

Appendix D – Biodiversity/Sensitivity Maps



Legend

<ul style="list-style-type: none"> Farm Boundaries 1km Buffer Structures Within Buffer Building Homestead Electrical Transmission lines Barrier Structures within Buffer Anti Erosion Wall Avenue Dam Wall Fence 	<ul style="list-style-type: none"> Roads Secondary Road Artificial Landforms Excavation Historical Sites Contours Water Points Water Reservoir Wind Pump On-site Boreholes Irrigation 500m Buffer 	<ul style="list-style-type: none"> Site Elements Homestead Sensitivity Elements Bird Flappers required Pivot size reduced Layout Grid Connection Options Preferred Alternative Servitude alternative Pylons 	<ul style="list-style-type: none"> Development Footprint Terrestrial CBA CBA1 Degraded ESA2 Other Land Cover 2018 commercial annual crops pivot irrigated commercial annual crops rain-fed / dryland contiguous & dense plantation forest dry pans 	<ul style="list-style-type: none"> fallow land & old fields (bush) fallow land & old fields (grass) fallow land & old fields (low shrub) herbaceous wetlands (currently mapped) herbaceous wetlands (previously mapped) low shrubland (other) natural grassland open & sparse plantation forest village scattered (bare & low veg/ grass combo)
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Notes

Data sources:
 Dept of Rural Development and Land Reform,
 Eskom holdings,
 Sensitivity aspects derived from Specialist reports for application
 Development and Layout information supplied by client

The following attributes do not occur on site or within 1km -
 Ridgelines, High potential Agricultural land, Tourism facilities, Rivers

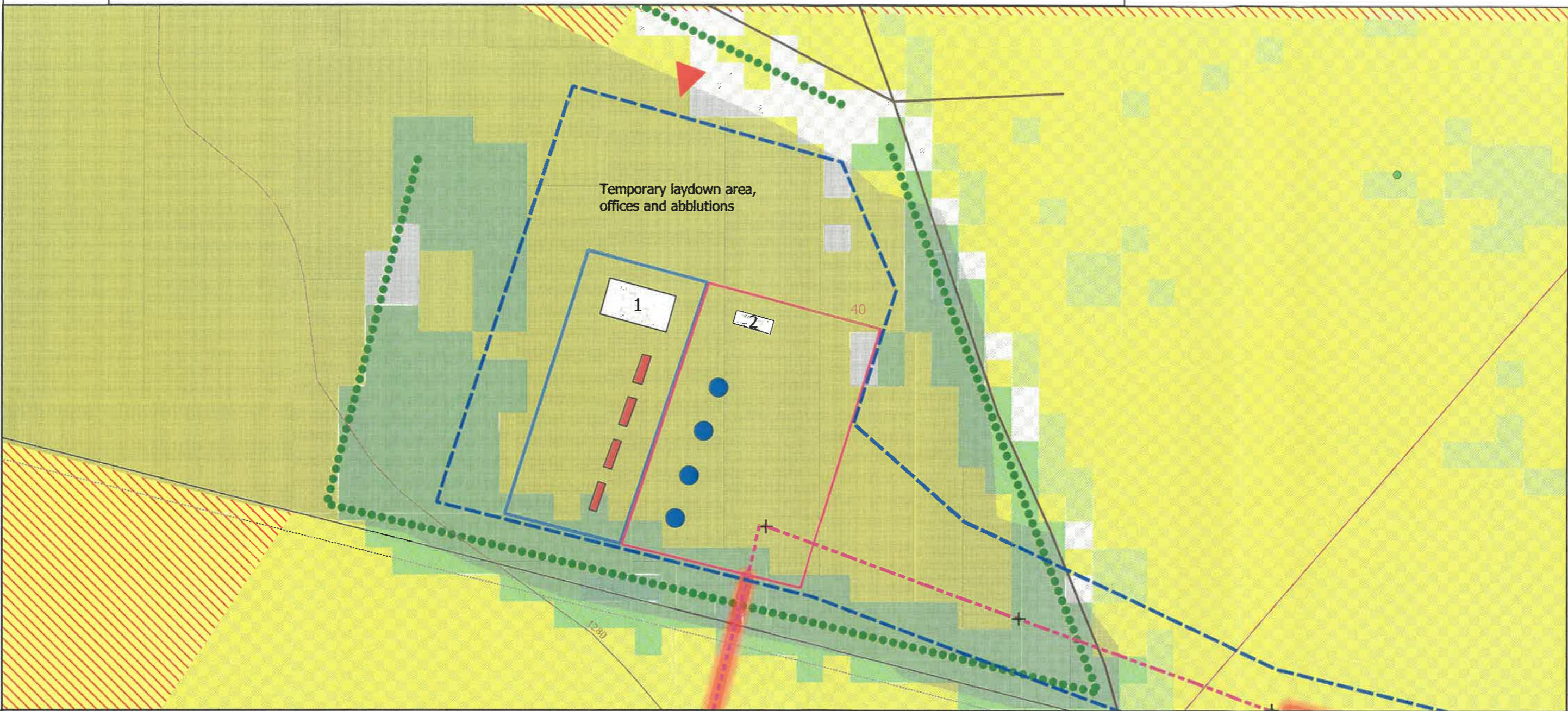
All Natural Grassland is used for grazing or game farming

* No pans as per Land Cover 2018

1:14500

DATUM "World Geodetic System 1984"

Compiled by
 SC Lategan for EnviroAfrica
 November 2021



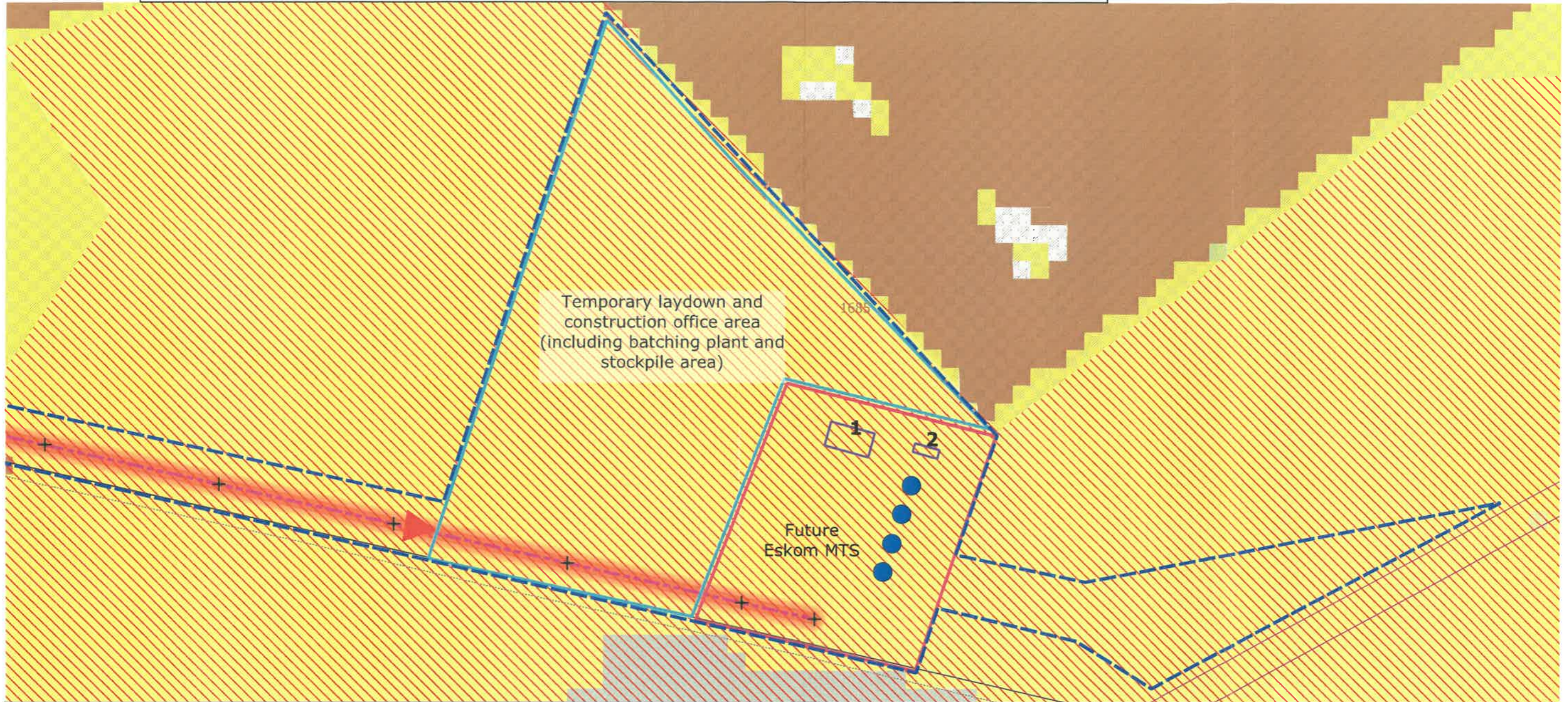
Legend	<ul style="list-style-type: none"> Farm Boundaries 1km Buffer Electrical Transmission lines 	<ul style="list-style-type: none"> Contours Water Points ● Wind Pump 	<ul style="list-style-type: none"> + Pylons Grid Connection Options Preferred Alternative 	<ul style="list-style-type: none"> Land Cover 2018 contiguous & dense plantation forest low shrubland (other) natural grassland open & sparse plantation forest 	<ul style="list-style-type: none"> Substation Components ESKOM 85MW Transformers Interconnection Cabin IPP
	<ul style="list-style-type: none"> Barrier Structures within Buffer ●●● Avenue Fence Roads Secondary Road 	<ul style="list-style-type: none"> Sensitivity Elements Bird Flappers required Layout Development Footprint 	<ul style="list-style-type: none"> Terrestrial CBA CBA1 Degraded ESA2 	<ul style="list-style-type: none"> Substation Designation Eskom portion of substation IPP portion of substation 	<ul style="list-style-type: none"> Buildings 2 ESKOM Control Room 1 IPP Building
				<ul style="list-style-type: none"> ▶ Approximate position of access road from Visserspan PV facility 	

Notes
Data sources: Dept of Rural Development and Land Reform, Eskom holdings, Specialist reports for application
The following attributes do not occur on site or within 1km - Ridgelines, High potential Agricultural land, Tourism facilities, Rivers
All Natural Grassland is used for grazing or game farming
 1:2000
DATUM "World Geodetic System 1984"
Compiled by SC Lategan for EnviroAfrica November 2021

Description

On-site sensitivities for the potential future Eskom Main Transformer Substation (MTS)/Kinderdam Substation, near Dealesville, Free State

SENSITIVITY MAP (Kinderdam Substation)



Legend

- | | | | | |
|--|---|---|---|--|
| <ul style="list-style-type: none"> Farm Boundaries 1km Buffer Electrical Transmission lines Barrier Structures within Buffer Fence | <p>Sensitivity Elements</p> <ul style="list-style-type: none"> Bird Flappers required <p>Terrestrial CBA</p> <ul style="list-style-type: none"> CBA1 ESA2 | <p>Land Cover 2018</p> <ul style="list-style-type: none"> commercial annual crops rain-fed / dryland dry pans fallow land & old fields (grass) low shrubland (other) natural grassland | <p>Layout</p> <ul style="list-style-type: none"> Development Footprint Pylons <p>Grid Connection Options</p> <ul style="list-style-type: none"> Preferred <p>Substation Elements</p> <ul style="list-style-type: none"> Transformers | <ul style="list-style-type: none"> Temporary Laydown, office Substation <p>Buildings</p> <ul style="list-style-type: none"> Control Room Substation Building <p> Access road follows existing farm fence road on the southern boundary of the servitude footprint</p> |
|--|---|---|---|--|

Notes

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 Eskom holdings,
 Sensitivity aspects derived from Specialist reports for application
 Development and Layout information supplied by client

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All Natural Grassland is used for grazing or game farming

1:3000



DATUM "World Geodetic System 1984"

Compiled by
 SC Lategan for EnviroAfrica
 November 2021

Description

Visserspan Solar PV Grid Connection map of critical biodiversity areas (CBAs) and ecological support areas (ESAs) based on 2015 Free State biodiversity Plan.

Vegetation Map Indicating:
total development footprint outlined in red;
Visserspan substation (location of orange dot);
Transmission corridor route (location of green diamond is approximate central point);
Kinderdam MTS (location of yellow dot - adjacent to laydown and stockpile area).

Legend

- Local municipalities 2011
- Free State Biodiversity Plan
 - Protected
 - CBM1
 - CBM2
 - ESA1
 - ESA2
 - Other
 - Degraded
- Farm boundaries
- Citations

1: 36 112



1,8 0 0,92 1,8 Kilometers

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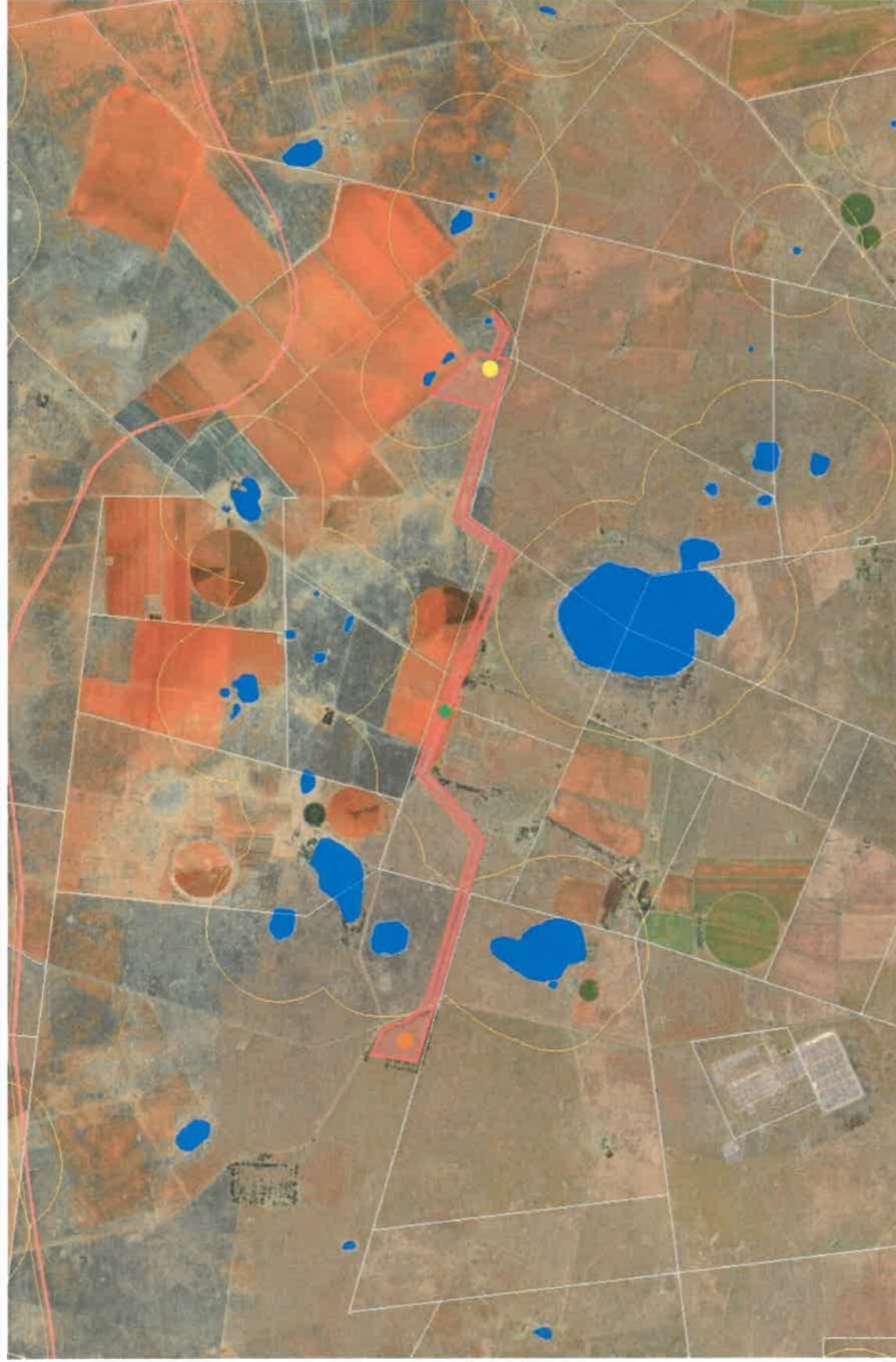


Description
 Visserspan Solar PV Grid Connection map showing National Freshwater Ecosystem Priority Area (NFEPA) for rivers and wetlands indicating total development footprint outlined in red; Visserspan substation (location of orange dot); Transmission corridor route (location of green diamond is approximate central point); Kinderdam MTS (location of yellow dot - to the east of laydown and stockpile area).

Legend

- South Africa town points
- South African parent farm cadaster
- Rivers (NFEPA)
- 1
- 5
- 10
- Wetland clusters (NFEPA)
- National wetlands map 4 (NFEPA)
- Water Management Area (WMA) boundaries
- Sub Water Management Area (Sub-WMA) boundaries
- Fish points
- Fish sanctuary, GREEN fish
- Fish sanctuary, other fish
- NFEPA sub-quat. catchment river FEPAs
- River FEPAs and associated sub-quaternary catchment
- Fish Support Area and associated sub-quaternary catc
- Phase 2 FEPAs and associated sub-quaternary catchm
- Upstream management area

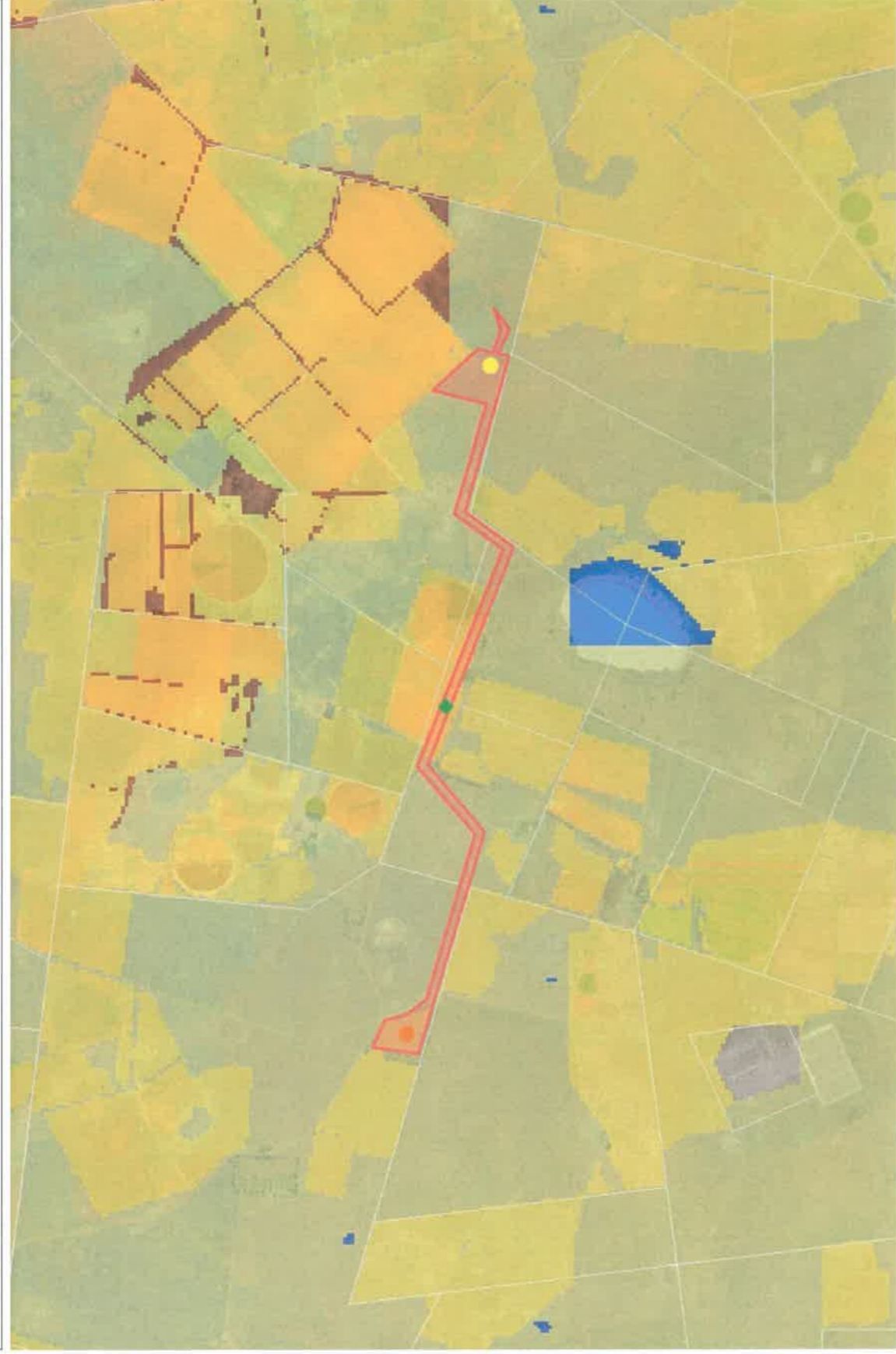
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1.8  0 0.92 1.8 Kilometers
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Description
 Visserspan Solar PV Grid Connection map showing National Landcover indicating:
 total development footprint outlined in red;
 Visserspan substation (location of orange dot);
 Transmission corridor route (location of green diamond is approximate central point);
 Kinderdam MTS (location of yellow dot - to the east of laydown and stockpile area).

Legend

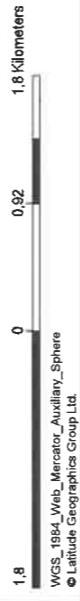
- South Africa town points
- South African parent farm cadaster
- National Landcover
 - Cultivation
 - Degraded
 - Mines
 - Natural
 - Plantations
 - Urban Built-up
 - Waterbodies

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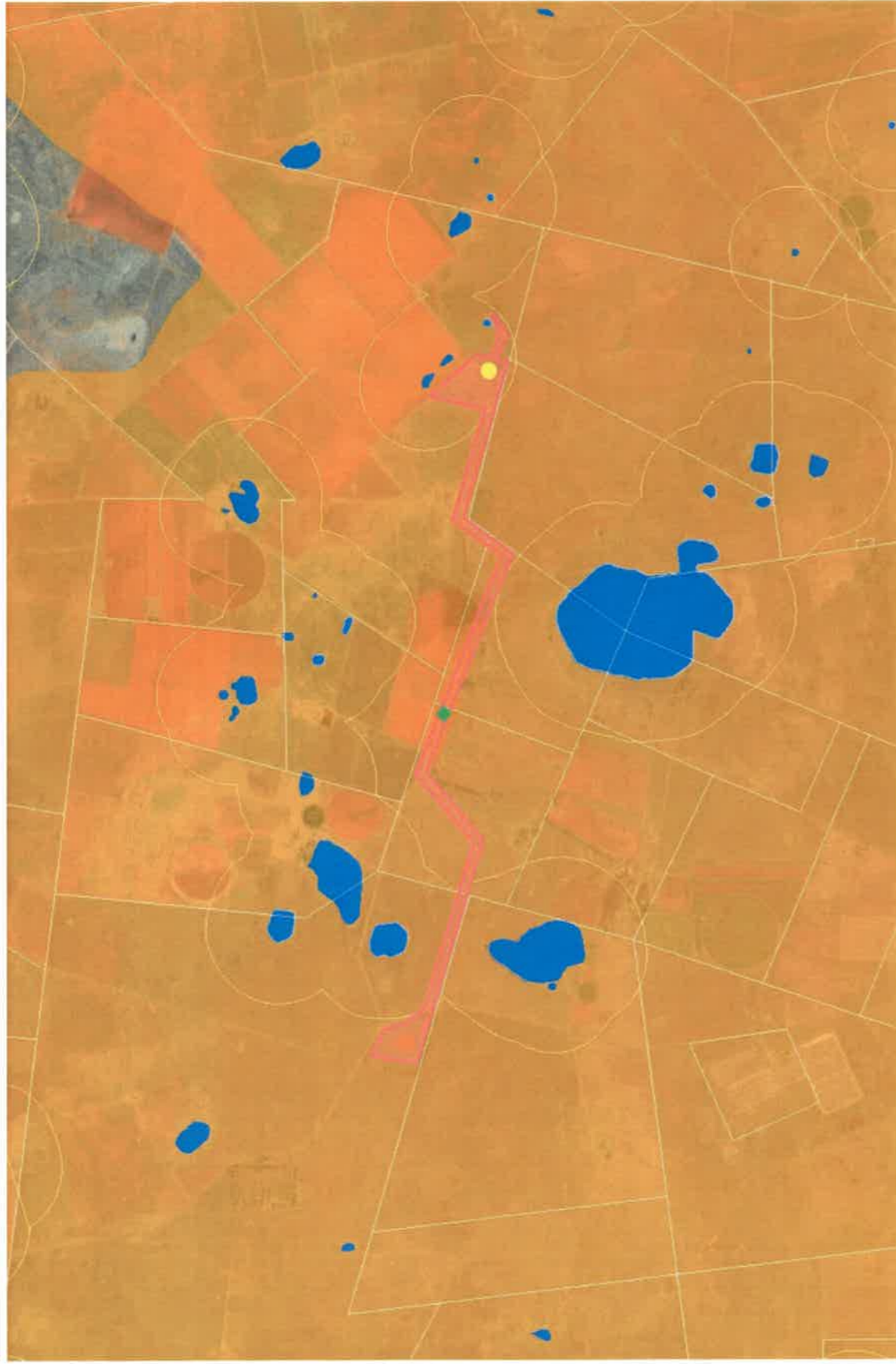
THIS MAP IS NOT TO BE USED FOR NAVIGATION



Description
Viserspan Solar PV Grid Connection map showing National Threatened Terrestrial Ecosystems for indicating:
total development footprint outlined in red;
Viserspan substation (location of orange dot);
Transmission corridor route (location of green diamond is approximate central point);
Kinderdam MTS (location of yellow dot - to the east of laydown and stockpile area).

Legend

- South Africa town points
- South African parent farm cadaster
- Rivers (NFEPA)
 - 1
 - 5
 - 10
- Wetland clusters (NFEPA)
- National wetlands map 4 (NFEPA)
- Threatened ecosystems original extents
 - Critically Endangered
 - Endangered
 - Vulnerable



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1,8 0 0,92 1,8 Kilometers

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