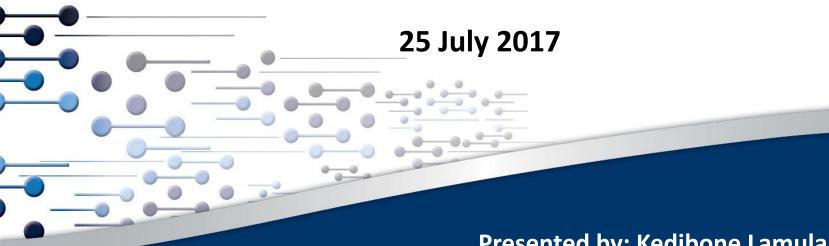






# EXTENSION OF A STRATEGIC ENVIRONMENTAL ASSESSMENT TO FACILITATE THE EFFICIENT AND EFFECTIVE IMPLEMENTATION OF WIND AND SOLAR PHOTOVOLTAIC ENERGY DEVELOPMENT IN SOUTH AFRICA

#### **Environmental Considerations**



Presented by: Kedibone Lamula (SANBI)

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#### **Protected Areas – Wind and Solar**

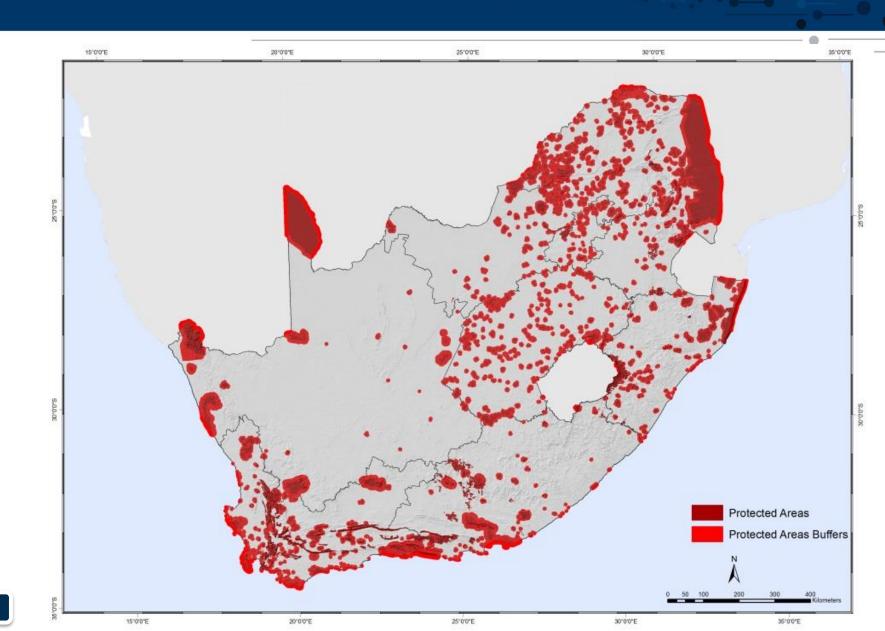
Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)	Mapping Sensitivity	Sensitivity (Solar)
		Marine Protected Areas	Very high sensitivity	feature	Very high sensitivity	feature
		National Parks	Very high sensitivity	feature	Very high sensitivity	feature
		Nature Reserves	Very high sensitivity	feature	Very high sensitivity	feature
	South African Protected	World Heritage Sites (Core)	Very high sensitivity	feature	Very high sensitivity	feature
Protected Areas	Areas Database (SAPAD) - Q1, 2017, South African National Parks (SANParks) and Provincial	Mountain Catchment Areas (natural)	Very high sensitivity	feature	Very high sensitivity	feature
		Protected Environments (natural)	Very high sensitivity	feature	Very high sensitivity	feature
		Forest Nature Reserve	Very high sensitivity	feature	Very high sensitivity	feature
		Forest Wilderness Area	Very high sensitivity	feature	Very high sensitivity	feature
		Special Nature Reserve	Very high sensitivity	feature	Very high sensitivity	feature
	SAPAD - Q1, 2017 and	10 KM buffer around National Parks	High sensitivity	feature	High sensitivity	feature
Protected Areas Buffers	South African Conservation Areas	5KM buffer around Nature Reserves	High sensitivity	feature	High sensitivity	feature
	Database (SACAD) - Q1,2017	Buffer around World Heritage Sites	High sensitivity	feature	High sensitivity	feature





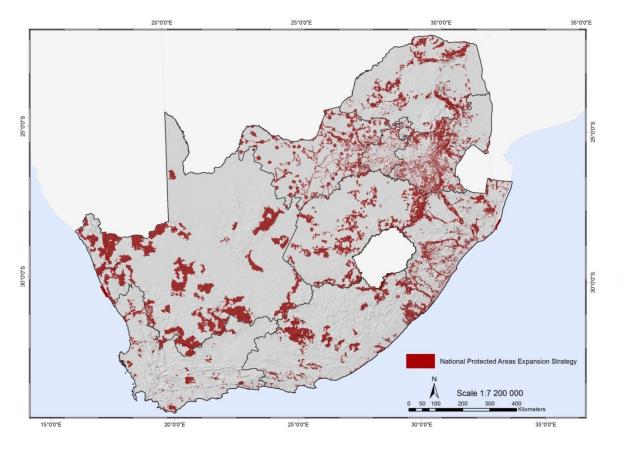


#### Protected Areas – Wind and Solar



#### **NPAES – Wind and Solar**

Features	Source	Attributes	Mapping Sensitivity	_	Mapping Sensitivity	Sensitivity (Solar)
National Protected Areas Expansion Strategy	Department of Environmental Affairs (DEA) and Provincial	Protected areas expansion priority areas	Very high sensitivity	feature	Very high sensitivity	feature



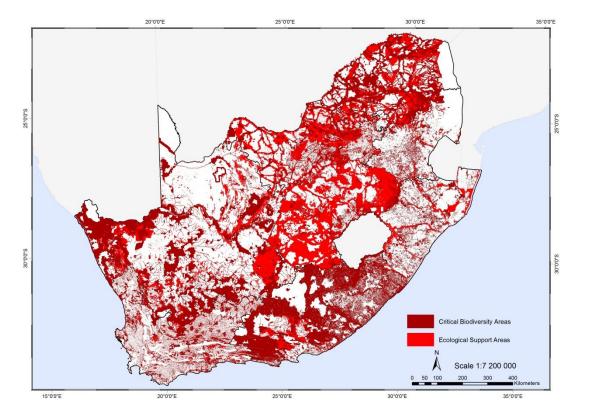






## CBAs and Threatened Ecosystems - Wind

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)
Critical Biodiversity Areas	Provincial	CBA	Very high sensitivity	feature
(CBAs) categories	Provincial	ESA	High sensitivity	feature
	South African National	CR	Very high sensitivity	feature
Threatened Ecosystems	Biodiversity Institute (SANBI)	EN	High sensitivity	feature
	2010	VU	High sensitivity	feature



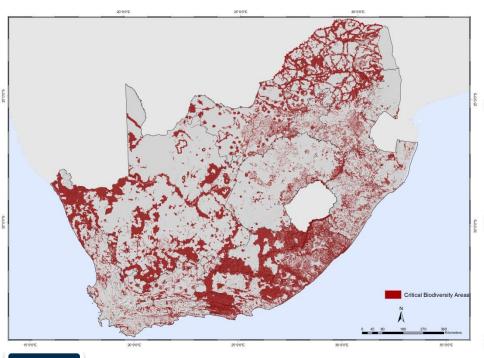


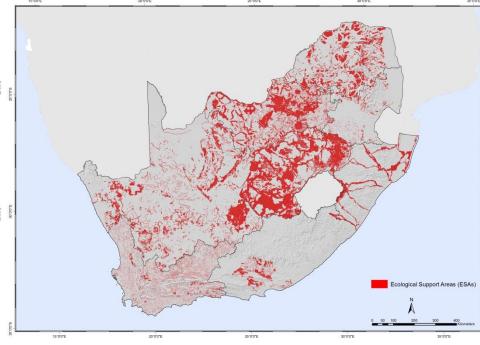




# CBAs and Threatened Ecosystems -Solar

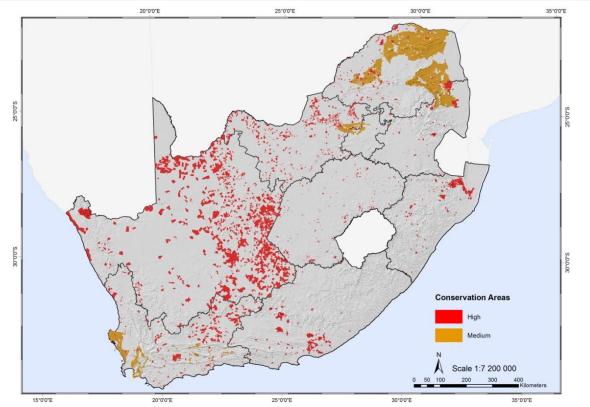
Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Solar)
Critical Biodiversity Areas (CBAs)	Provincial	CBA	Very high sensitivity	feature
categories	Provincial	ESA	Medium sensitivity	feature
	South African National	CR	Very high sensitivity	feature
Threatened Ecosystems	Biodiversity Institute	EN	High sensitivity	feature
	(SANBI) 2010	VU	High sensitivity	feature





#### **Conservation Areas – Wind and Solar**

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)
	SACAD-Q1, 2017 and Provincial	Biosphere reserves (Not protected )	Medium sensitivity	feature
Concornation Areas		Botanical gardens	Medium sensitivity	feature
Conservation Areas		Ramsar Sites (not already protected)	High sensitivity	feature
		Game farms	High sensitivity	feature



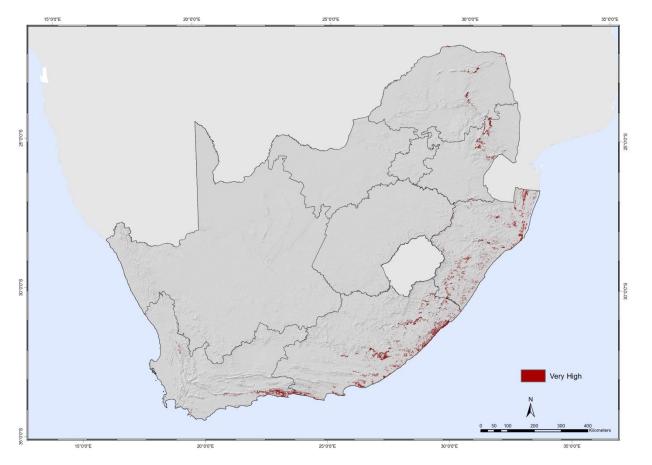






#### Forests – Wind and Solar

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)	Mapping Sensitivity	Sensitivity (Solar)
Forests	Department of Agriculture, Forestry and Fisheries (DAFF)	Forests (National Forest Inventory)	Very high sensitivity	feature	Very high sensitivity	feature



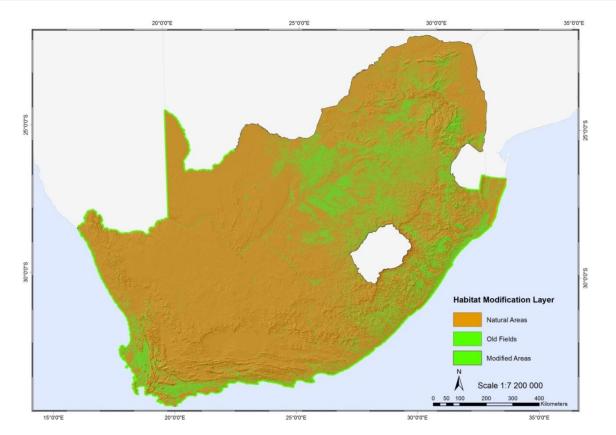






## Habitat Modification – Wind and Solar

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)	Mapping Sensitivity	Sensitivity (Solar)
	SANBI	Natural areas	Medium sensitivity	feature	Medium sensitivity	feature
Habitat Modification layer		Modified areas	Low sensitivity	feature	Low sensitivity	feature
		Old fields	Low sensitivity	feature	Low sensitivity	feature









### **Bats - Wind**

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)
		colony of 1 – 50 Least Concern bats + colony of 1 – 50 Low Risk Conservation Important bats	Very high sensitivity	500 m
	Roost dataset from SABAA (Kate Mc Ewan)	colony of 50 – 500 Least Concern bats + colony of 50 - 500 Low Risk Conservation Important bats + colony of 1 – 50 Med-High Risk Conservation Important bats	Very high sensitivity	1 km
		colony of >500 High Risk Least Concern bats + colony of 50 - 500 Med-High Risk Conservation Important bats + colony of 500 - 2000 Low Risk Conservation Important bats	Very high sensitivity	2.5 km
		colony of 500 - 2000 Med-High Risk Conservation Important bats		10 km
Bats		colony of >2000 Bats of any status or risk level	Very high sensitivity	20 km
		KwaZulu-Cape coastal forest mosaic	Very high sensitivity	feature
	Ecoregions	Maputaland-Pondoland bushland and thickets	Very high sensitivity	feature
		Maputaland coastal forest mosaic	Very high sensitivity	feature
		Zambezian and Mopane woodlands	Very high sensitivity	feature
	REDZs Phase 1 SEA: All_Bats_Absolute_Dolomite and Limestone	Dolomite and Limestone	Very high sensitivity	feature
	REDZs Phase 1 SEA: All_Bats_Absolute_Rivers and Wetlands	Rivers and Wetlands	Very high sensitivity	feature
	REDZs Phase 1 SEA: All_Bats_Absolute_Forest	Forests	Very high sensitivity	feature
	REDZs Phase 1 SEA: All_Bats_Absolute_Cropland	Cropland	Very high sensitivity	feature

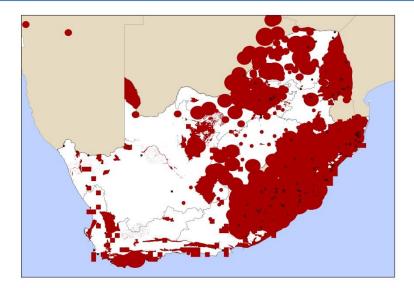
#### Bats - Solar

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Solar)
		colony of 1 – 50 Least Concern bats + colony of 1 – 50 Low Risk Conservation Important bats	N/A	N/A
	Do not detect from CADAA (Kata Ma	colony of 50 – 500 Least Concern bats + colony of 50 - 500 Low Risk Conservation Important bats + colony of 1 – 50 Med-High Risk Conservation Important bats	N/A	N/A
	Roost dataset from SABAA (Kate Mc Ewan)	colony of >500 High Risk Least Concern bats + colony of 50 - 500 Med-High Risk Conservation Important bats + colony of 500 - 2000 Low Risk Conservation Important bats	N/A	N/A
		colony of 500 - 2000 Med-High Risk Conservation Important bats	N/A	N/A
Bats		colony of >2000 Bats of any status or risk level	N/A	N/A
		KwaZulu-Cape coastal forest mosaic	Very high sensitivity	feature
	Ecoregions	Maputaland-Pondoland bushland and thickets	Very high sensitivity	feature
	Kwa Mapi Ecoregions	Maputaland coastal forest mosaic	Very high sensitivity	feature
		Zambezian and Mopane woodlands	Very high sensitivity	feature
	REDZs Phase 1 SEA: All_Bats_Absolute_Dolomite and Limestone	Dolomite and Limestone	N/A	N/A
	REDZs Phase 1 SEA: All_Bats_Absolute_Rivers and Wetlands	Rivers and Wetlands	N/A	N/A
	REDZs Phase 1 SEA: All_Bats_Absolute_Forest	Forests	N/A	N/A
	REDZs Phase 1 SEA: All_Bats_Absolute_Cropland	Cropland	N/A	N/A

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### Birds - Wind

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)
		Priority colonies	Very high sensitivity	feature
		Transkei vulture IBA	Very high sensitivity	feature
		Amur nests	Very high sensitivity	10 km
		Bearded vulture nest	Very high sensitivity	feature
	BirdlifeSA exclusions Phase 1 SEA	FlywayVerloernvlei	Very high sensitivity	feature
	biruillesA exclusions Phase 1 SEA	IBA exclusion	Very high sensitivity	feature
		Lesser Kestel	Very high sensitivity	10 km
Birds		Protected Areas in IBA	Very high sensitivity	feature
		Potberg Cape Vulture	Very high sensitivity	feature
		Saldanha Flyway	Very high sensitivity	feature
		VULPRO cape vulture colonies	Very high sensitivity	50 km
	VULPRO	VULPRO cape vulture roosts	Very high sensitivity	40 km
		VULPRO cape vulture restaurants	Very high sensitivity	20 km
	NMMU	NMMU cape vulture roost sites	Very high sensitivity	40 km
	KZN wildlife	Bearded vulture collision risk model	Very high sensitivity	feature



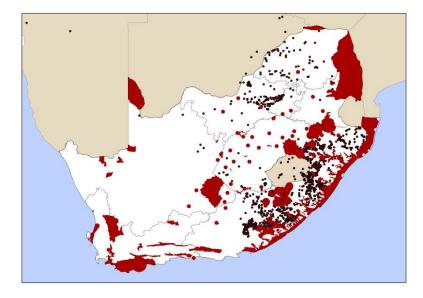






## Birds - Solar

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Solar)
		Priority colonies	High sensitivity	feature
		Transkei vulture IBA	High sensitivity	feature
		Amur nests	High sensitivity	feature
		Bearded vulture nest	High sensitivity	feature
	BirdlifeSA exclusions Phase 1 SEA	FlywayVerloernvlei	High sensitivity	feature
	biruillesa exclusions Phase 1 SEA	IBA exclusion	High sensitivity	feature
		Lesser Kestel	High sensitivity	feature
Birds		Protected Areas in IBA	High sensitivity	feature
		Potberg Cape Vulture	High sensitivity	feature
		Saldanha Flyway	High sensitivity	feature
		VULPRO cape vulture colonies	High sensitivity	feature
	VULPRO	VULPRO cape vulture roosts	High sensitivity	feature
		VULPRO cape vulture restaurants	High sensitivity	feature
	NMMU	NMMU cape vulture roost sites	High sensitivity	feature
	KZN wildlife	Bearded vulture collision risk model	High sensitivity	feature









# Species of Special Concern –Wind and Solar

Features	Source	Attribute	Mapping Sensitivity	Sensitivity (Wind)	Mapping Sensitivity	Sensitivity (Solar)
		Critical Habitat for highly restricted Species Global Extent of Occurrence < 10 km2	Very high sensitivity	feature	Very high sensitivity	feature
Species of conservation	Endangered Wildlife Trust (EWT), SANBI and BirdLife	Confirmed occurences of rare and threatened species	High sensitivity	feature	High sensitivity	feature
concern	South Africa	Suitable unsurveyed habitat for threatened, rare and data deficient species.	Medium sensitivity	feature	Medium sensitivity	feature
		No known or expected threatened or rare species.	Low sensitivity	feature	Low sensitivity	feature

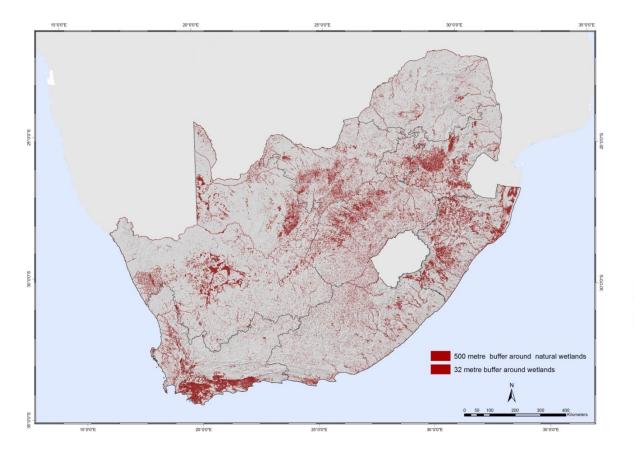






### Freshwater Features – Wind and Solar

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)	Mapping Sensitivity	Sensitivity (Solar)
Freshwater Feature buffers		500m buffer around Wetlands	Very high sensitivity	500m	Very high sensitivity	500m
	NFEPA	32 m buffer around Rivers	Very high sensitivity	32m	Very high sensitivity	32m



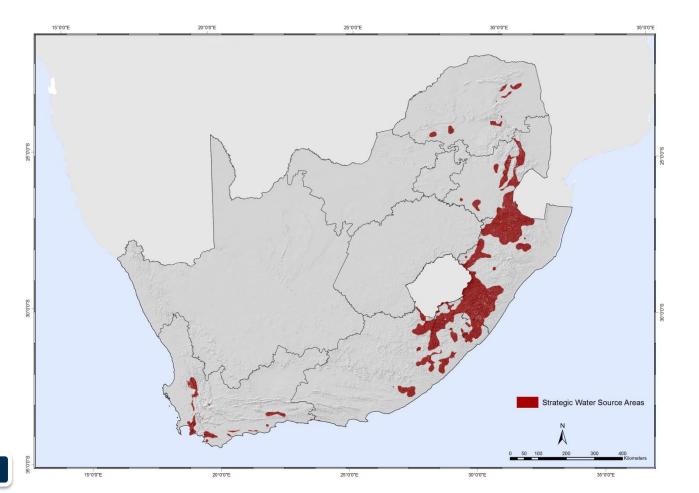






# Strategic Water Source Areas – Wind ad Solar

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)	Mapping Sensitivity	Sensitivity (Solar)
Strategic Water Source Areas	Council for Scientific and	SWSAs (Natural areas )	Vany high consitivity	feature	Very high	feature
(SWSAs)	Industrial Research (CSIR)	SWSAS (Natural areas )	Very high sensitivity	reature	sensitivity	Teature



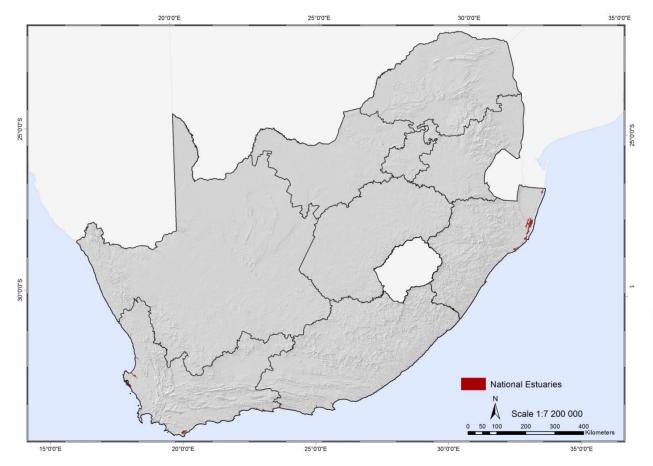






#### Estuaries – Wind and Solar

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)	Mapping Sensitivity	Sensitivity (Solar)
Estuaries	National Biodiversity Assessment (NBA) 2011	All estuaries	Very high sensitivity	feature	Very high sensitivity	feature



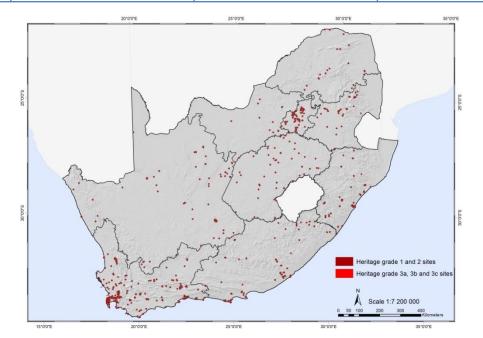






# Heritage and UNESCO Tentative Sites – Wind and Solar

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)	Mapping Sensitivity	Sensitivity (Solar)
UNESCO tentative sites	UNESCO website / SAHRA	UNESCO tentative sites	High sensitivity	feature	High sensitivity	feature
		(3rade   Sites   Very high sensitivity	feature (1km		feature (1km	
			- 7 6	buffer - EGI)	sensitivity	buffer - EGI)
		Grade II sites	Very high sensitivity	1km	Very high	1km
		Grade it sites	very mgn sensitivity	211111	sensitivity	211111
Heritage	Electricity Grid Infrastructure	Grade Illa sites	High sensitivity	150m	High	150m
Heritage	(EGI) dataset	Grade IIIa Sites	riigii serisitivity	130111	sensitivity	130111
		Grade IIIb sites	Lligh consitivity	F0m	High	F0m
		Grade IIID Sites	High sensitivity	50m	sensitivity	50m
		Crada IIIa sitas	High consitivity	2000	High	2000
		Grade IIIc sites	High sensitivity	30m	sensitivity	30m





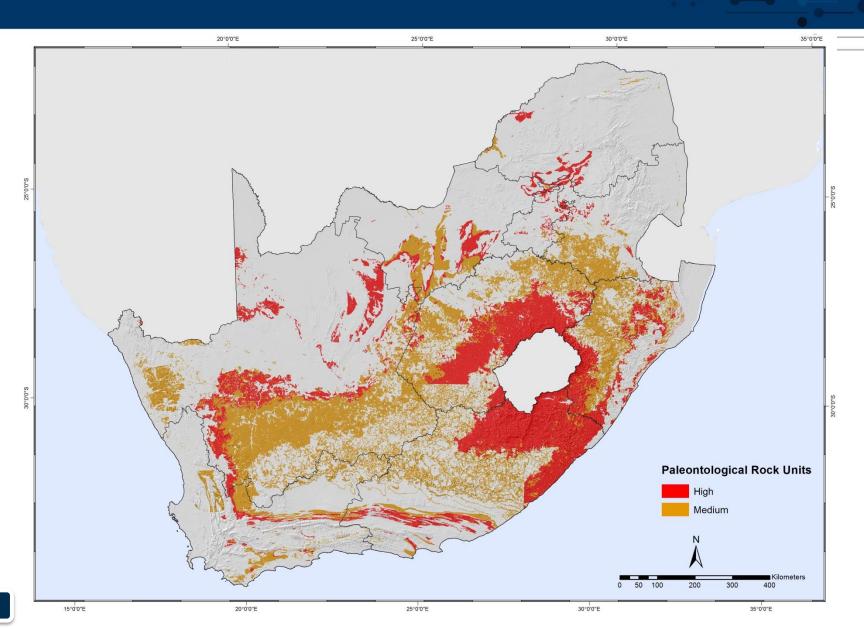




## Palaeontology – Wind and Solar

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)	Mapping Sensitivity	Sensitivity (Solar)
		ADELAIDE, ASBESTOS HILLS, BOEGOEBERG DAM, BOTHAVILLE, BRULSAND, CAMPBELL RAND, CLARENS, DRAKENSBERG, DWYKA, ECCA, ELLIOT, ENON, GHAAP, KAMEELDOORNS, KOEGAS, KUIBIS, MATSAP,MOLTENO, PRINCE ALBERT, RIETGAT, SCHMIDTSDRIF, SCHWARZRAND, STALHOEK, SULTANAOORD, TARKASTAD, VRYBURG, WHITEHILL, WITTEBERG	High sensitivity	feature	High sensitivity	feature
Paleontological heritage resources	CSIR	ACHAB, ALLANRIDGE, BIDOUW, BREDASDORP, CERES, CONCORDIA GRANITE, DWYKA, FORT BROWN, GESELSKAPBANK, GLADKOP, GRAHAMSTOWN, HARTEBEEST PAN GRANITE, HOOGOOR, KALAHARI, KAMIESKROON GNEISS, KAROO DOLERITE, KHURISBERG, KONKYP GNEISS, KOOKFONTEIN, KORRIDOR, MESKLIP GNEISS, MODDERFONTEIN GRANITE/GNEISS, NAAB, NABABEEP GNEISS, NAKANAS, NARDOUW, NUWEFONTEIN GRANITE, RIETBERG GRANITE, SKOORSTEENBERG, STINKFONTEIN, STYGER KRAAL SYENITE, TABLE MOUNTAIN, TIERBERG, VOLKSRUST, WATERFORD	Medium sensitivity		Medium sensitivity	feature

## Palaeontology – Wind and Solar



### Visual - Wind

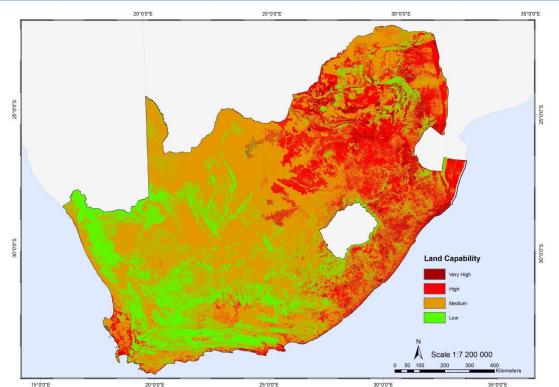
Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)
	DEM or NGI	Mountain Ranges	Very high sensitivity	feature
	DEM or NGI	Slopes > 25% or 1:4	Very high sensitivity	feature
	NFEPA 2011	Major River	High sensitivity	32-500 m
	SANBI dataset	Coastal zonos	High sensitivity	1-2 km
	SANDI dataset	Coastal zones	Medium sensitivity	2-4 km
	SAPAD - Q1, 2017 and South		Very high sensitivity	0-5 km
	African Conservation Areas	Protected Areas, Private reserves	High sensitivity	5-10 km
	Database (SACAD) -Q1,2017	and game farm	Medium sensitivity	10-20 km
	Database (SACAD) -Q1,2017	Mountain Ranges   Very high sensitivity   feature		
	DEA dataset	SALT	Very high sensitivity	0-25 km
	DLA dataset	JALI	Medium sensitivity	25-75 km
		Hearitage feature: Grade L sites	Very high sensitivity	0-1 km
		Treatitage reature. Grade i sites	Medium sensitivity	1-1.5 km
Visual		Hearitage feature: Grade II sites	Very high sensitivity	0-1 km
Visuai		Treatitage reacure. Grade it sites	Medium sensitivity	1-1.5 km
	SANBI dataset	Hearitage feature: Grade IIIa sites	<u> </u>	0 -150 m
		Treatitage reacute. Grade illa sites		150 m - 1.5 km
		Hearitage feature: Grade IIIh sites	Low sensitivity >20 km Very high sensitivity 0-25 km Medium sensitivity 25-75 km Very high sensitivity 0-1 km Medium sensitivity 1-1.5 km Very high sensitivity 0-1 km Medium sensitivity 1-1.5 km Very high sensitivity 0-150 m Medium sensitivity 150 m - 1.5 km Very high sensitivity 0-50m Medium sensitivity 0-50m Medium sensitivity 0-30m Medium sensitivity 0-30m Medium sensitivity 0-30m Medium sensitivity 0-2 km Very high sensitivity 0-2 km High sensitivity 2-4 km	
		Treatitage reacure. Grade IIID sites	Medium sensitivity	50 m - 1.5 km
		Haritaga faatura: Grada IIIc sitas	Very high sensitivity	0-30m
		Heritage leature. Grade ilic sites	Medium sensitivity	30 m - 1.5 km
		Town villages and settlements	Very high sensitivity	0-2 km
	AfriGIS Towns – 2015	_	High sensitivity	2-4 km
		outside large di bail aleas	Medium sensitivity	4-6 km
			Very high sensitivity	
	SANBI dataset	National roads and scenic routes	High sensitivity	1-3 km
			Medium sensitivity	3-5 km
	CSIR	Western Cape Routes	Very high sensitivity	1km

### Visual - Solar

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Solar)
	DEM or NGI	Mountain Ranges	very high sensitivity	feature
	DEM or NGI	Slopes > 25% or 1:4	very high sensitivity	feature
	NFEPA 2011	Major River	High sensitivity	32-500 m
	SANBI dataset	Coastal zones	Medium sensitivity	1-4 km
	SAPAD - Q1, 2017 and South African		Very high sensitivity	0-2.5 km
	Conservation Areas Database (SACAD) -	Protected Areas, Private reserves and	High sensitivity	2.5-5 km
	Q1,2017	game farm	Medium sensitivity	5-10 km
	Q1,2017		Low sensitivity	>10 km
	DEA dataset	SALT	Very high sensitivity	0-25 km
	DEA dataset	SALI	Medium sensitivity	25-75 km
		Hearitage feature: Grade Lsites Very high sensit		0-1 km
		Healitage leature. Grade I sites	Medium sensitivity	1-1.5 km
		Hearitage feature: Grade II sites Very high sensiti		0-1 km
Visual		riearitage reature. Grade it sites	Medium sensitivity	1-1.5 km
	SANBI dataset	Hearitage feature: Grade Illa sites	Very high sensitivity	0 -150 m
		riearitage reature. Grade illa sites	Medium sensitivity	150 m - 1.5 km
		Hearitage feature: Grade IIIb sites	Very high sensitivity	0-50m
		ricaritage reactire. Grade iiib sites	Medium sensitivity	50 m - 1.5 km
		Hearitage feature: Grade IIIc sites	Very high sensitivity	0-30m
		ricultage leature. Grade life sites	Medium sensitivity	30 m - 1.5 km
		Town, villages and settlements outside	Very high sensitivity	0-500 m
	AfriGIS Towns – 2015	large urban areas	High sensitivity	500 m - 1 km
		large urbair areas	Medium sensitivity	1 km-2 km
			Very high sensitivity	0-500m
	SANBI dataset	National roads and scenic routes	High sensitivity	500m-1km
			Medium sensitivity	1 km-2 km
	CSIR	Western Cape Routes	Very high sensitivity	1km

## Land Capability – Wind and Solar

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)	Mapping Sensitivity	Sensitivity (Solar)
		Land capability features with values ranging from 11-15	Very high sensitivity	feature	Very high sensitivity	feature
Land Capability	DAFF	Land capability features with values ranging from 9-10	High sensitivity	feature	High sensitivity	feature
		Land capability features class 6 to 8	Medium sensitivity	feature	Medium sensitivity	feature
		Land capability features class 1 to 5	Low sensitivity	feature	Low sensitivity	feature



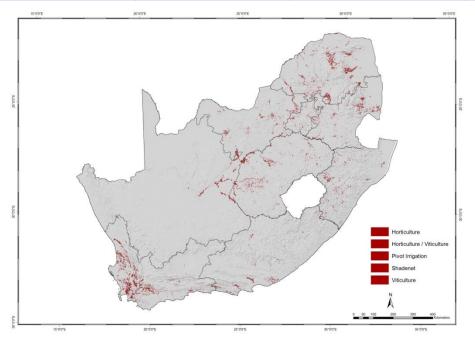






## Field Crop Boundaries – Wind and Solar

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)	Mapping Sensitivity	Sensitivity (Solar)
		Irrigated Areas	Very high sensitivity	feature	Very high sensitivity	feature
	December 2015 release of	Shaedenet	Very high sensitivity	feature	Very high sensitivity	feature
Field crop boundaries	the Field crop boundary data set or any newer	Viticulture	Very high sensitivity	feature	Very high sensitivity	feature
	released version thereafter	Horticulture	Very high sensitivity	feature	Very high sensitivity	feature
		Remaining cultivated areas	High sensitivity	feature	High sensitivity	feature









# Demarcated High Value Agricultural Land – Wind and Solar

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)	Mapping Sensitivity	Sensitivity (Solar)
	DAFF - New PDALB requires the	areas with a priority rating of A & B	Very high sensitivity	feature	Very high sensitivity	feature
Demarcated high value agricultural	demarcation of high value agricultural areas which is a combination of land capability; crop suitability, agricultural land uses etc on a priority rating		High sensitivity	feature	High sensitivity	feature







## Mining – Wind and Solar

Feature	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)	Mapping Sensitivity	Sensitivity (Solar)	
		Abandoned mines	Low sensitivity	feature	Low sensitivity	feature	
Mining	CC5	Active mines	Very high sensitivity	feature	Very high sensitivity	feature	
iviiriirig	Mining CGS	Prospecting rights	Very high sensitivity	feature	Very high sensitivity	feature	
			Very high sensitivity	feature	Very high sensitivity	feature	

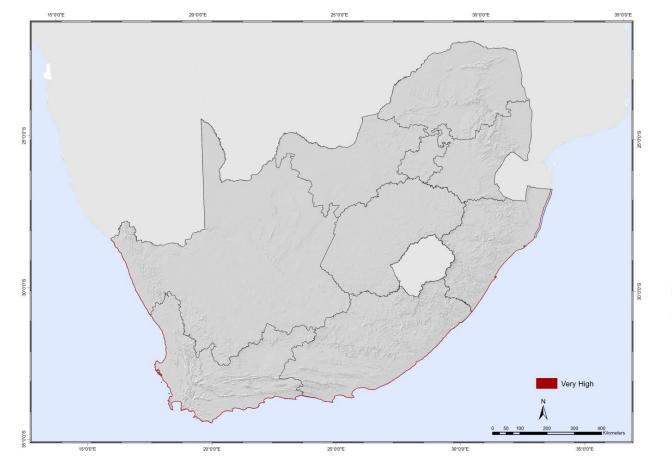






#### **Coastline – Wind and Solar**

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)	Mapping Sensitivity	Sensitivity (Solar)
	Department of Rural					
Coastline	Development and Land	Buffered coastline (1km)	Very high sensitivity	1km	Very high sensitivity	1km
	Reform ( DRDLR)					



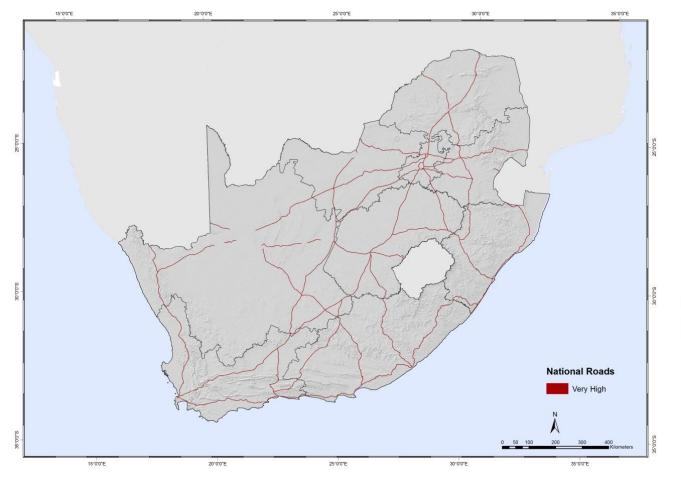






## Major Roads – Wind and Solar

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)	Mapping Sensitivity	Sensitivity (Solar)
Major roads	SANBI dataset	Major Roads	Very high sensitivity	1km	Very high sensitivity	1km





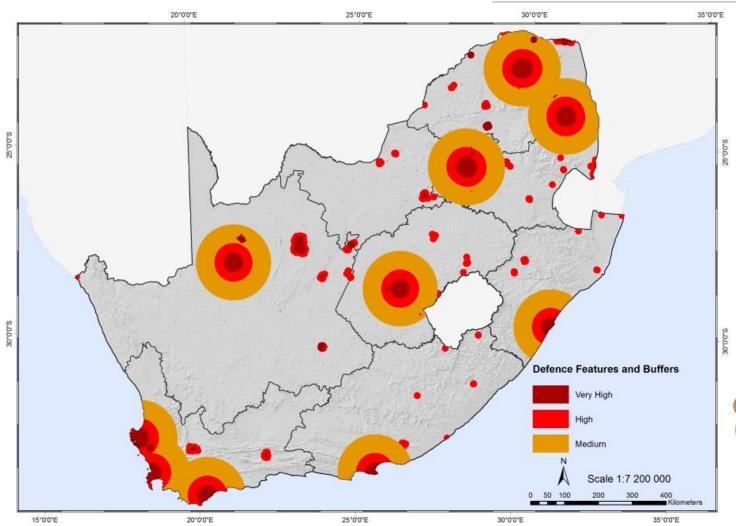




#### **Defence - Wind**

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)
		Forward Airfield	Very high sensitivity	10 km
		Torward Airrield		
			Very high sensitivity	28 km
		Air Force Bases	High sensitivity	56 km
			Medium sensitivity	111 km
		High Sites	Very high sensitivity	1km
		Military Bases	Very high sensitivity	1km
		Willitary Bases	High sensitivity	10 km
		Operational Military Bases	Very high sensitivity	1km
		Operational Willitary Bases	High sensitivity	10 km
Defence	EGI dataset	Shooting Ranges	Very high sensitivity	1km
Deterice	Lordataset	Shooting Kanges	High sensitivity	10 km
		Military Training Areas	Very high sensitivity	1km
		Willitary Training Areas	High sensitivity	10 km
		Ammunition Depots	Very high sensitivity	10km
			Very high sensitivity	28km
		Bombing Ranges	High sensitivity	28 - 56km
			Medium sensitivity	56-111km
		Border Posts	Very high sensitivity	1km
		All Other DoD features (Including Naval Bases, Housing, Offices ect)	feature	feature

#### **Defence - Wind**





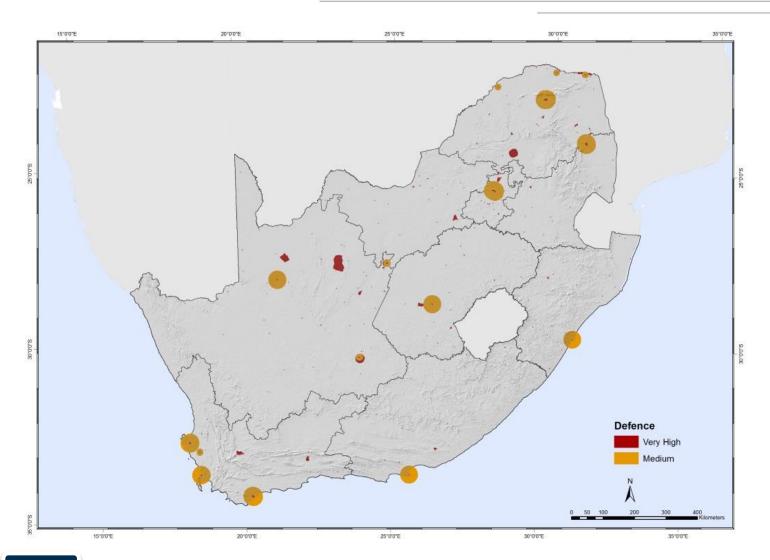




## **Defence - Solar**

Features	Source	Source Attributes I		Sensitivity (Solar)
		Forward Airfield	Very high sensitivity	1 km
		Foi ward Airrieid	Medium sensitivity	10 km
			Very high sensitivity	1 km
		Air Force Bases	Medium sensitivity	28 km
		High Sites	Very high sensitivity	1 km
		Military Bases	Very high sensitivity	1 km
		Operational Military Bases	Very high sensitivity	1 km
Defence	EGI dataset	Shooting Ranges	Very high sensitivity	1 km
		Military Training Areas	Very high sensitivity	1 km
		Ammunition Depots	Very high sensitivity	10 km
			Very high sensitivity	28km
		Bombing Ranges	High sensitivity	28 - 56km
			Medium sensitivity	56-111km
		Border Posts	Very high sensitivity	1km
		All Other DoD features		
		(Including Naval Bases,	feature	feature
		Housing, Offices ect)		

#### **Defence - Solar**



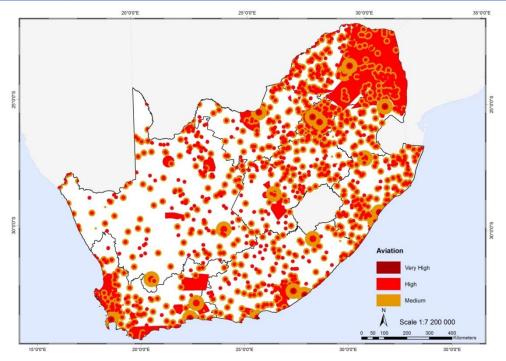






#### **Civil Aviation - Wind**

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)
			Very high sensitivity	8 km
		Major Airports	High sensitivity	8-15 km
Airports (major, landing strips, small	REDZs 1 SEA dataset and EGI SEA	Medium sensitivity		15-35 km
aerodromes)	dataset for additional features	Landing strips	High sensitivity	8 km
		other civil aviation aerodromes High sensitivity		8 km
		(small aerodromes)	Medium sensitivity	8-15 km
		Civil Aviation radars	Very high sensitivity	0-15 km
		Civii Aviation radars	Medium sensitivity	15-35 km
Civil Aviation	REDZs 1 SEA dataset	Air traffic control and navigation sites	Medium sensitivity	0-5 km
		Danger and restricted airspace	High sensitivity	feature



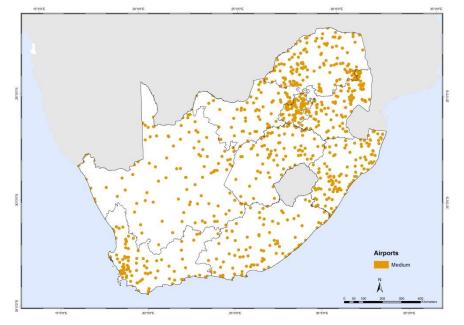






## Civil Aviation - Solar

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Solar)
		Major Airports	Medium sensitivity	8 km
Airports (major, landing strips, small	REDZs 1 SEA dataset and EGI SEA	Landing strips	Medium Sensitivity	8-15km
aerodromes)	dataset for additional features	other civil aviation aerodromes (small aerodromes)	Medium sensitivity	8 km
		Civil Aviation radars	N/A	N/A
		Civil Aviation radars	N/A	N/A
Civil Aviation	REDZs 1 SEA dataset	Air traffic control and navigation sites	•	N/A
		Danger and restricted airspace	N/A	N/A



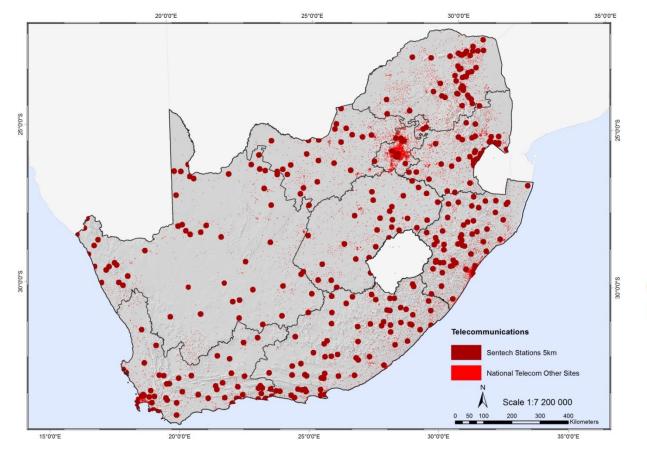






#### **Telecommunications Towers - Wind**

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)
Telecommunication Towers	REDZs 1 SEA dataset	Sentech High Power Terrestrial Broadcasting Facilities	Very high sensitivity	5km
		Other Communication Facilities	High sensitivity	(Wind)



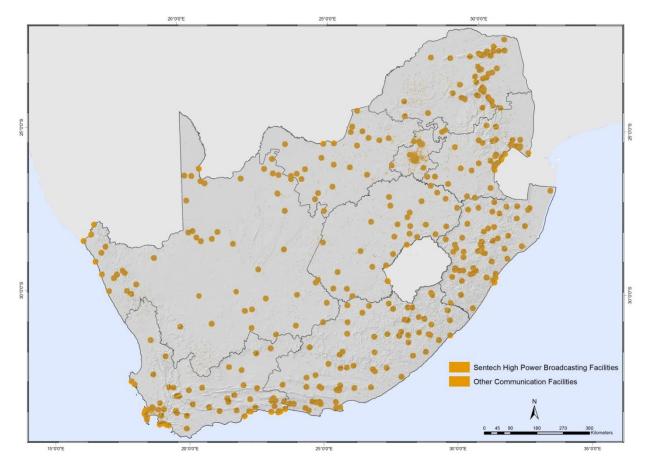






#### **Telecommunications Towers - Solar**

Features	Source	Attributes Mapping Sensitivity		Sensitivity (Solar)
Telecommunication Towers	REDZs 1 SEA dataset	Sentech High Power Terrestrial Broadcasting Facilities	Medium sensitivity	5km
		Other Communication Facilities	Medium sensitivity	1km



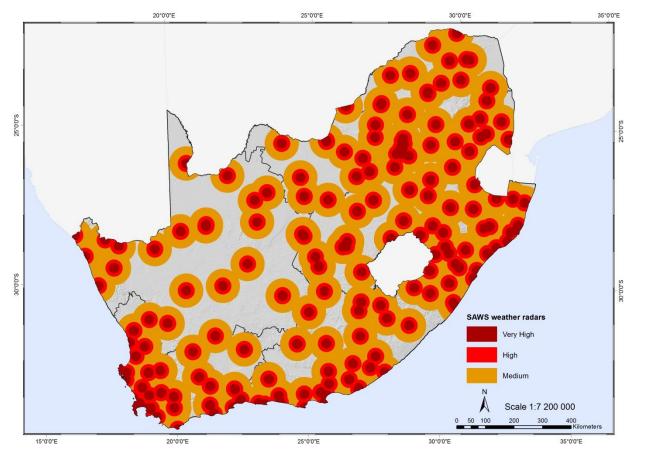






### Weather Radars – Wind only

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)
Weather Radars			Very high sensitivity	0-18 km
	REDZs 1 SEA dataset	Weather Radars	High sensitivity	18-30 km
	REDZS I SEA udidset		Medium sensitivity	30-60
			Low sensitivity	more than 60 km



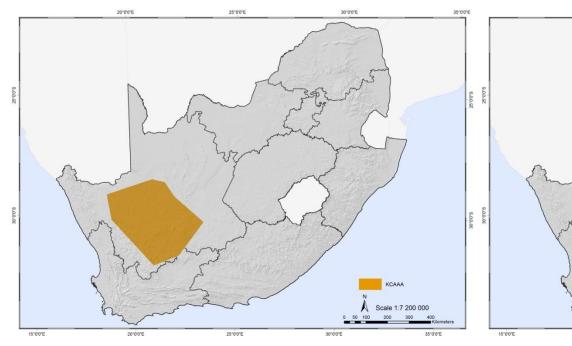


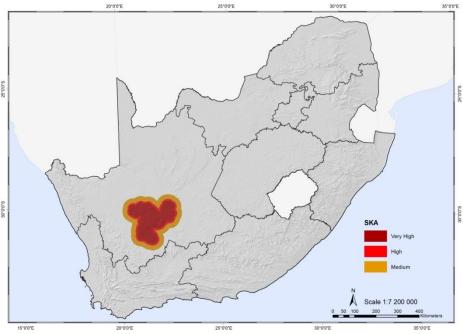




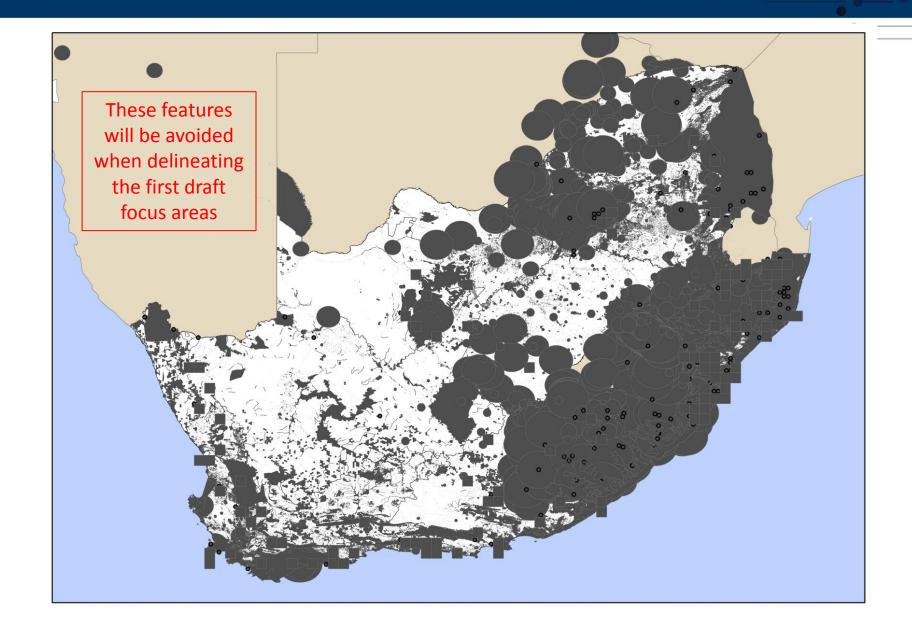
## SKA and KCAAA – Wind and Solar

Features	Source	Attributes	Mapping Sensitivity	Sensitivity (Wind)	Mapping Sensitivity	Sensitivity (Solar)
Karoo Central Astronomy Advantage Area (KCAAA)	CSIR	Karoo Central Astronomy Advantage Area	Medium sensitivity	feature	Medium sensitivity	feature
Square Kilometre Array (SKA)	SKA SEA	Square Kilometre Array (SKA)	Very high sensitivity	feature	Very high sensitivity	feature
SEA study area		study area	High sensitivity	0-20 km	High sensitivity	0-20 km





#### **Features of Critical Importance**



# Thank you for your participation to this second ERG/PSC meeting on 25<sup>th</sup> July 2017

Please send your inputs to the SEA project manager:

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