












PROPOSED CONSTRUCTION OF THE LEEUDORINGSTAD SOLAR PLANT SUBSTATION

NEAR LEEUDORINGSTAD
NORTH WEST PROVINCE

ASSOCIATED PROJECTS

Legend

-  Main Road
-  Railway
-  Existing High Voltage Power Lines (88, 132 & 400kV)
-  Existing Substations
-  Leeuwbosch PV1 & PV2 Application Site
-  Wildebeestkuil PV1 & PV2 Application Site
-  PV Project Development Areas
-  Proposed Power Line Corridor (Option 1)
-  Proposed Power Line Corridor (Option 2A)
-  Proposed Power Line Corridor (Option 2B)
-  Proposed New Substation Site Alternatives



SOURCE:
GOOGLE EARTH, 2016












		
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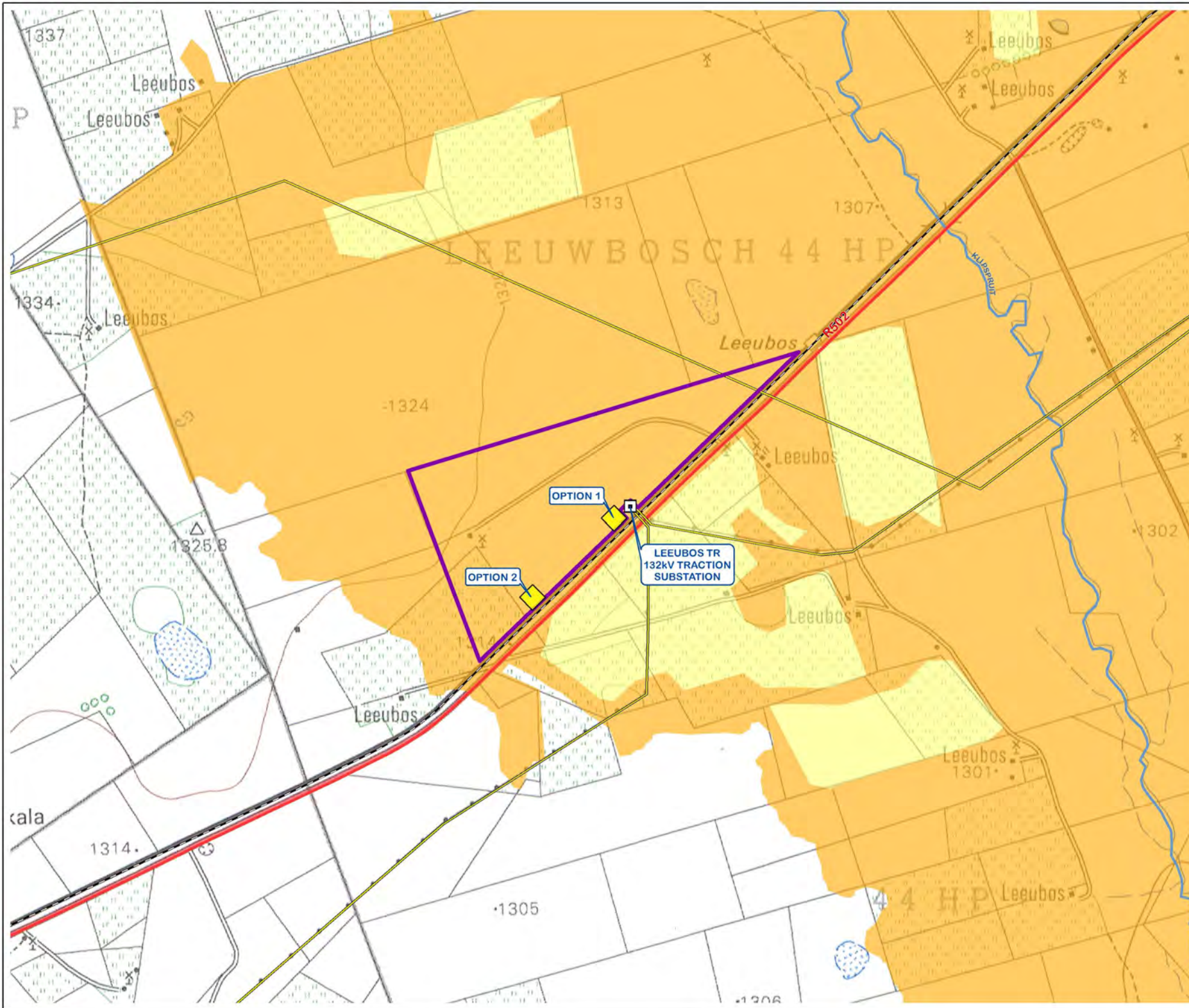
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**PROPOSED
CONSTRUCTION OF
THE LEEUDORINGSTAD
SOLAR PLANT SUBSTATION
NEAR LEEUDORINGSTAD
NORTH WEST PROVINCE
CRITICAL BIODIVERSITY
AREAS**

- Legend**
-  Main Roads
 -  Railway
 -  Rivers
 -  Existing High Voltage Power Lines (88, 132 & 400kV)
 -  Existing Substations
 -  Portion 37 of the Farm Leeuwbosch No 44
 -  Proposed Substation Site Alternatives
- Critical Biodiversity Areas**
-  CBA1
 -  CBA2
 -  ESA1
 -  ESA2



SOURCE:
ESKOM, 2012
2013-2014 SA NATIONAL LAND COVER
(© GEOTERRAIMAGE - 2014)





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PROPOSED CONSTRUCTION OF THE LEEUDORINGSTAD SOLAR PLANT SUBSTATION

NEAR LEEUDORINGSTAD
NORTH WEST PROVINCE

BROAD LAND COVER CLASSIFICATION

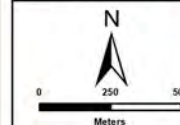
Legend

-  Main Roads
-  Railway
-  Rivers
-  Existing High Voltage Power Lines (88, 132 & 400kV)
-  Existing Substations
-  Portion 37 of the Farm Leeuwbosch No 44
-  Proposed Substation Site Alternatives

Land Cover Classification

-  Built-Up Areas
-  Cultivated Land
-  Forested Land
-  Grassland
-  Shrubland
-  Wetlands / Waterbodies

SOURCE:
ESKOM, 2012
2013-2014 SA NATIONAL LAND COVER
(© GEOTERRAIMAGE - 2014)



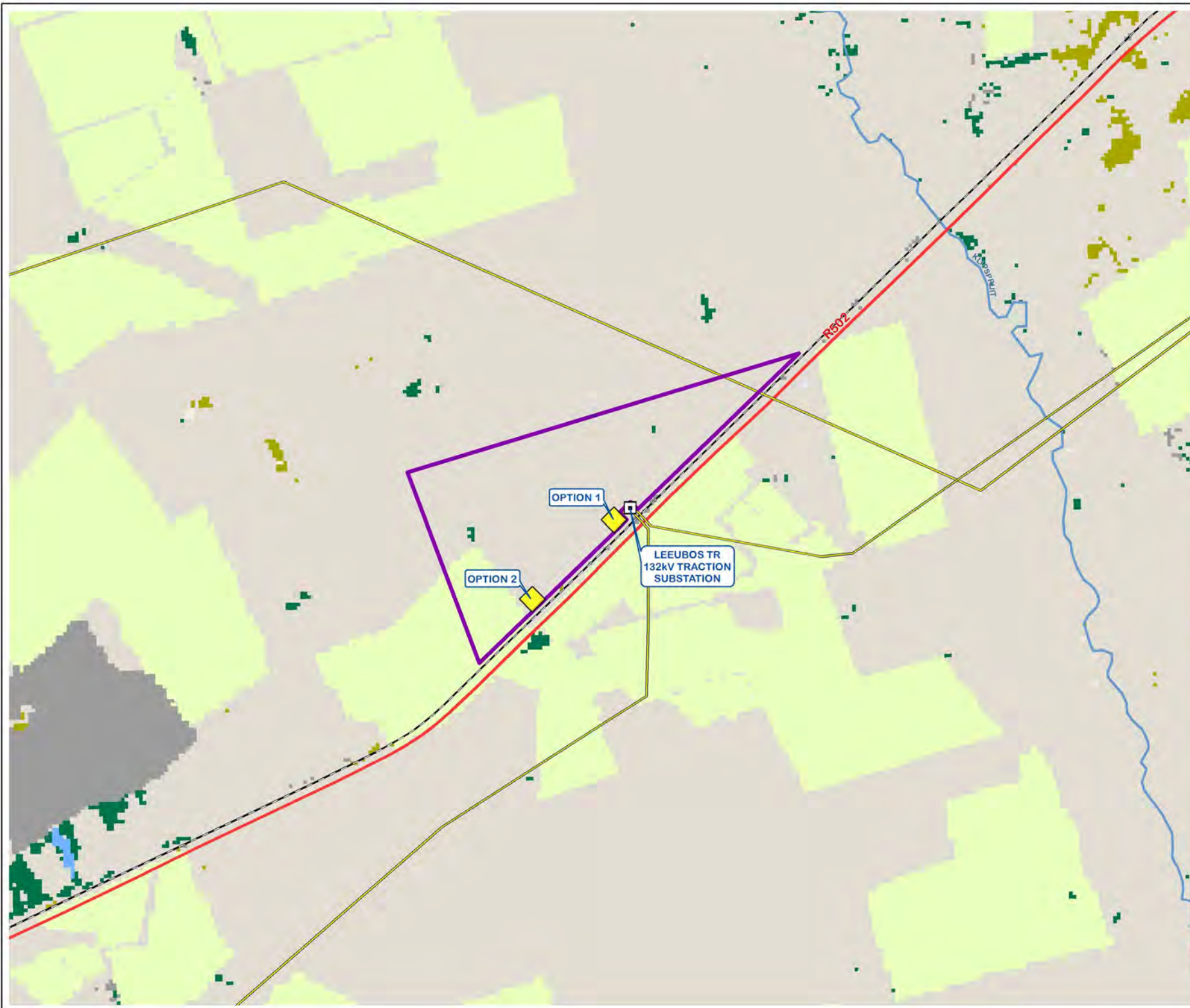
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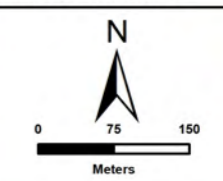
**PROPOSED
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SOLAR PLANT SUBSTATION
NEAR LEEUDORINGSTAD
NORTH WEST PROVINCE
PREFERRED SITE ALTERNATIVE
WITH ENVIRONMENTAL SENSITIVITY
OVERLAY**

Legend

-  Main Roads
 -  Railway
 -  Existing High Voltage Power Lines (132 & 400kV)
 -  Existing Substation
 -  Portion 37 of the Farm Leeuwbosch No 44
 -  Preferred Substation Site: Option 1
- Environmental Sensitivity**
-  Heritage Sensitivity
 -  Wetlands
 -  Surface Water Buffers (50m)



SOURCE:
ESKOM, 2012
GOOGLE EARTH, 2019



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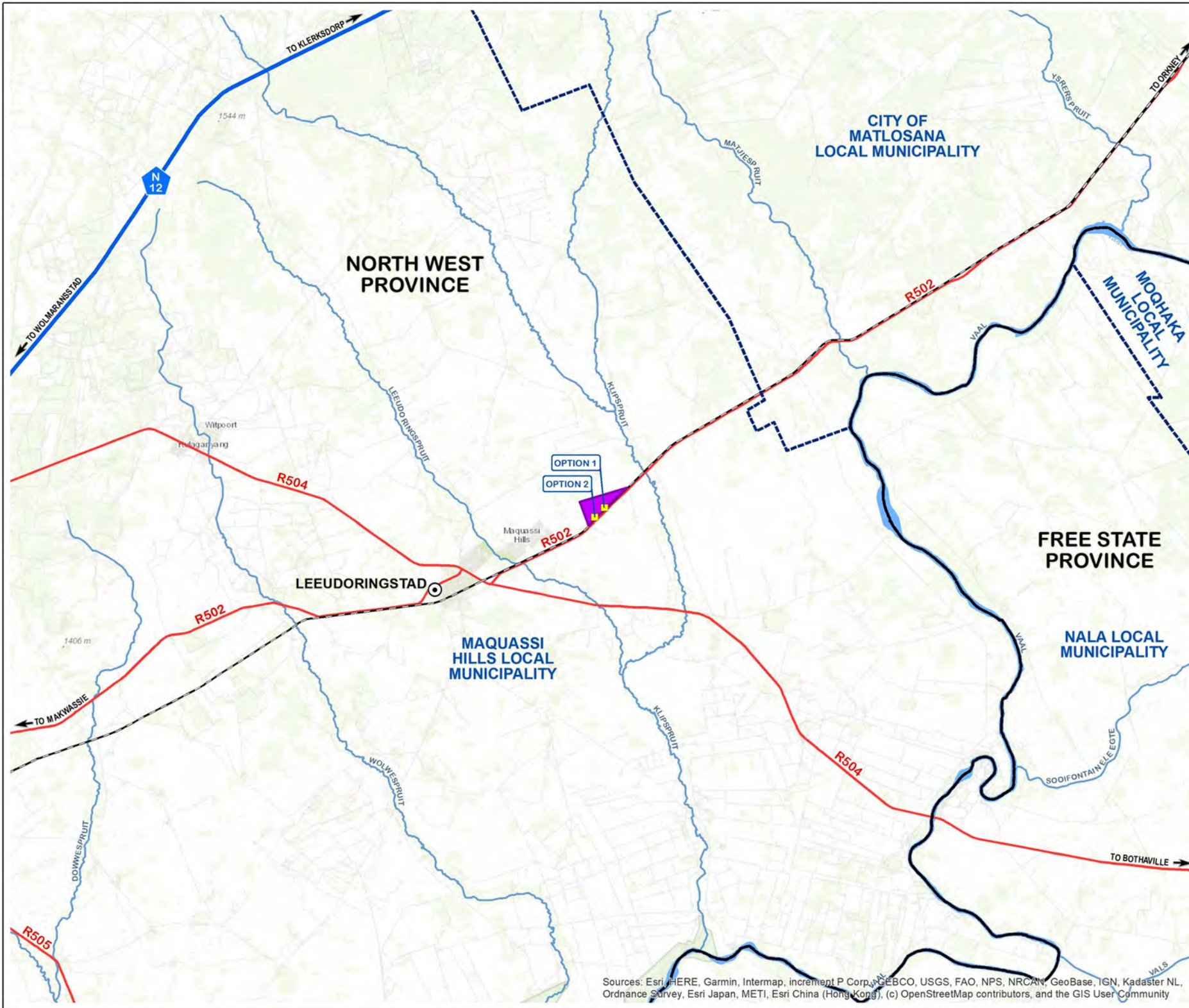
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PROPOSED CONSTRUCTION OF THE LEEUDORINGSTAD SOLAR PLANT SUBSTATION

NEAR LEEUDORINGSTAD NORTH WEST PROVINCE

REGIONAL CONTEXT

- Legend**
- Main Towns
 - Provincial Boundaries
 - Local Municipal Boundaries
 - National Route (N12)
 - Main Roads
 - Railway
 - Rivers
 - Portion 37 of the Farm Leeuwbosch No 44
 - Proposed Substation Site Alternatives

SOURCE:
 ESRI, 2020
 MUNICIPAL DEMARCATION BOARD, 2016
 NGI, 2015

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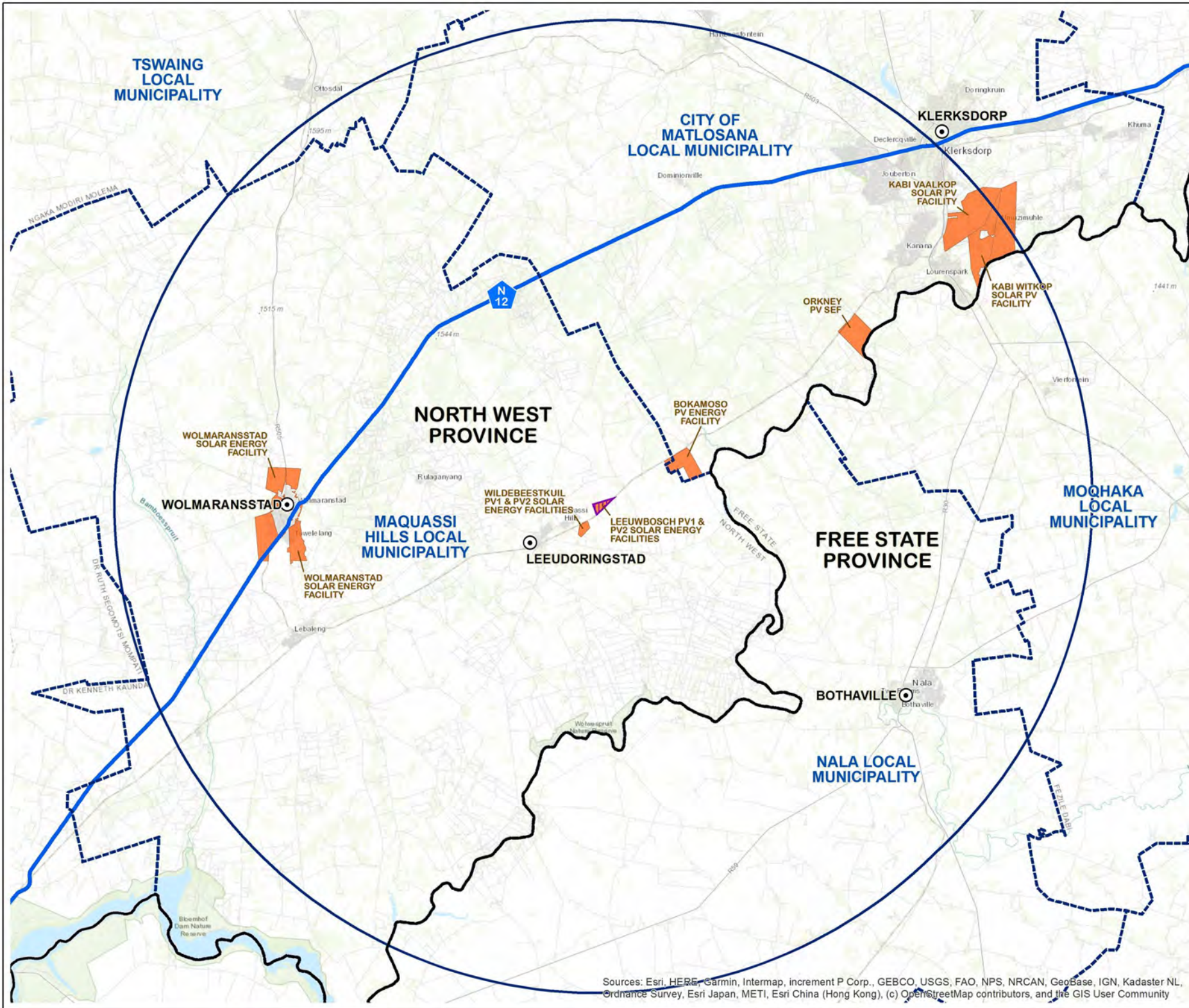
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Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



PROPOSED CONSTRUCTION OF THE LEEUDORINGSTAD SOLAR PLANT SUBSTATION
NEAR LEEUDORINGSTAD NORTH WEST PROVINCE
RENEWABLE ENERGY PROJECTS (PROPOSED)

- Legend**
- Main Towns
 - Provincial Boundaries
 - Local Municipal Boundaries
 - National Route (N12)
 - Portion 37 of the Farm Leeuwbosch No 44
 - 50km Radius
- Renewable Energy Application Sites**
- Solar PV

SOURCE:
 DEFF, 2020
 ESRI, 2020
 MUNICIPAL DEMARCATION BOARD, 2016

0 5 10
 Kilometers

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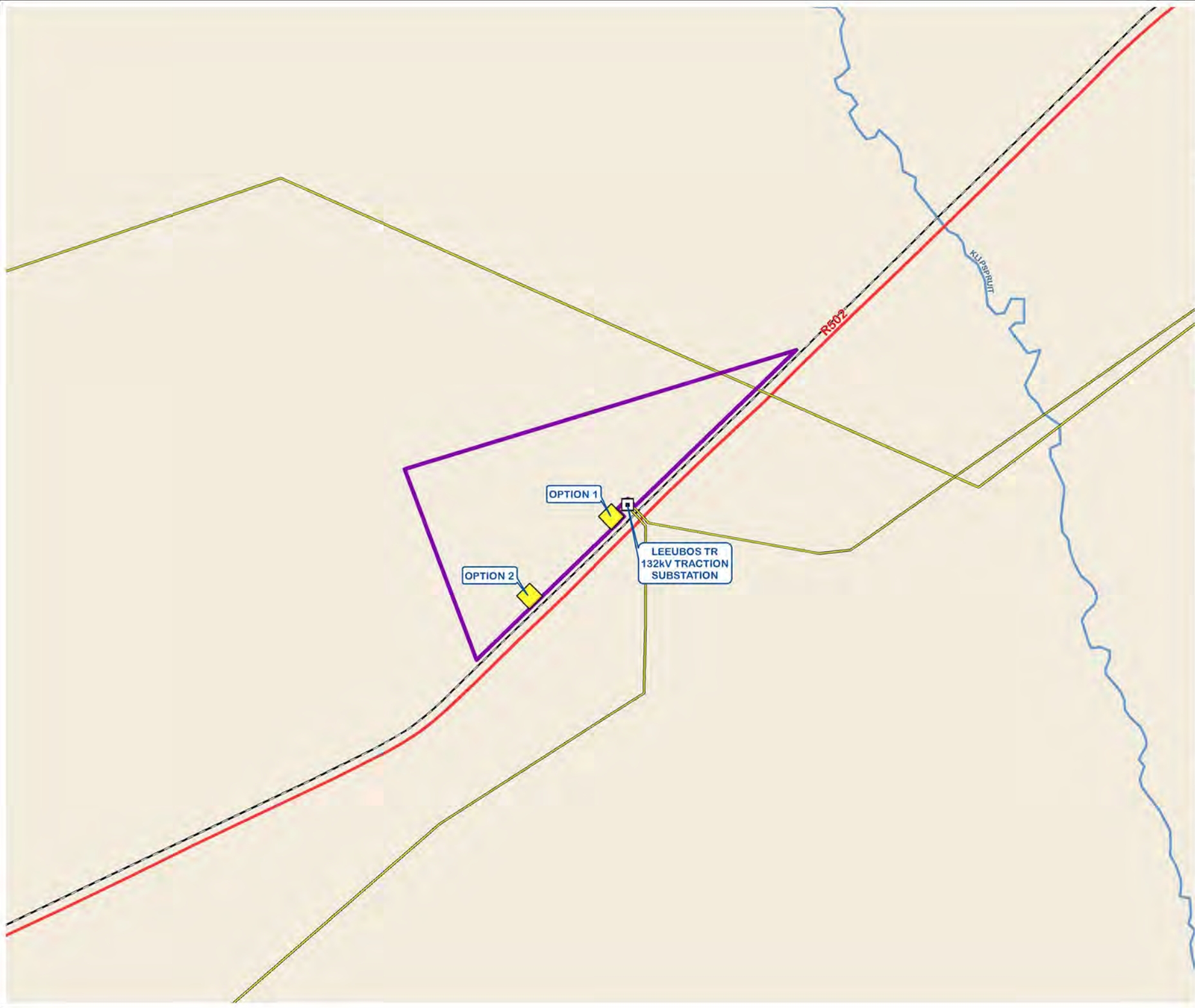
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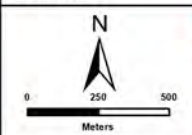
**PROPOSED
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THE LEEUDORINGSTAD
SOLAR PLANT SUBSTATION
NEAR LEEUDORINGSTAD
NORTH WEST PROVINCE
VEGETATION CLASSIFICATION**

Legend

- Main Roads
 - - - Railway
 - Rivers
 - Existing High Voltage Power Lines (88, 132 & 400kV)
 - Existing Substations
 - Portion 37 of the Farm Leeuwbosch No 44
 - Proposed Substation Site Alternatives
- Vegetation Classification**
- Vaal-Vet Sandy Grassland



SOURCE:
ESKOM, 2012
SANBI, 2018



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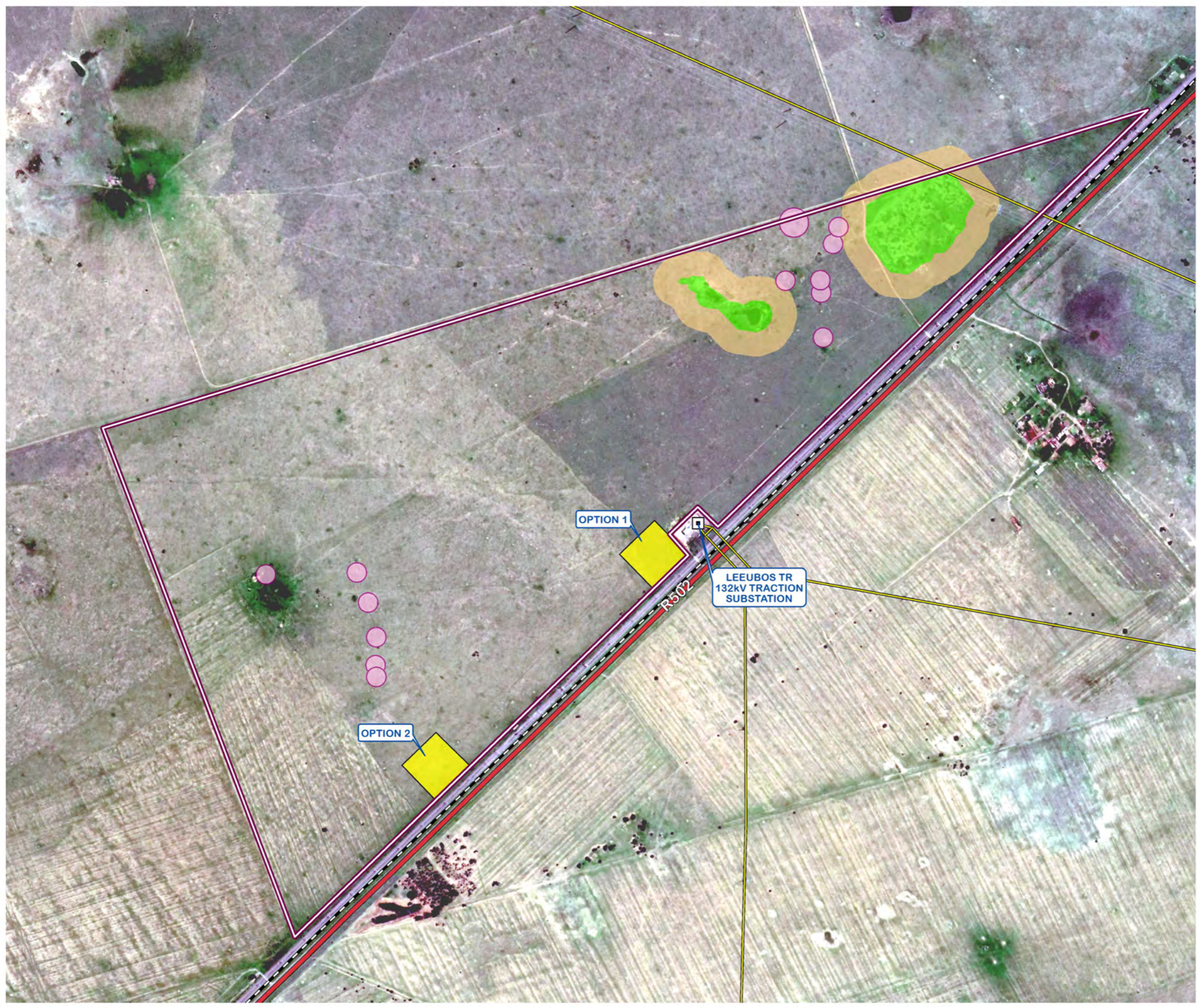
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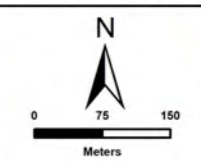
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**PROPOSED
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SOLAR PLANT SUBSTATION**
NEAR LEEUDORINGSTAD
NORTH WEST PROVINCE
PROPOSED SITE ALTERNATIVES
WITH ENVIRONMENTAL SENSITIVITY
OVERLAY



- Legend**
- Main Roads
 - Railway
 - Existing High Voltage Power Lines (132 & 400kV)
 - Existing Substation
 - Portion 37 of the Farm Leeuwbosch No 44
 - Proposed Substation Site Alternatives
- Environmental Sensitivity**
- Heritage Sensitivity
 - Wetlands
 - Surface Water Buffers (50m)

SOURCE:
ESKOM, 2012
GOOGLE EARTH, 2019



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PROPOSED CONSTRUCTION OF THE LEEUDORINGSTAD SOLAR PLANT SUBSTATION

NEAR LEEUDORINGSTAD
NORTH WEST PROVINCE

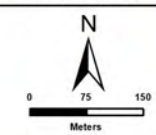
PROPOSED SITE ALTERNATIVES



Legend

- Main Roads
- Railway
- Existing High Voltage Power Lines (132 & 400kV)
- Existing Substation
- Portion 37 of the Farm Leeuwbosch No 44
- Proposed Substation Site Alternatives

SOURCE:
ESKOM, 2012
GOOGLE EARTH, 2019



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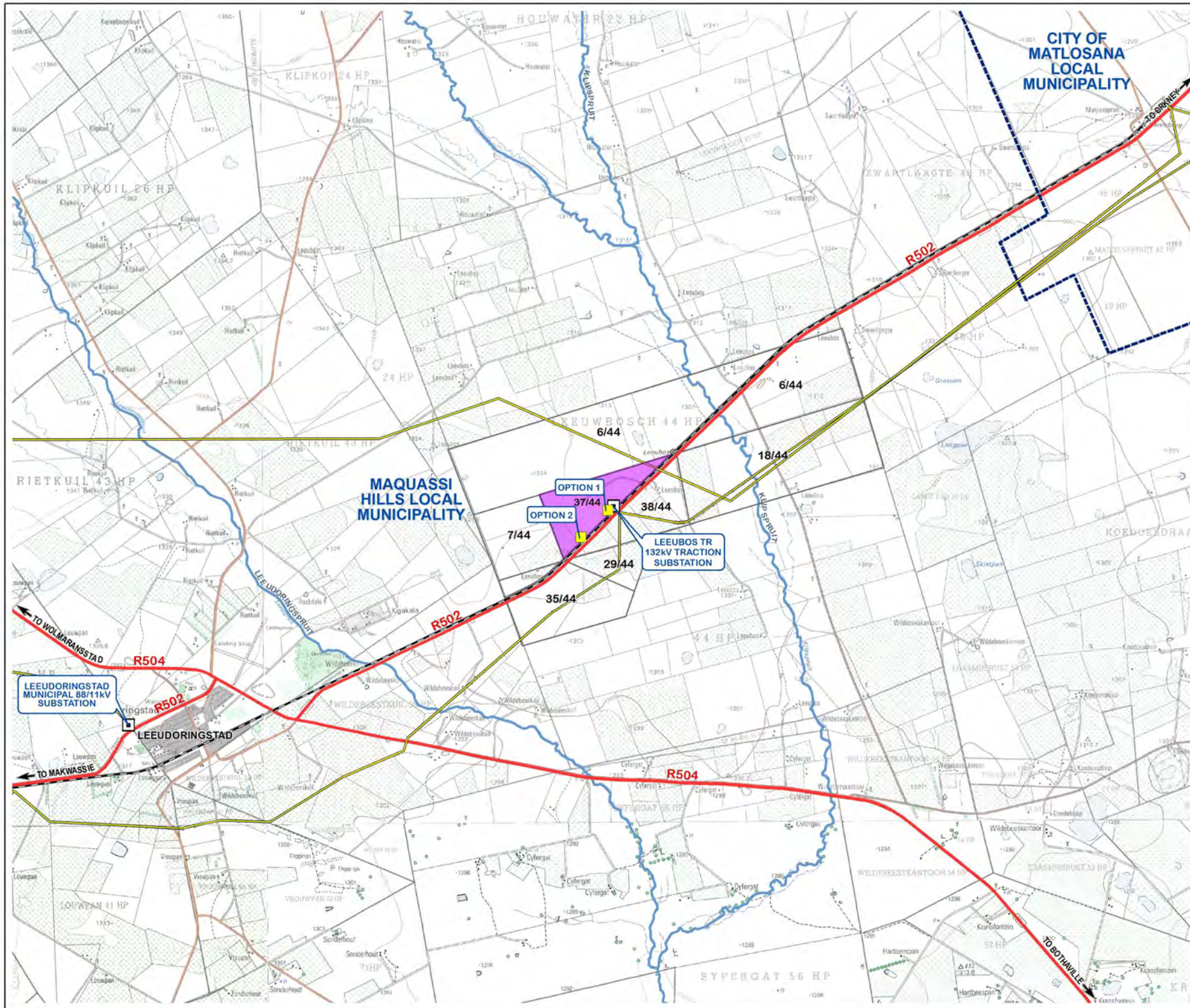
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PROPOSED CONSTRUCTION OF THE LEEUDORINGSTAD SOLAR PLANT SUBSTATION NEAR LEEUDORINGSTAD NORTH WEST PROVINCE
SITE LOCALITY

- Legend**
- Local Municipal Boundaries
 - Main Roads
 - Secondary Roads
 - Railway
 - Rivers
 - Existing High Voltage Power Lines (88, 132 & 400kV)
 - Existing Substations
 - Adjoining Farm Boundaries
 - Portion 37 of the Farm Leeuwbosch No 44
 - Proposed Substation Site Alternatives

SOURCE:
 ESKOM, 2012
 MUNICIPAL DEMARCATION BOARD, 2016
 NGI, 2015

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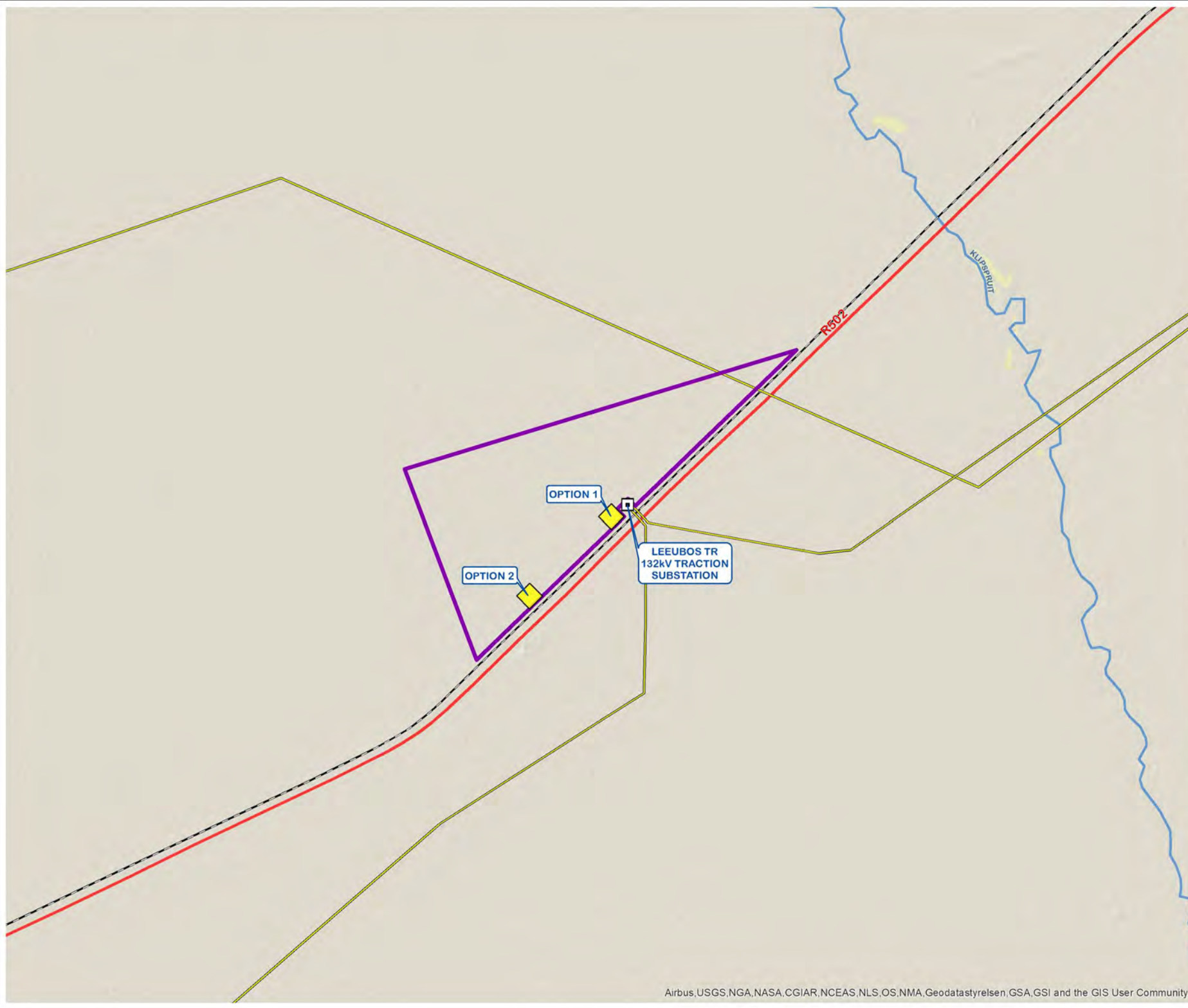
**PROPOSED
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SOLAR PLANT SUBSTATION
NEAR LEEUDORINGSTAD
NORTH WEST PROVINCE
SLOPE CLASSIFICATION**

Legend

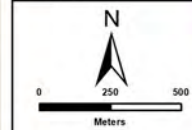
- Main Roads
- - - Railway
- Rivers
- Existing High Voltage Power Lines (88, 132 & 400kV)
- Existing Substations
- Portion 37 of the Farm Leeuwbosch No 44
- Proposed Substation Site Alternatives

Slope Classification

- Flatter than 1:50
- 1:50 - 1:20



SOURCE:
ESKOM, 2012
ESRI, 2020
NGI, 2015



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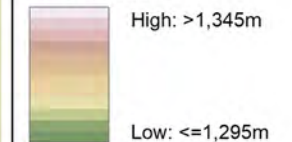
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**PROPOSED
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SOLAR PLANT SUBSTATION
NEAR LEEUDORINGSTAD
NORTH WEST PROVINCE
TOPOGRAPHY**

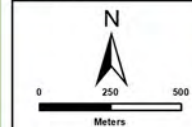
Legend

-  Main Roads
-  Railway
-  Rivers
-  Contours (20m Interval)
-  Contours (5m Interval)
-  Existing High Voltage Power Lines (88, 132 & 400kV)
-  Existing Substations
-  Portion 37 of the Farm Leeuwbosch No 44
-  Proposed Substation Site Alternatives

Elevation (msl)



SOURCE:
ESKOM, 2012
ESRI, 2020
NGI, 2015



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