

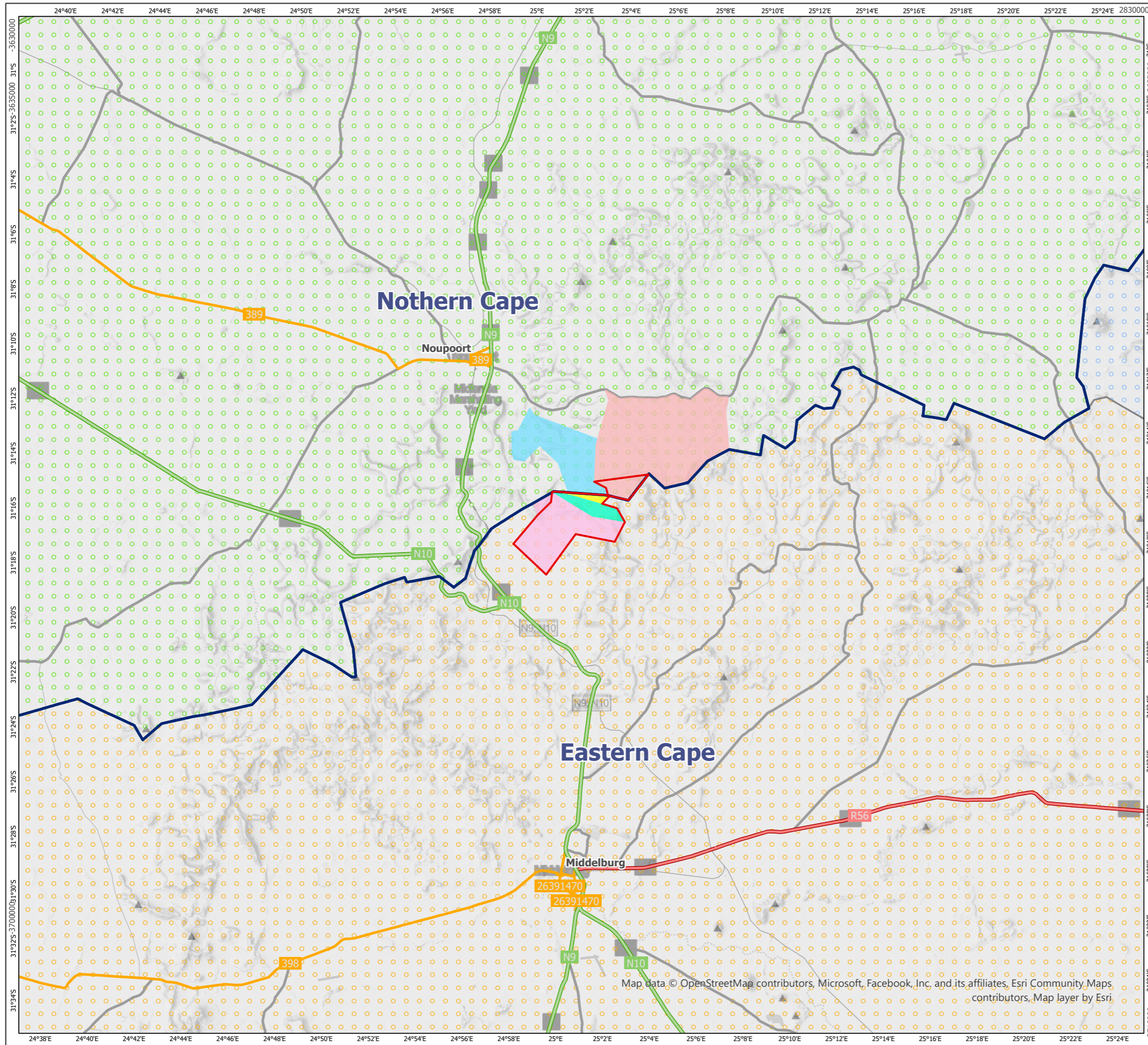
APPENDIX A: EMPR FIGURES

Figure 1: Site Locality Map

Figure 2: Final Site Layout Map

Figure 3: Final Site Layout overlain on the Environmental Sensitivity Map

Figure 4: Cumulative Map



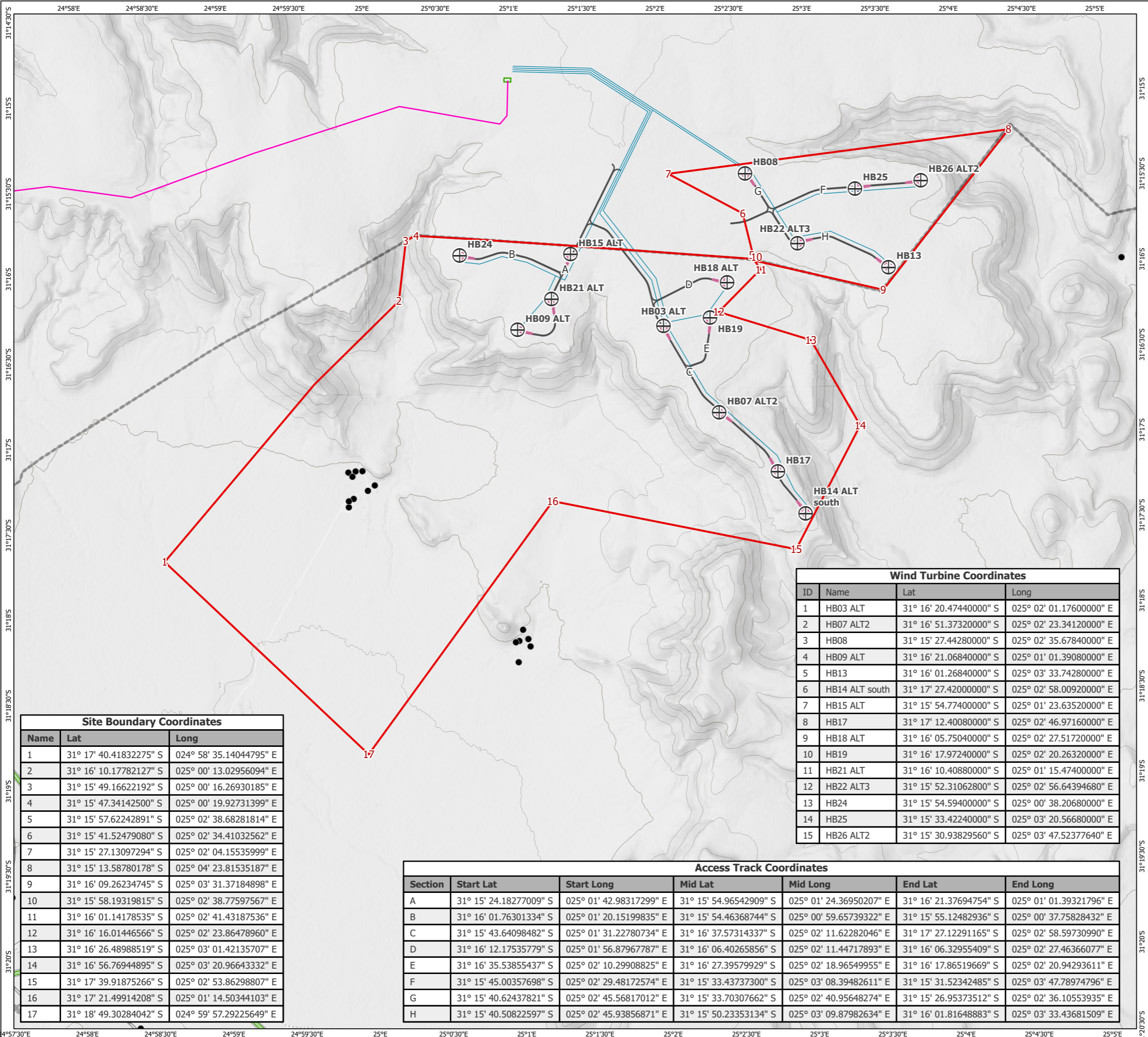
- Site Boundary
- Provinces
- Districts
 - Chris Hani
 - Joe Gqabi
 - Pixley ka Seme
- Hartebeesthoek East Farm Boundaries
 - 14 - Umsobomvu Municipality - Hartbeeshoek
 - 15/182 - Umsobomvu Municipality - Hartbeeshoek
 - Portion 1 of the Farm Twee Fontein No. 11
 - RE/181 - Taljaard - Holbrook
 - Remainder of the Farm No. 13
- Public Roads
 - National Road
 - Arterial Road
 - Main Road
 - Secondary Road

1:250,000 Scale @ A3
 0 5 10 km
 NORTH

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Checked By: AA	Date: 1/23/2023

Site Location
Figure 1

Hartebeeshoek East WEF
Final EMPr



- Site Boundary
- ⊕ Proposed Turbine Location
- Access Tracks
- Cable Route
- Crane Hardstanding
- House
- Public Roads
- National Road
- 132 kV Grid Infrastructure
- Kenzo SWS
- Mlotha - Kenzo 132kV Rev B

Site Boundary Coordinates		
Name	Lat	Long
1	31° 17' 40.41832275" S	024° 58' 35.14044795" E
2	31° 16' 10.17782127" S	025° 00' 13.02956094" E
3	31° 15' 49.16622192" S	025° 00' 16.26930185" E
4	31° 15' 47.34142500" S	025° 00' 19.92731399" E
5	31° 15' 57.62242891" S	025° 02' 38.68281814" E
6	31° 15' 41.52479080" S	025° 02' 34.41032562" E
7	31° 15' 27.13097294" S	025° 02' 04.15535999" E
8	31° 15' 13.58780178" S	025° 04' 23.81535187" E
9	31° 16' 09.26234745" S	025° 03' 31.37184898" E
10	31° 15' 58.19319815" S	025° 02' 38.77597567" E
11	31° 16' 01.14178535" S	025° 02' 41.43187536" E
12	31° 16' 16.01446566" S	025° 02' 23.86478960" E
13	31° 16' 26.48988519" S	025° 03' 01.42135707" E
14	31° 16' 56.76944895" S	025° 03' 20.96643332" E
15	31° 17' 39.91875266" S	025° 02' 53.86298807" E
16	31° 17' 21.49914208" S	025° 01' 14.50344103" E
17	31° 18' 49.30284042" S	024° 59' 57.29225649" E

Wind Turbine Coordinates			
ID	Name	Lat	Long
1	HB03 ALT	31° 16' 20.47440000" S	025° 02' 01.17600000" E
2	HB07 ALT2	31° 16' 51.37320000" S	025° 02' 23.34120000" E
3	HB08	31° 15' 27.44280000" S	025° 02' 35.67840000" E
4	HB09 ALT	31° 16' 21.06840000" S	025° 01' 01.39080000" E
5	HB13	31° 16' 01.26840000" S	025° 03' 33.74280000" E
6	HB14 ALT south	31° 17' 27.42000000" S	025° 02' 58.00920000" E
7	HB15 ALT	31° 15' 54.77400000" S	025° 01' 23.63520000" E
8	HB17	31° 17' 12.40080000" S	025° 02' 46.97160000" E
9	HB18 ALT	31° 16' 05.75040000" S	025° 02' 27.51720000" E
10	HB19	31° 16' 17.97240000" S	025° 02' 20.26320000" E
11	HB21 ALT	31° 16' 10.40880000" S	025° 01' 15.47400000" E
12	HB22 ALT3	31° 15' 52.31062800" S	025° 02' 56.64394680" E
13	HB24	31° 15' 54.59400000" S	025° 00' 38.20680000" E
14	HB25	31° 15' 33.42240000" S	025° 03' 20.56680000" E
15	HB26 ALT2	31° 15' 30.93829560" S	025° 03' 47.52377640" E

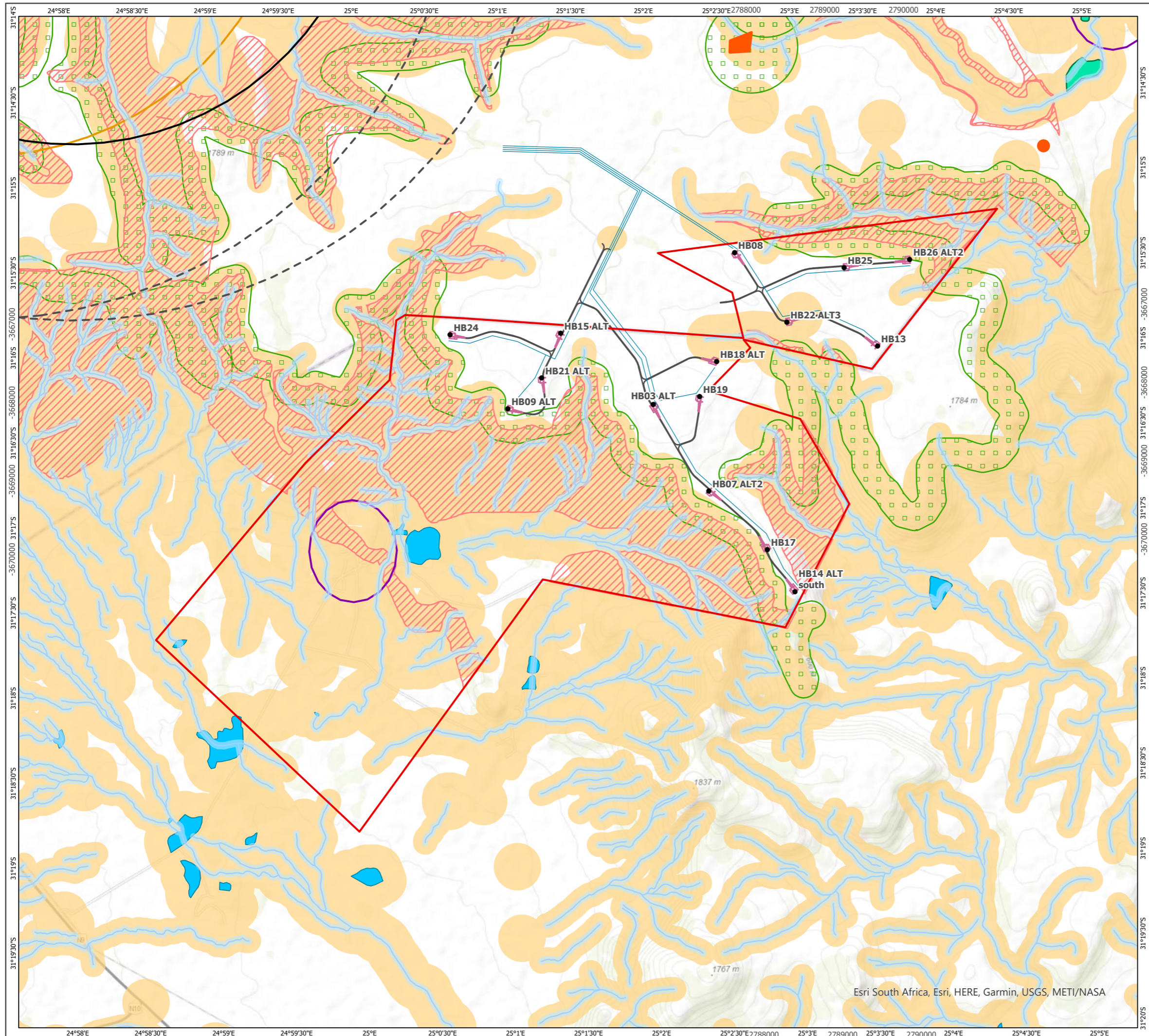
Access Track Coordinates						
Section	Start Lat	Start Long	Mid Lat	Mid Long	End Lat	End Long
A	31° 15' 24.18277009" S	025° 01' 42.98317299" E	31° 15' 54.96542909" S	025° 01' 24.36950207" E	31° 16' 21.37694754" S	025° 01' 01.39321796" E
B	31° 16' 01.76301334" S	025° 01' 20.15199835" E	31° 15' 54.46368744" S	025° 00' 59.65739322" E	31° 15' 55.12482936" S	025° 00' 37.75828432" E
C	31° 15' 43.64098482" S	025° 01' 31.22780734" E	31° 16' 37.57314337" S	025° 02' 11.62282046" E	31° 17' 27.12291165" S	025° 02' 58.59730990" E
D	31° 16' 12.17535779" S	025° 01' 56.87967787" E	31° 16' 06.40265856" S	025° 02' 11.44717893" E	31° 16' 06.32955409" S	025° 02' 27.46366077" E
E	31° 16' 35.53855437" S	025° 02' 10.29908825" E	31° 16' 27.39579929" S	025° 02' 18.96549955" E	31° 16' 17.86519669" S	025° 02' 20.94293611" E
F	31° 15' 45.00357698" S	025° 02' 29.48172574" E	31° 15' 33.43737300" S	025° 03' 08.39482611" E	31° 15' 31.52342485" S	025° 03' 47.78974796" E
G	31° 15' 40.62437821" S	025° 02' 45.56817012" E	31° 15' 33.70307662" S	025° 02' 40.95648274" E	31° 15' 26.95373512" S	025° 02' 36.10553935" E
H	31° 15' 40.50822597" S	025° 02' 45.93856871" E	31° 15' 50.23353134" S	025° 03' 09.87982634" E	31° 16' 01.81648883" S	025° 03' 33.43681509" E



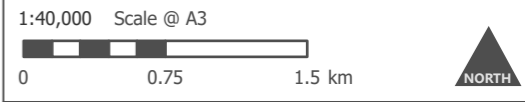
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Final Site Layout
Figure 2

Hartebeeshoek East WEF
Final EMPr



- Site Boundary
- Proposed Turbine Location
- Access Tracks
- Cable Route
- Crane Hardstanding
- No-Go Areas (Very High Sensitivity)**
- VE Nest Site
- Cultural Heritage No-Go Area
- Watercourse 32m buffer
- No turbines but other infrastructure permitted**
- Water Courses
- Waterbodies and wetlands
- Dams
- Hartbeeshoek Geology
- 3.4 km buffer of VE Nest Site
- 500m Noise Buffers
- Ecology High Sensitivity Areas
- Avifaunal Sensitivity
- Bat no go areas for Turbines
- Avifaunal Buffers**
- 3.2 km buffer of VE Nest - construction subject to proactive mitigation
- Medium Sensitivity of Birds - 5.2 km operational phase buffer (for pro-active mitigation)

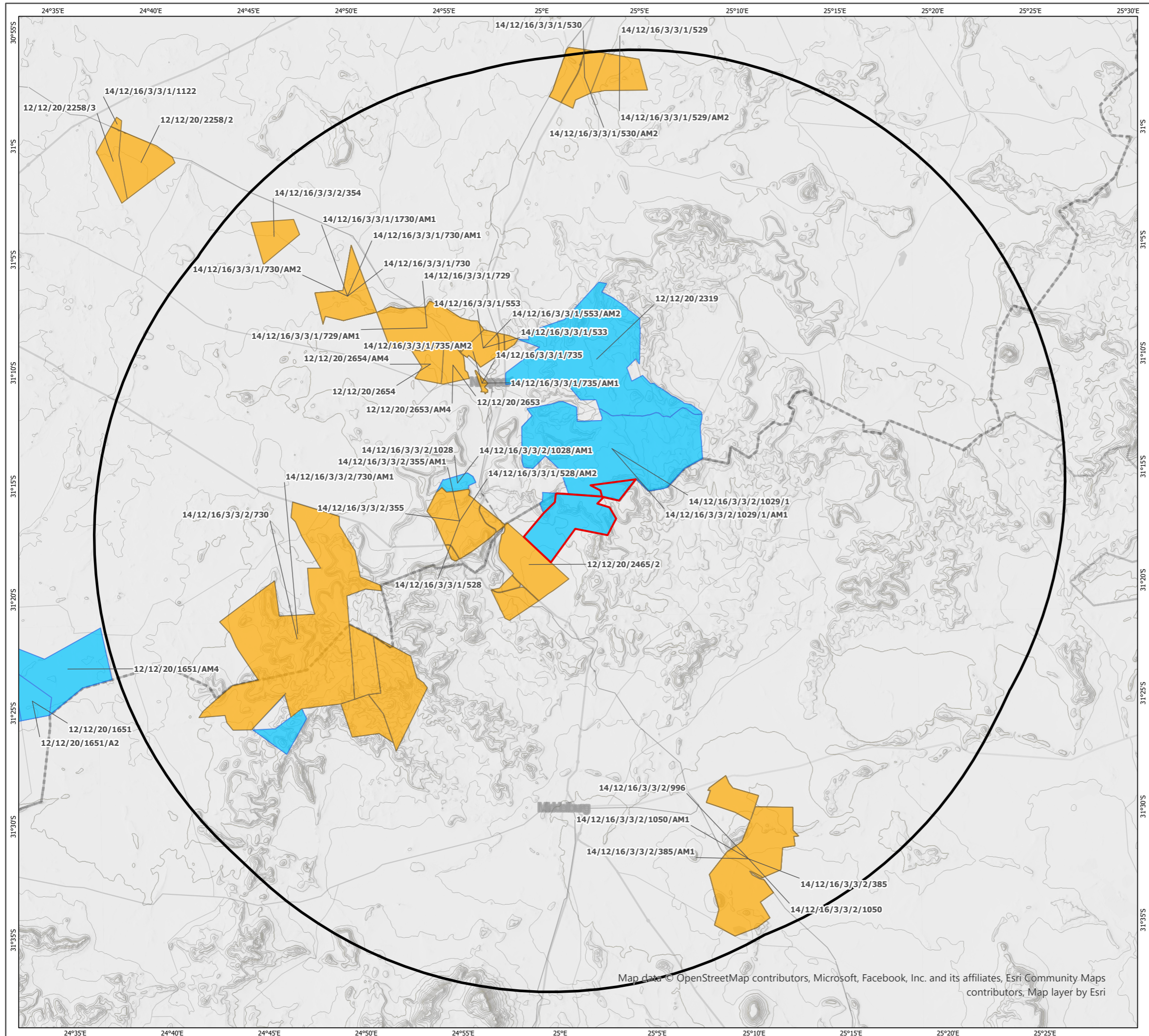


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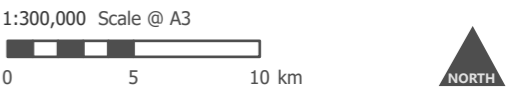
Final Layout overlay on Environmental Sensitivity Map
Figure 3

Hartbeeshoek East WEF Final EMP

Esri South Africa, Esri, HERE, Garmin, USGS, METI/NASA



- Site Boundary
- 35 km buffer of Site Boundary
- Cumulative Developments
- Technology
- Solar PV
- Onshore Wind



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Cumulative Map
Figure 4

Hartebeeshoek East WEF
Final EMPr

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