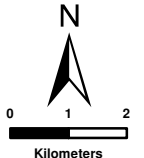


**PROPOSED
CONSTRUCTION OF A
140MW WIND ENERGY
FACILITY
ALETTA WIND
NEAR COPPERTON
NORTHERN CAPE PROVINCE
TOPOGRAPHY**

- Legend**
- Main Roads
 - Railway Line
 - Existing High Voltage Power Lines (400kV)
 - Main Rivers/Water Courses
 - Contours (20m Interval)
 - Contours (5m Interval)
 - Existing Substation
 - Application Site
 - Proposed Aletta Wind Development Area

SOURCE:
ESKOM, 2012
BIOTERM ENERGY, 2015
NGI, 2014



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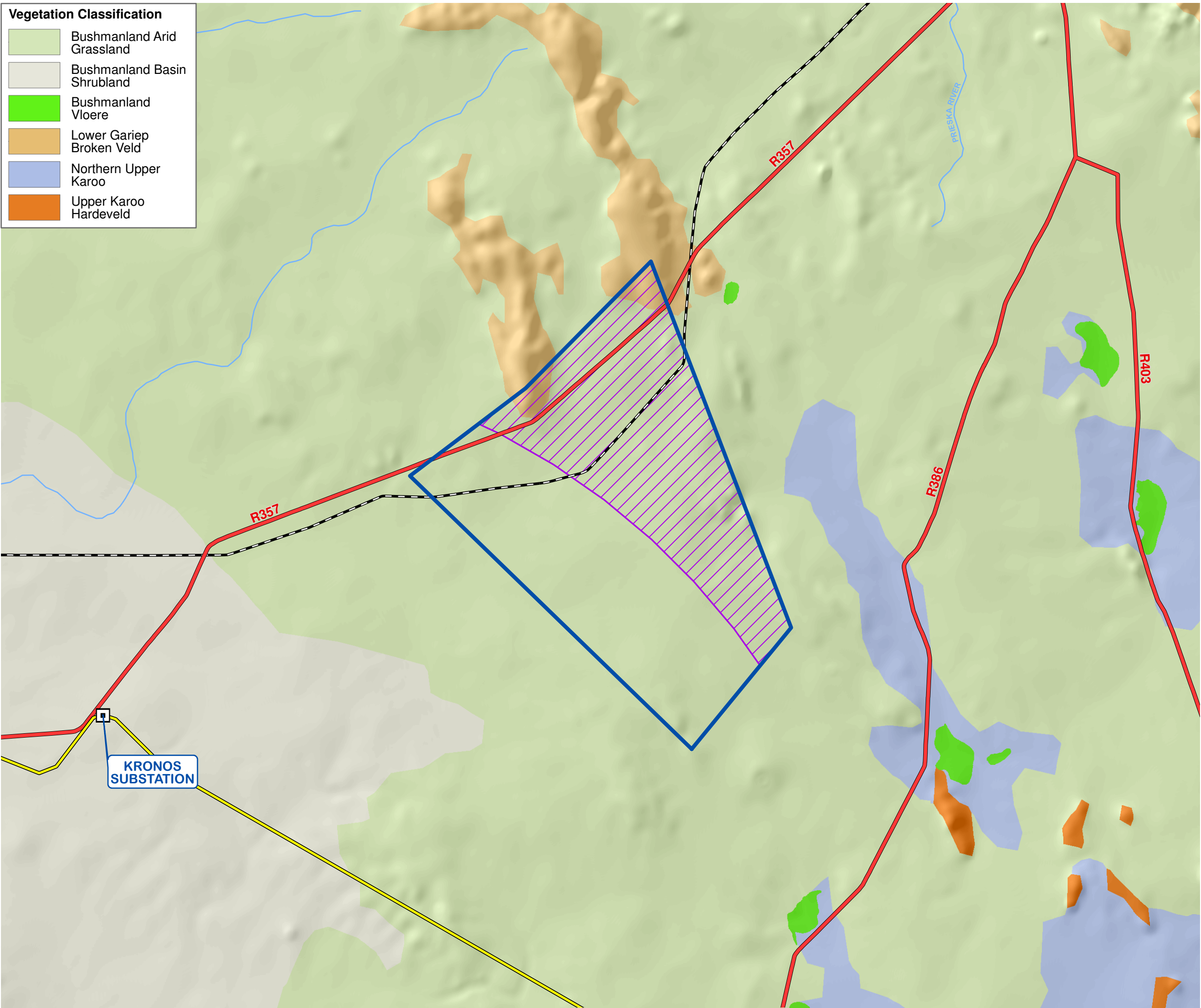
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Vegetation Classification

- Bushmanland Arid Grassland
- Bushmanland Basin Shrubland
- Bushmanland Vloere
- Lower Gariep Broken Veld
- Northern Upper Karoo
- Upper Karoo Hardeveld

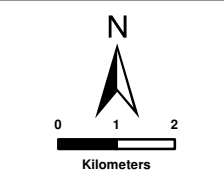


**PROPOSED
CONSTRUCTION OF A
140MW WIND ENERGY
FACILITY
ALETTA WIND
NEAR COPPERTON
NORTHERN CAPE PROVINCE
VEGETATION CLASSIFICATION**

Legend

- Main Roads
- Railway Line
- Existing High Voltage Power Lines (400kV)
- Main Rivers/Water Courses
- Existing Substation
- Application Site
- Proposed Aletta Wind Development Area

SOURCE:
ESKOM, 2012
BIOTHERM ENERGY, 2015
SANBI, 2009



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CONSTRUCTION OF A
140MW WIND ENERGY
FACILITY
ALETTA WIND
NEAR COPPERTON
NORTHERN CAPE PROVINCE
SURFACE WATER ASSESSMENT:
SURFACE WATER DELINEATION**

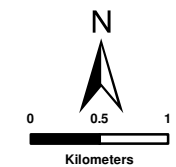
Legend

-  Main Roads
-  Railway Line
-  Application Site
-  Proposed Aletta Wind Development Area
-  Proposed Turbine Positions (60 Turbines)
-  Substation Site Alternatives
-  O&M Site Alternatives

Surface Water Features

-  Wetlands
-  Artificial Features
-  Wetland Buffers (50m)
-  Drainage Lines
-  Drainage Line Buffers (50m)

SOURCE:
ESKOM, 2012
BIOTHERM ENERGY, 2016
GOOGLE EARTH, 2015



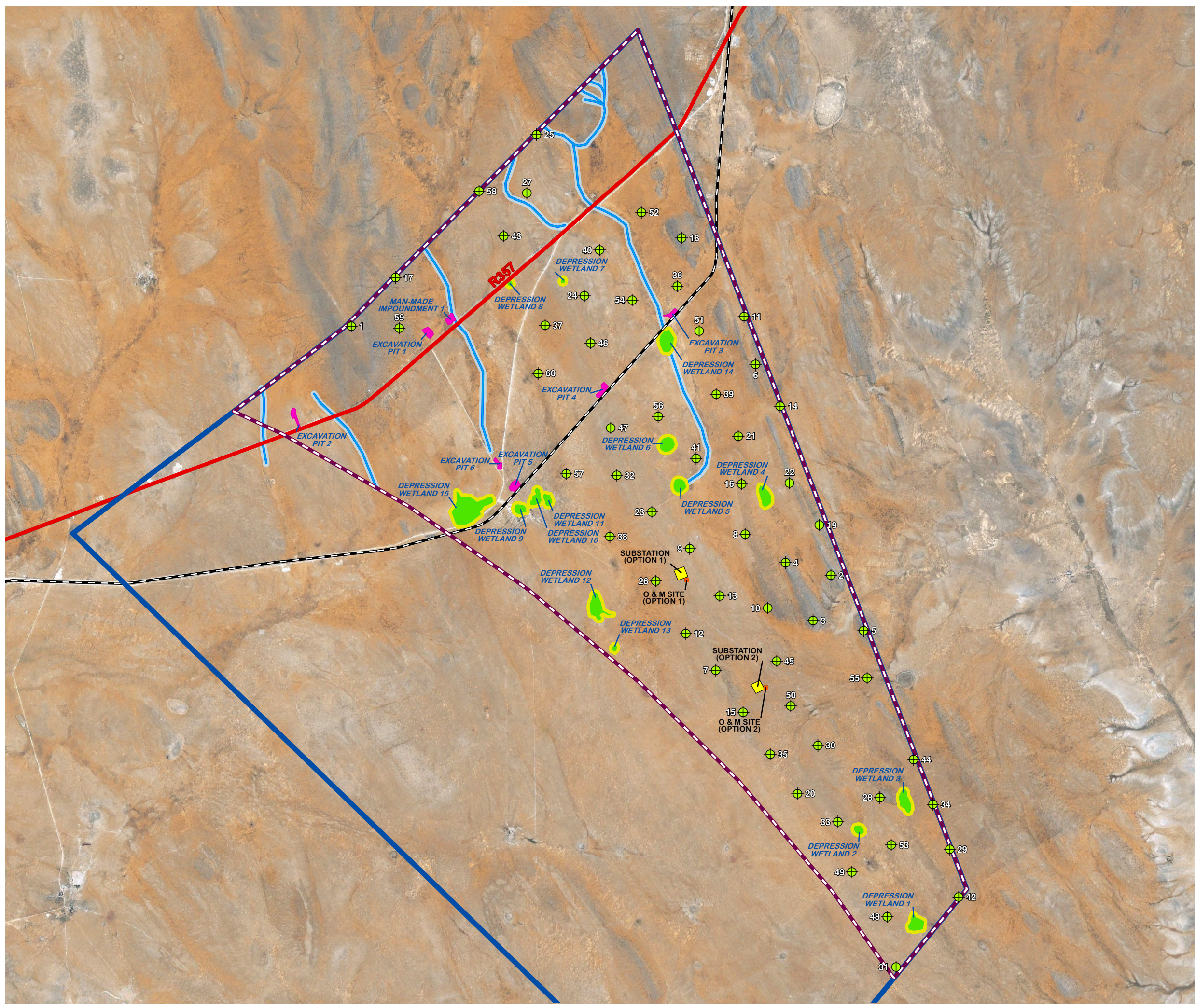
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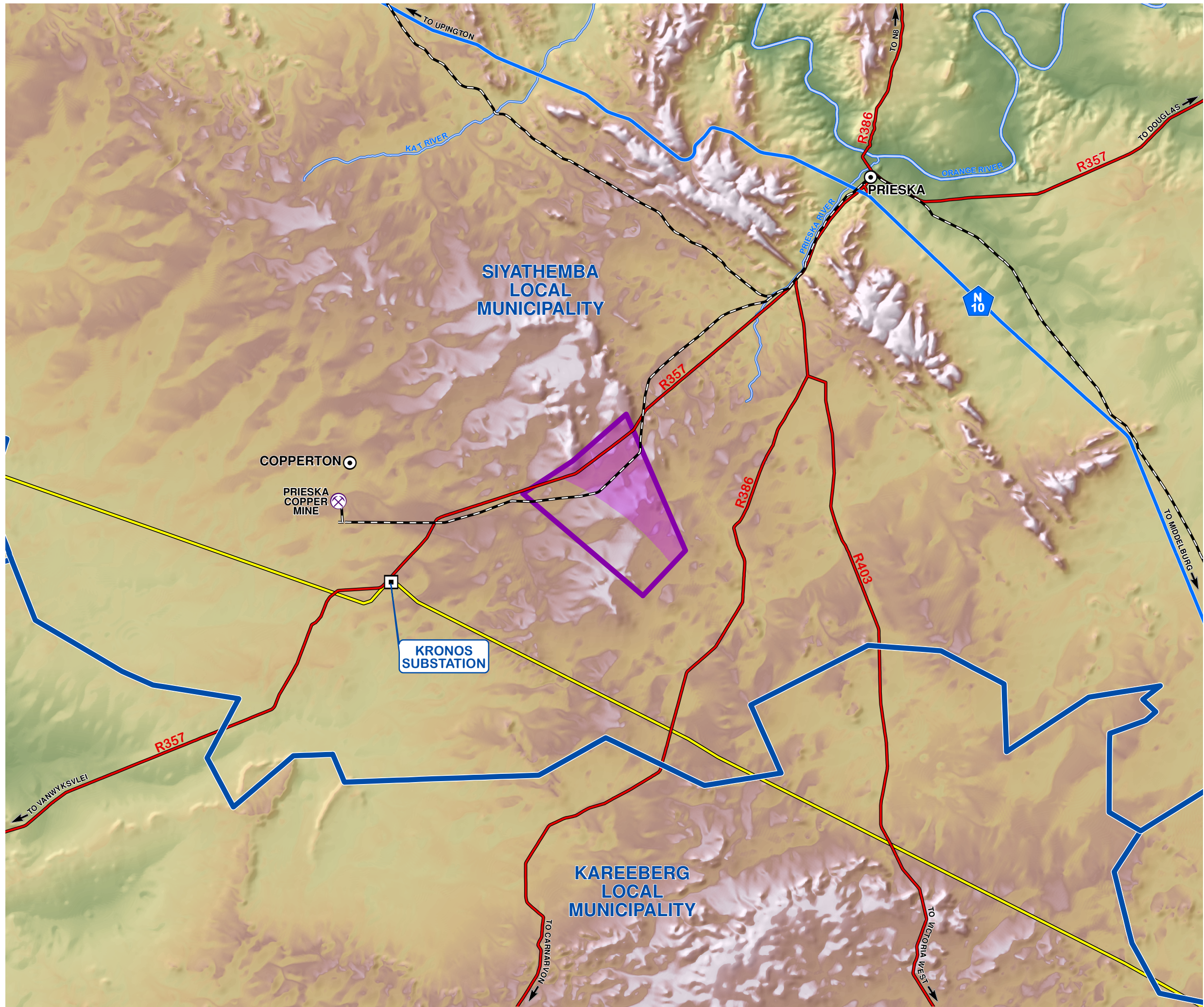
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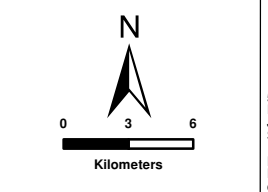
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FACILITY
ALETTA WIND
NEAR COPPERTON
NORTHERN CAPE PROVINCE
SURFACE WATER ASSESSMENT:
REGIONAL CONTEXT**



Legend

-  Local Municipal Boundaries
-  National Route (N10)
-  Main Roads
-  Railway Line
-  Existing High Voltage Power Lines (400kV)
-  Main Rivers
-  Main Towns
-  Kronos MTS Substation
-  Application Site
-  Proposed Aletta Wind Development Area

SOURCE:
BIOTHERM ENERGY, 2015
ESKOM, 2012
MUNICIPAL DEMARCATION BOARD, 2011
NFEPA, 2011
NGI, 2014

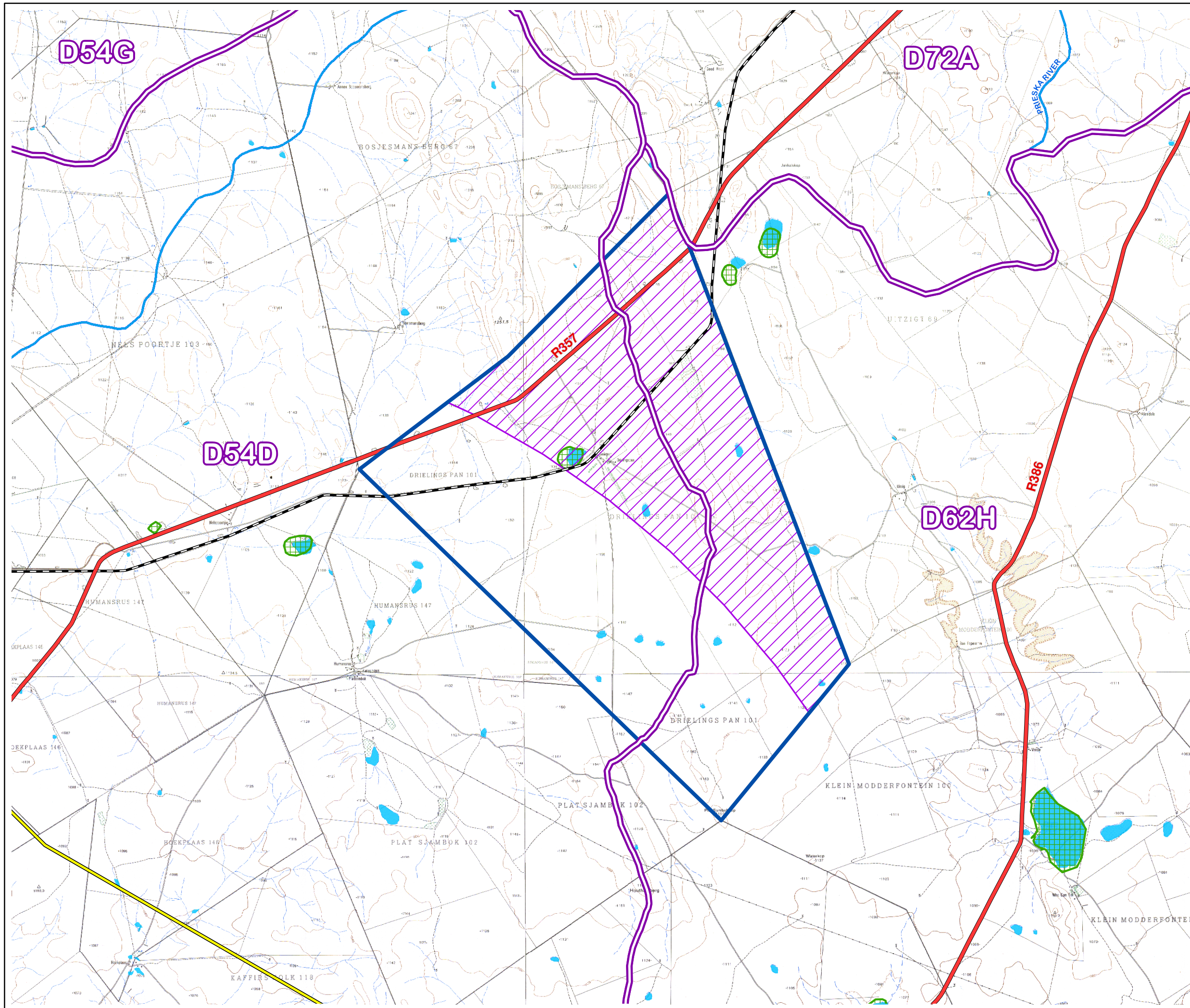


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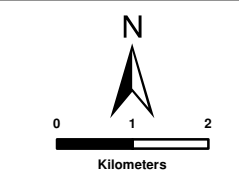
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ALETTA WIND
NEAR COPPERTON
NORTHERN CAPE PROVINCE
SURFACE WATER ASSESSMENT:
DATABASE SURFACE WATER
OCCURRENCE**

- Legend**
- Main Roads
 - Railway Line
 - Existing High Voltage Power Lines (400kV)
 - Existing Substation
 - Application Site
 - Proposed Aletta Wind Development Area
- Surface Water Features**
- Quaternary Catchment Boundaries
 - Catchment Number
 - Rivers
 - Wetlands (NFEPA)
 - Wetlands (ENPAT)

SOURCE:
ESKOM, 2012
BIOTHERM ENERGY, 2015
ENPAT, 2001
NFEPA, 2011






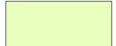



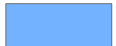

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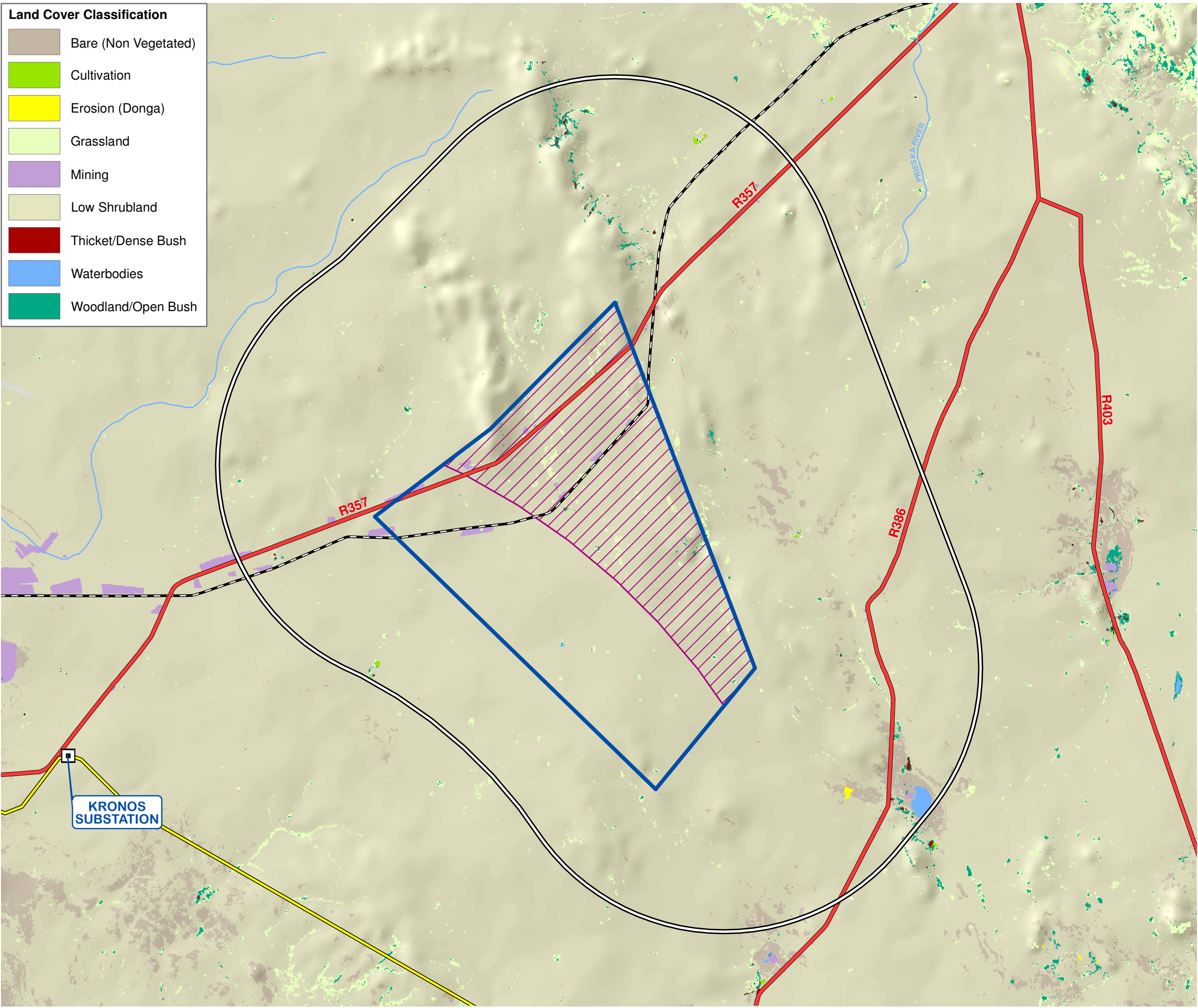
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Land Cover Classification

-  Bare (Non Vegetated)
-  Cultivation
-  Erosion (Donga)
-  Grassland
-  Mining
-  Low Shrubland
-  Thicket/Dense Bush
-  Waterbodies
-  Woodland/Open Bush



**PROPOSED
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ALETTA WIND
NEAR COPPERTON
NORTHERN CAPE PROVINCE
VISUAL ASSESSMENT:
BROAD LAND COVER
CLASSIFICATION**

Legend

-  Main Roads
-  Railway Line
-  Existing High Voltage Power Lines (400kV)
-  Main Rivers/Water Courses
-  Existing Substation
-  Application Site
-  Proposed Aletta Wind Development Area
-  8km Visual Assessment Zone

SOURCE:
ESKOM, 2012
BIOTHERM ENERGY, 2015
2013-2014 SA NATIONAL LAND COVER
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Zones of Potential Visual Impact

- Very High Impact (<500m)
- High Impact (501m - 2km)
- Moderate Impact (2.1 - 5km)
- Low Impact (5.1 - 8km)

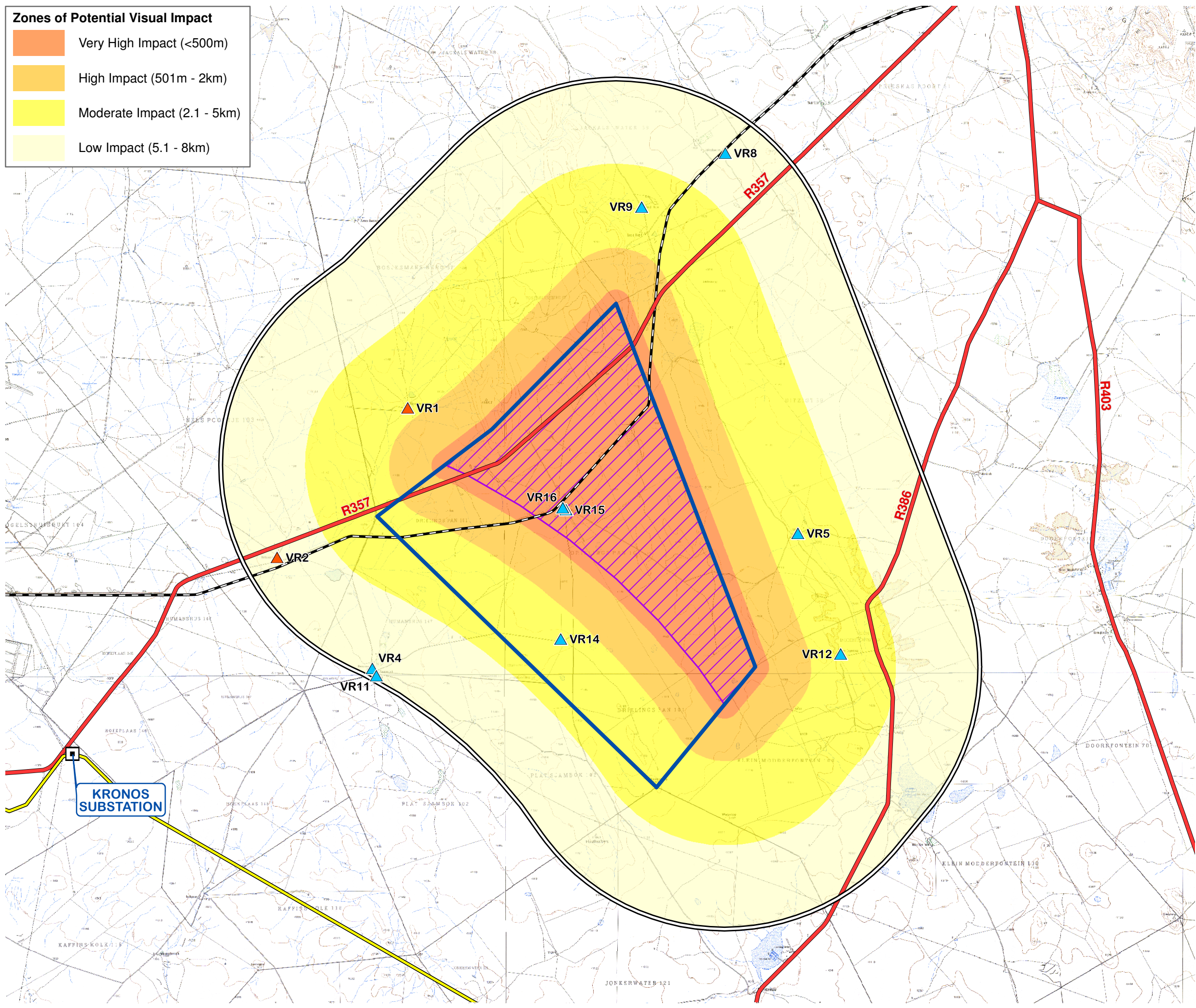
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ALETTA WIND
NEAR COPPERTON
NORTHERN CAPE PROVINCE
VISUAL ASSESSMENT:
POTENTIALLY SENSITIVE
VISUAL RECEPTOR LOCATIONS**

Legend

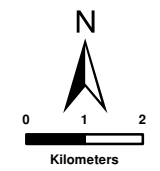
- Main Roads
- Railway Line
- Existing High Voltage Power Lines (400kV)
- Existing Substation
- Application Site
- Proposed Aletta Wind Development Area
- 8km Visual Assessment Zone

Potentially Sensitive Receptor Locations

- Sensitive Receptors
- Potentially Sensitive Receptors



SOURCE:
ESKOM, 2012
BIOTHERM ENERGY, 2015



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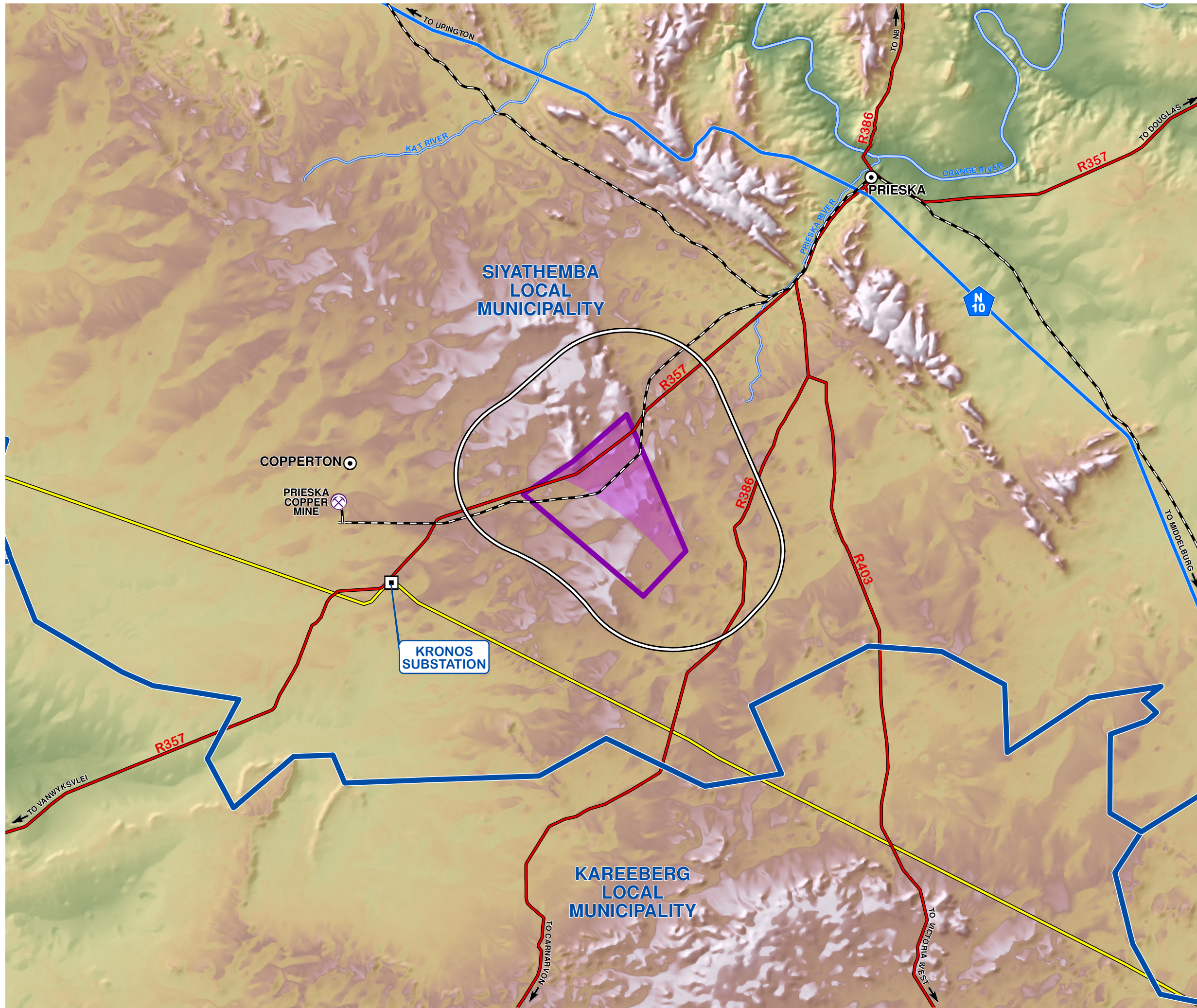
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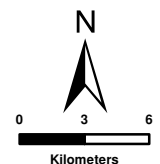
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140MW WIND ENERGY
FACILITY
ALETTA WIND
NEAR COPPERTON
NORTHERN CAPE PROVINCE
VISUAL ASSESSMENT:
REGIONAL CONTEXT**



Legend

-  Local Municipal Boundaries
-  National Route (N10)
-  Main Roads
-  Railway Line
-  Existing High Voltage Power Lines (400kV)
-  Main Rivers
-  Main Towns
-  Kronos MTS Substation
-  Application Site
-  Proposed Aletta Wind Development Area
-  8km Visual Assessment Zone

SOURCE:
BIOTHERM ENERGY, 2015
ESKOM, 2012
MUNICIPAL DEMARCATION BOARD, 2011
NFEPA, 2011
NGI, 2014



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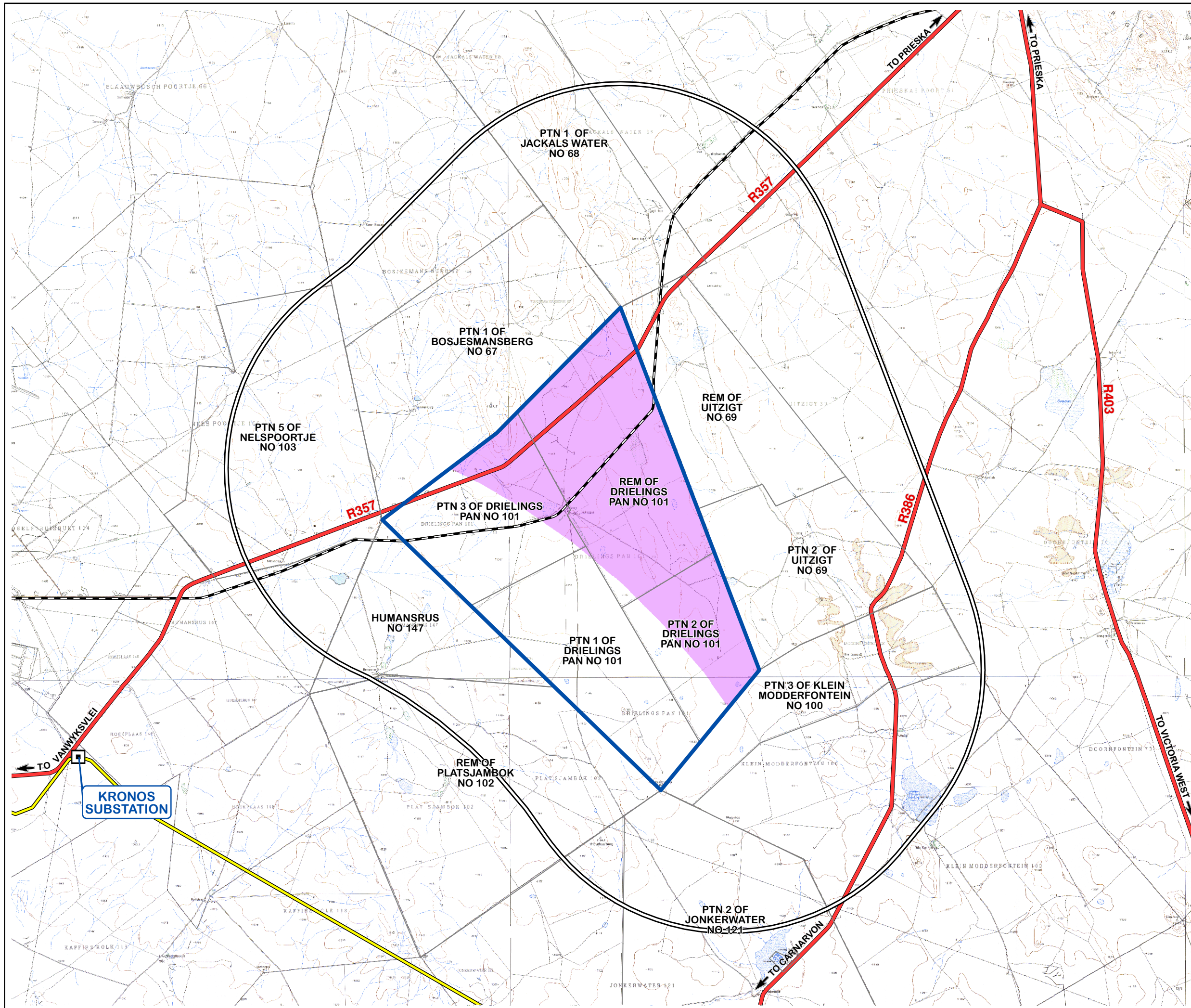
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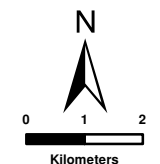
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ALETTA WIND
NEAR COPPERTON
NORTHERN CAPE PROVINCE
VISUAL ASSESSMENT:
SITE LOCALITY**

Legend

-  Main Roads
-  Railway Line
-  Existing High Voltage Power Lines (400kV)
-  Existing Substation
-  Adjoining Farm Boundaries
-  Application Site
-  Proposed Aletta Wind Development Area
-  8km Visual Assessment Zone



SOURCE:
ESKOM, 2012
BIOTHERM ENERGY, 2015

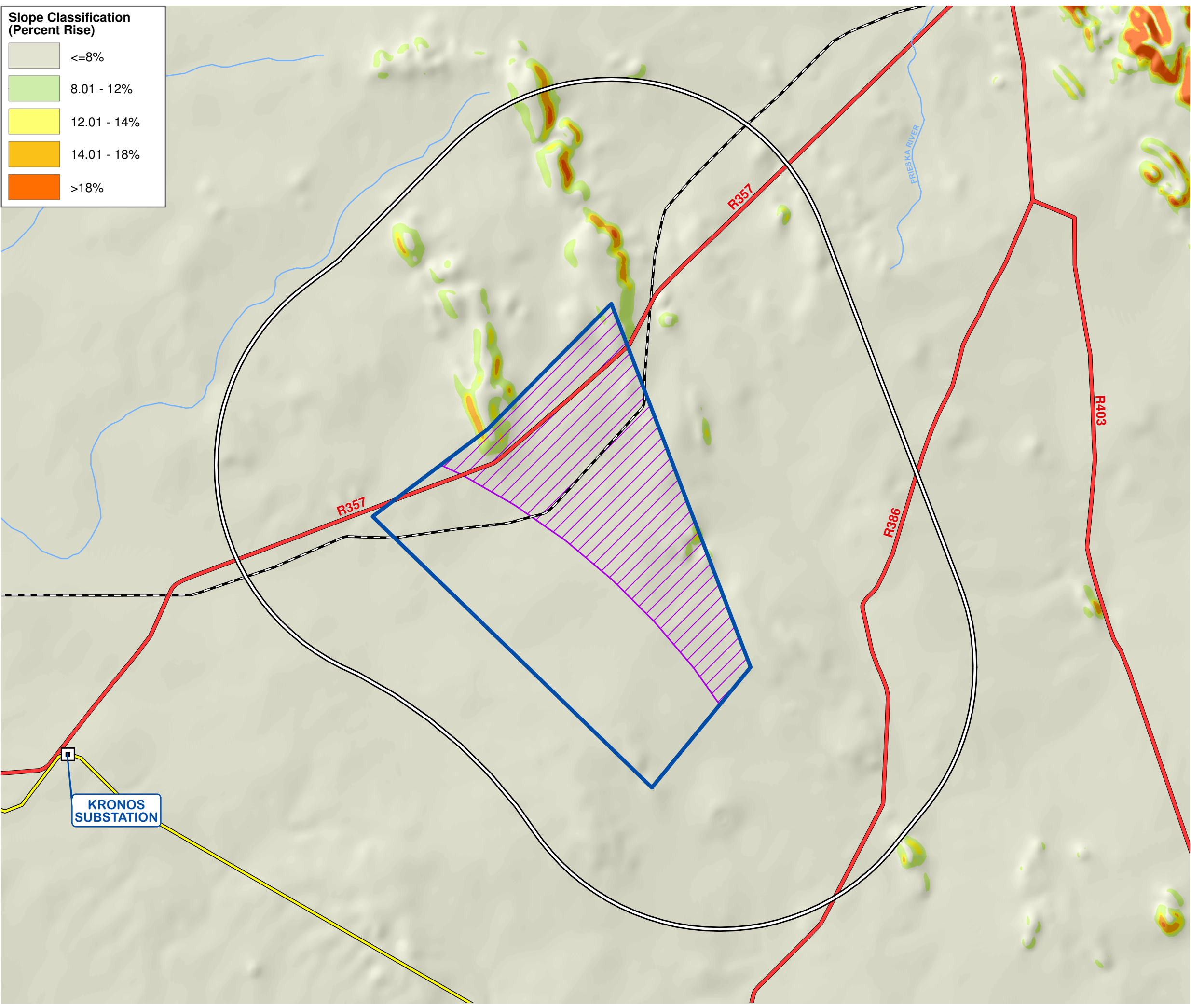
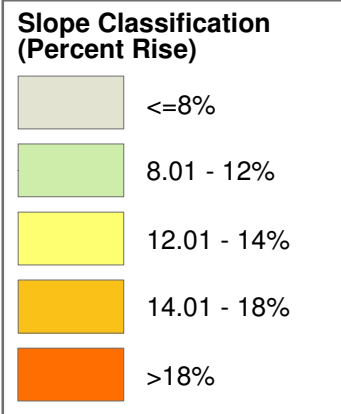


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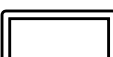
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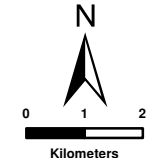
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**PROPOSED
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140MW WIND ENERGY
FACILITY
ALETTA WIND
NEAR COPPERTON
NORTHERN CAPE PROVINCE
VISUAL ASSESSMENT:
SLOPE CLASSIFICATION**

- Legend**
-  Main Roads
 -  Railway Line
 -  Existing High Voltage Power Lines (400kV)
 -  Main Rivers/Water Courses
 -  Existing Substation
 -  Application Site
 -  Proposed Aletta Wind Development Area
 -  8km Visual Assessment Zone

SOURCE:
ESKOM, 2012
BIOTHERM ENERGY, 2015
NGI, 2014

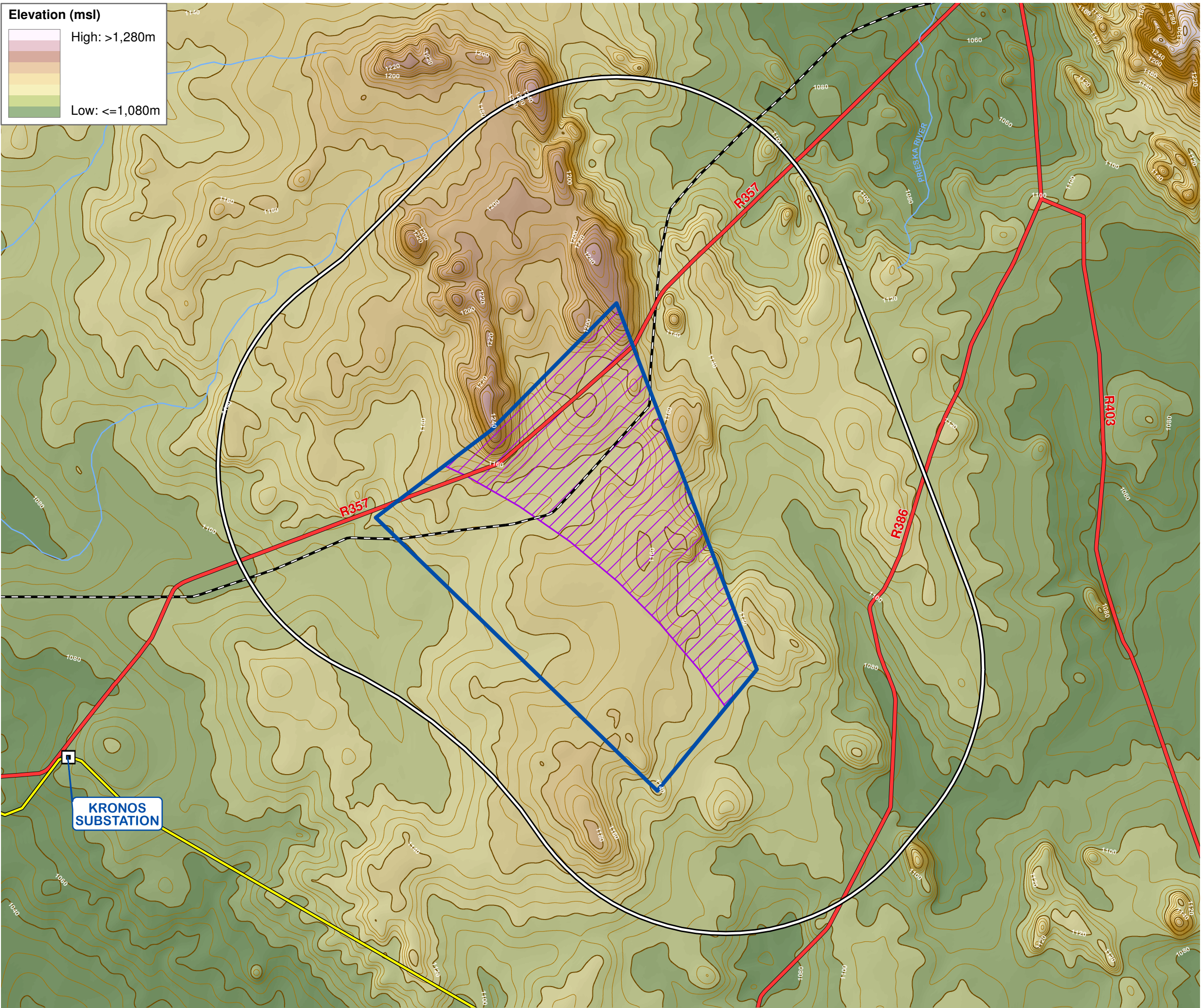
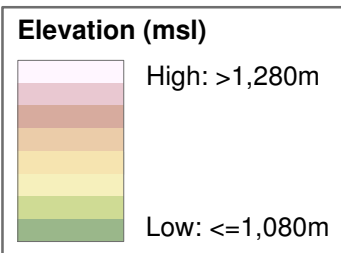


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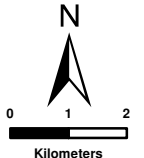
**PROPOSED
CONSTRUCTION OF A
140MW WIND ENERGY
FACILITY**

**ALETTA WIND
NEAR COPPERTON
NORTHERN CAPE PROVINCE**

**VISUAL ASSESSMENT:
TOPOGRAPHY**

- Legend**
- Main Roads
 - Railway Line
 - Existing High Voltage Power Lines (400kV)
 - Main Rivers/Water Courses
 - Contours (20m Interval)
 - Contours (5m Interval)
 - Existing Substation
 - Application Site
 - Proposed Aletta Wind Development Area
 - 8km Visual Assessment Zone

SOURCE:
ESKOM, 2012
BIOTHERM ENERGY, 2015
NGI, 2014



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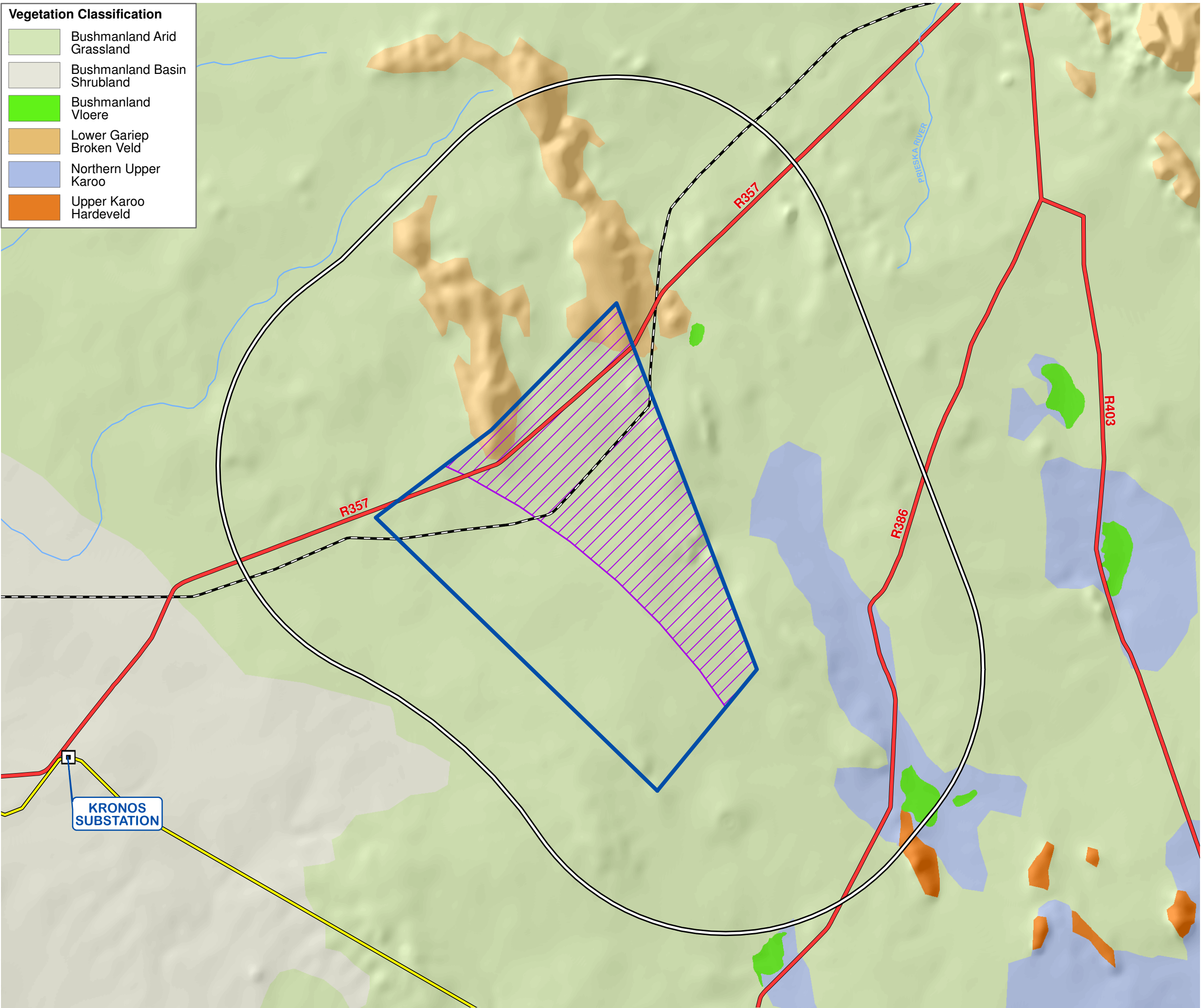
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Vegetation Classification

- Bushmanland Arid Grassland
- Bushmanland Basin Shrubland
- Bushmanland Vloere
- Lower Gariep Broken Veld
- Northern Upper Karoo
- Upper Karoo Hardeveld

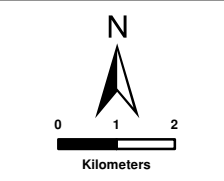


**PROPOSED
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FACILITY
ALETTA WIND
NEAR COPPERTON
NORTHERN CAPE PROVINCE
VISUAL ASSESSMENT:
VEGETATION CLASSIFICATION**

Legend

- Main Roads
- Railway Line
- Existing High Voltage Power Lines (400kV)
- Main Rivers/Water Courses
- Existing Substation
- Application Site
- Proposed Aletta Wind Development Area
- 8km Visual Assessment Zone

SOURCE:
ESKOM, 2012
BIOTHERM ENERGY, 2015
SANBI, 2009



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