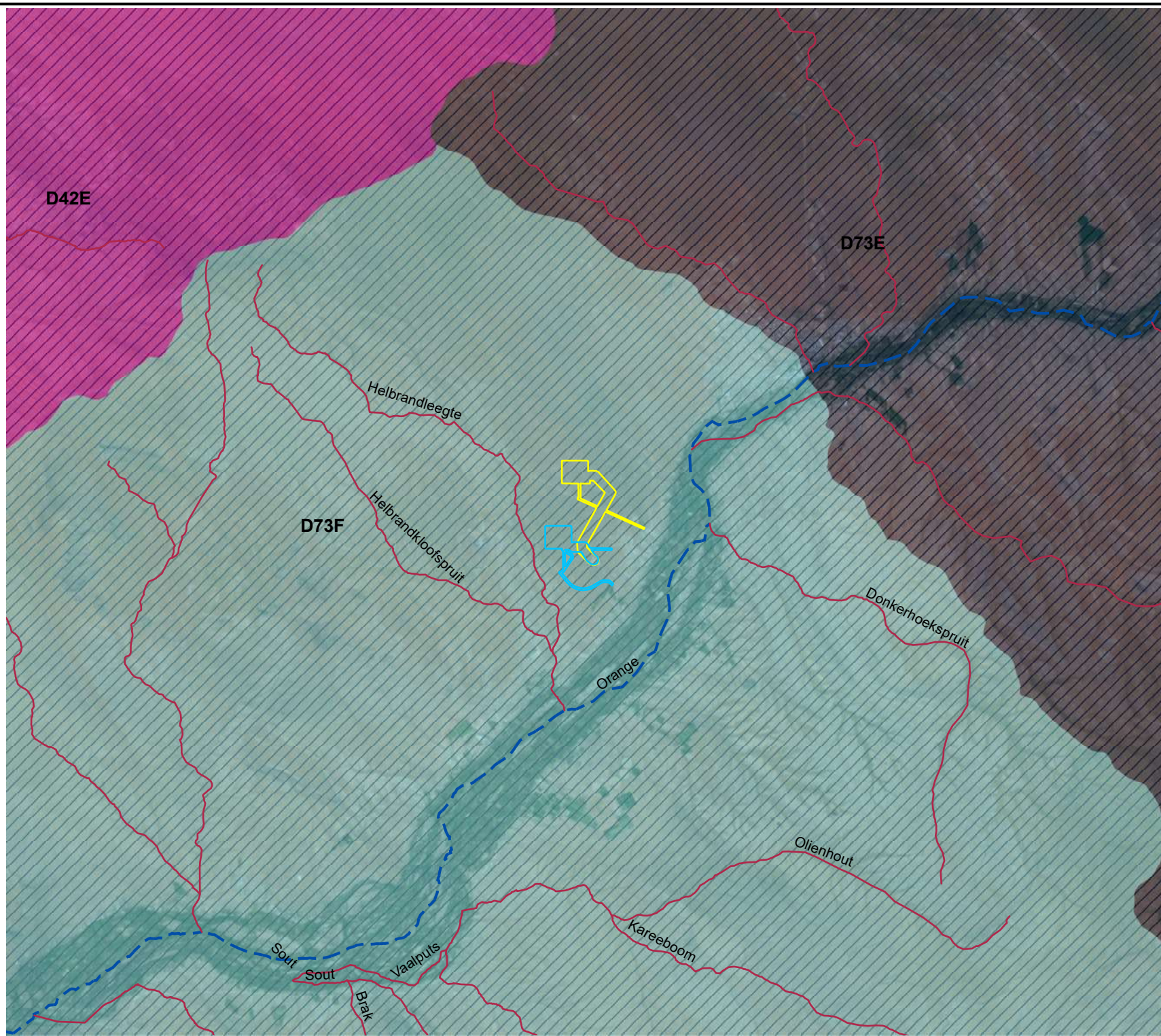
GEOLOGY MAP



ZITHOLELE CONSULTING	GIS	JM	28 Sep 2022	PROJECT No. 21139	
	CHECK	MV	28 Sep 2022	SCALE 1:100 000	
	REVIEW	MV	28 Sep 2022	A3	REV 0

APPENDIX A-8 : HYDROLOGY MAP

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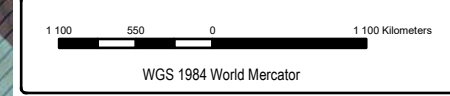


Legend

- Site_A_Study Area
- Site B Study Area
- Non-Perennial River
- Orange River
- Quaternary Catchment Area (D73F)
- Quaternary_catchments (D73E)
- Quaternary_catchments (D42E)
- Lower Orange Water Managenet Area

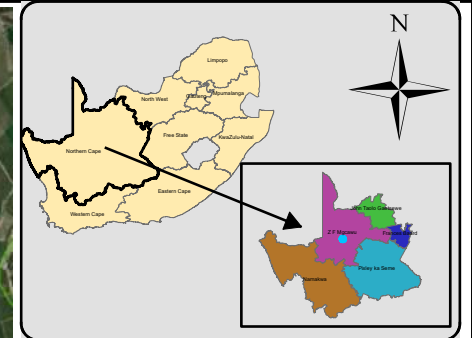
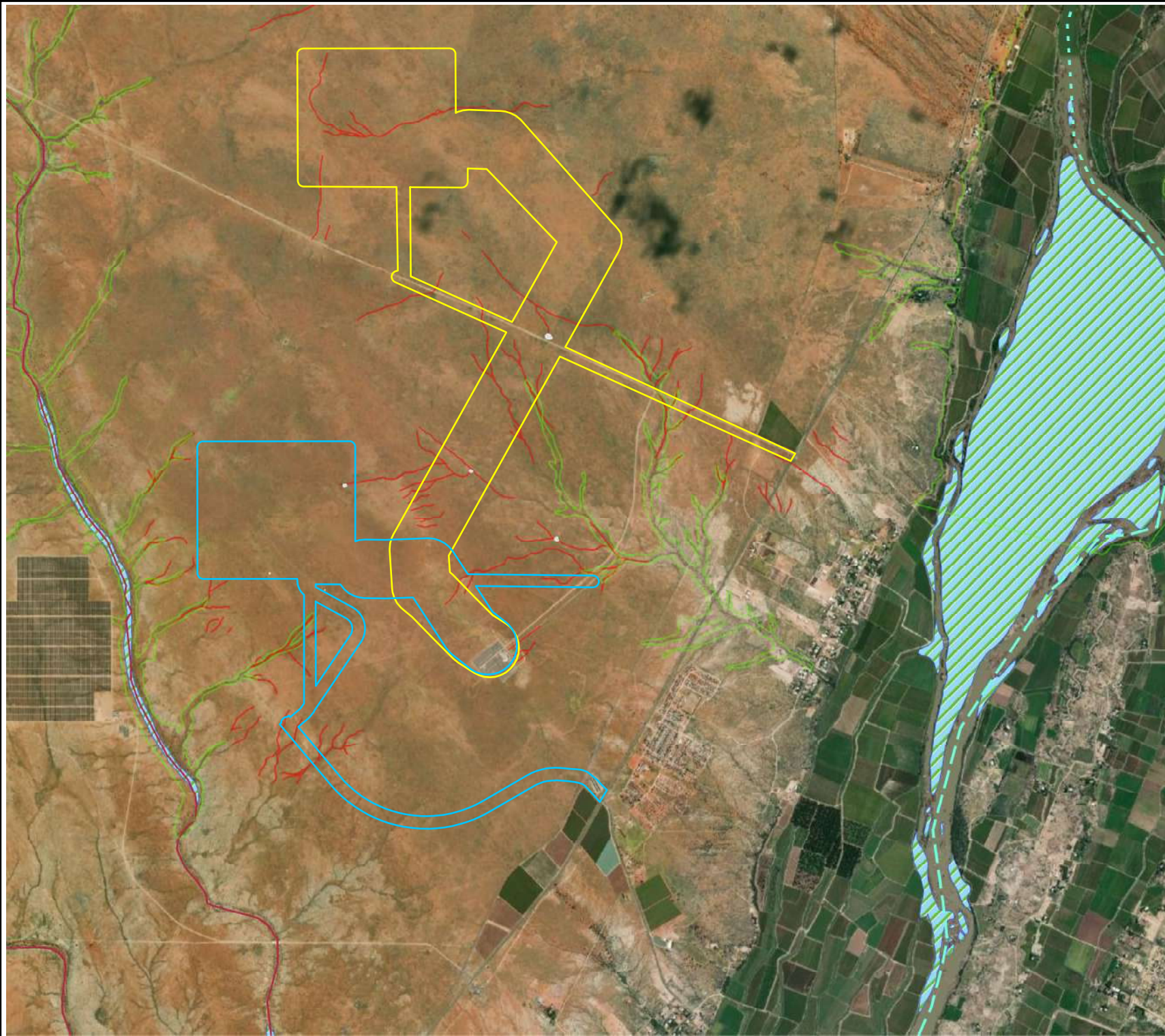
KIWANO SOLAR PV

HYDROLOGICAL MAP



ZITHOLELE	GIS	JM	28 Sep 2022	PROJECT No. 21139	
	CHECK	MV	28 Sep 2022	SCALE 1:300 000	
	REVIEW	MV	28 Sep 2022	A3	REV 0

APPENDIX A-9 : AQUATIC MAP



Kiwano PV

Site A Study Area
Site B Study Area

National biodiversity Assessment (2018)

Non-Perennial River
Orange River
Wetlands

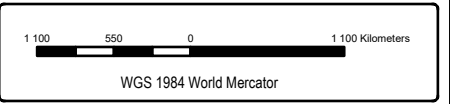
Specialist layers

Riparian zones
Pans
Drainage Lines

KIWANO SOLAR PV

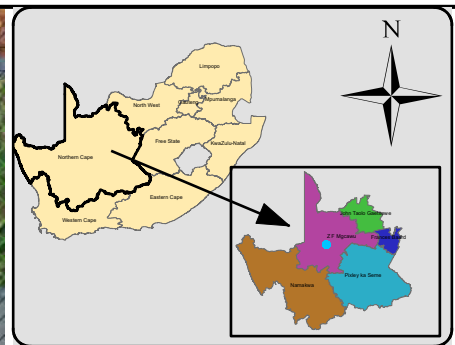
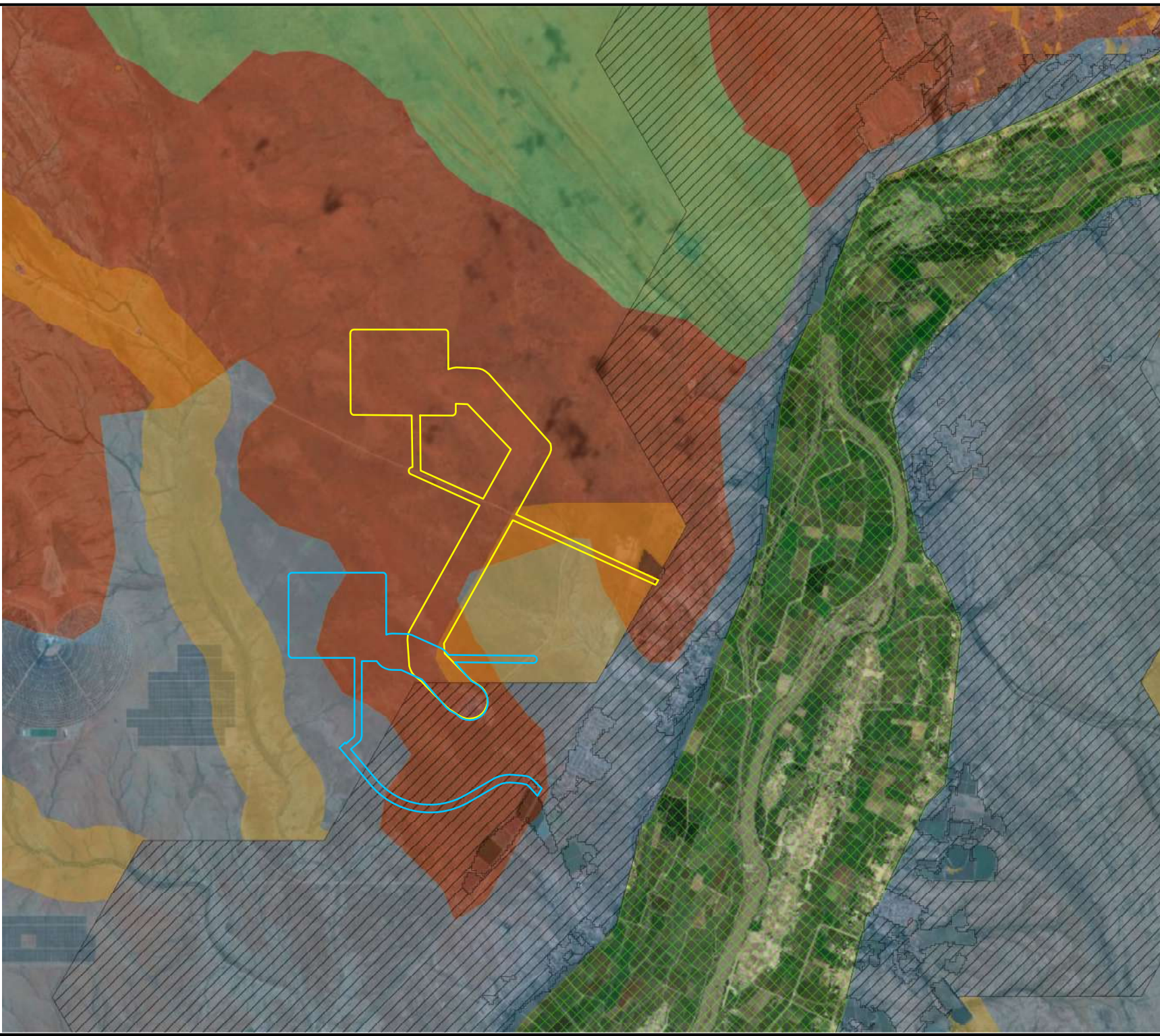


AQUATIC MAP



	GIS	JM	28 Sep 2022	PROJECT No. 21139	
	CHECK	MV	28 Sep 2022	SCALE 1:50 000	
	REVIEW	MV	28 Sep 2022	A3	REV 0

APPENDIX A-10 : VEGETATION AND SENSITIVITY MAP



Kiwano PV

Site A Study Area

Site B Study Area

National Biodiversity Assessment (2018)

Lower Gariep Alluvial Vegetation (Endangered)

Bushmanland Arid Grassland (Least Concern)

Gordonia Duneveld (Least Concern)

Kalahari Karroid Shrubland (Least Concern)

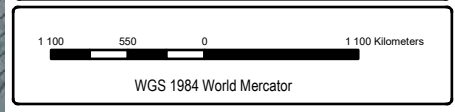
Northern Cape C-Plan

Critical Biodiversity Area

Ecological Support Area

KIWANO SOLAR PV

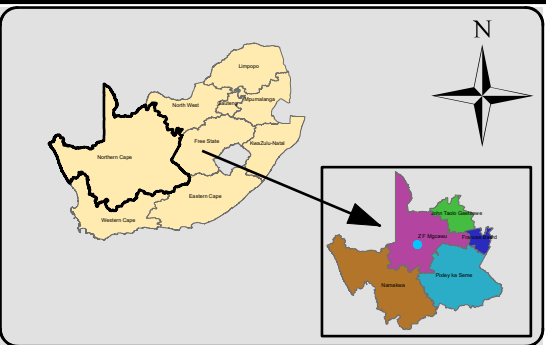
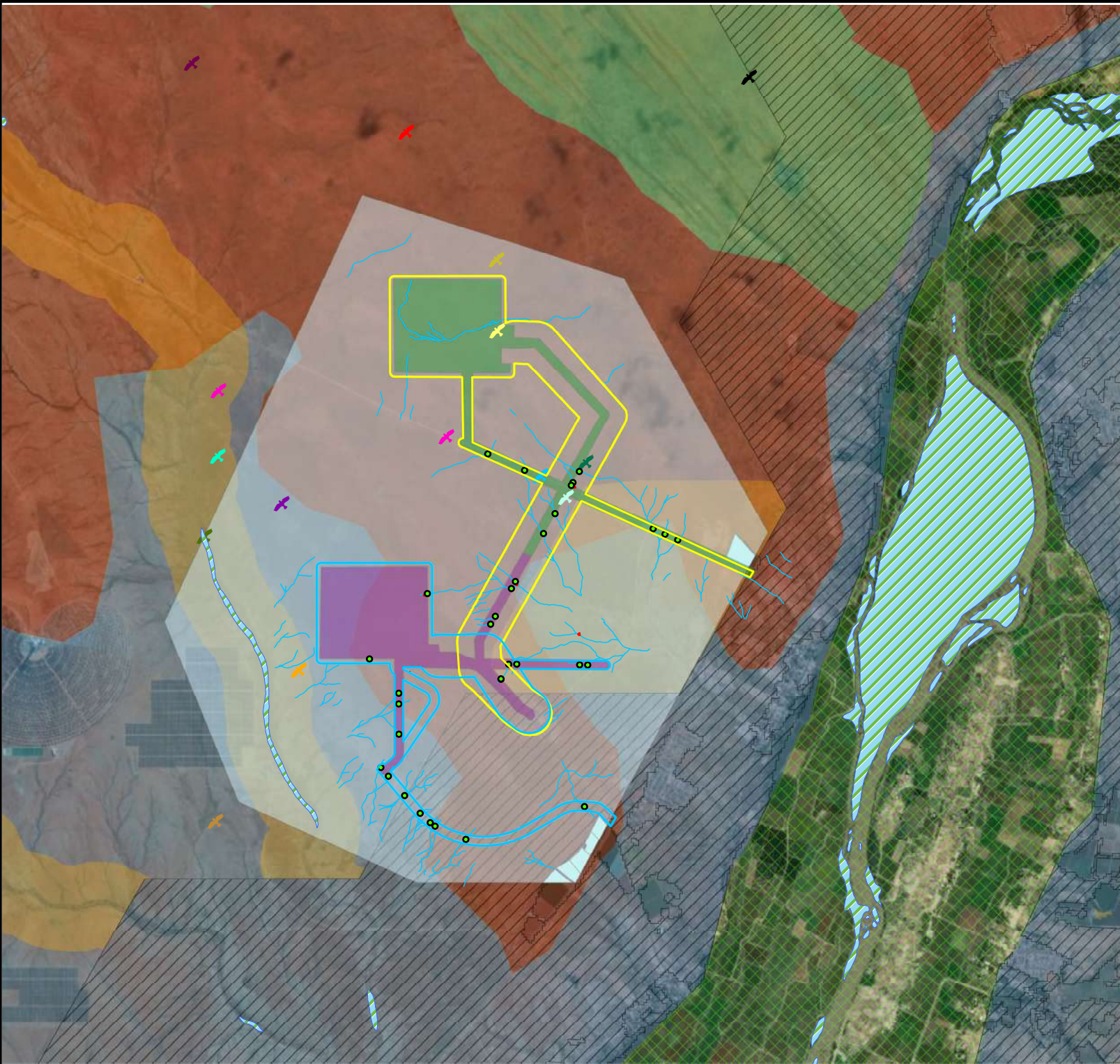
SENSITIVITY MAP



	GIS	JM	07 Sep 2022	PROJECT No. 21139
	CHECK	MV	07 Sep 2022	SCALE 1:80 000
	REVIEW	MV	07 Sep 2022	A3 REV 0

APPENDIX A-11 : COMPISITE SITE SENSITIVITY MAP

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Legend

- Site_A_Study Area
- Site B Study Area
- Drainage Possible Impact Point
- Impact Points Option A
- Wetlands
- Pans
- Drainage Features
- Karroid grassland**
- Low
- Medium
- Agriculture Theme - Low Sensitivity
- Annual Crop Cultivation - High Sensitivity
- High impacts drain
- Site_A_Study Area
- Site B Study Area
- Critical Biodiversity Area
- Ecological Support Area
- Lower Gariep Alluvial Vegetation (Endangered)
- Bushmanland Arid Grassland (Least Concern)
- Gordonia Duneveld (Least Concern)
- Kalahari Karroid Shrubland (Least Concern)

Important bird

- 1000x Amur Falcons
- 200+ abdim storks fly N (345-360°)
- 2x Lanner Falcons
- 2x Pale Chanting Goshawks
- 50 + Amur Falcons
- 50+ Abdim storks perch and fly N (345-360°)
- 6x Amur Falcons
- 6x Amur Falcons 1x kestrel Falcon
- 9x Amur 1x Red Footed Falcon
- Black Chested Snake Eagle
- Greater Kestrel
- Pale Chanting Goshawk
- Pale chanting Goshawk
- Pale chanting goshawk
- Pygmy Falcon
- Sociable weavers nest

KIWANO SOLAR PV



SENSITIVITY MAP

1 000 500 0 1 000 Kilometers WGS 1984 World Mercator



GIS	JM	10 Oct 2022	PROJECT No. 21139
CHECK	MV	10 Oct 2022	SCALE 1:70 000
REVIEW	MV	10 Oct 2022	A3 REV 0