

Meeting Record

Project number	113087	Meeting date	18 November 2016
Project name	Namakwa 300MW combined solar technology facility EIA	Recorded by	PR
Meeting/subject	Pre-Application meeting with DEA	Total pages	3

Present	Apology	Copy	Name	Organisation	Contact details
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Kirsten Jones	Aurecon	kirsten.jones@aurecongroup.com
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Simon Clark	Aurecon	simon.clark@aurecongroup.com
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pearl Rakeepile	Aurecon	pearl.rakeepile@aurecongroup.com
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Jason Cope	Veld Renewables	jcope@veldrenewables.co.za
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mahlatse Shubane	Department of Environmental Affairs	MShubane@environment.gov.za

Item	Topic	Attendee
1	Introductions and Agenda	
	Introductions were made around the table and SC provided a general agenda of the meeting.	SC
2	Project Overview	
	The project overview was provided by JC. Veld has formed a Joint Venture with Nordic. The search for this site was extensive and based on grid capacity and the solar resource. The project is in a REDZ area and the location chosen is from a build and technical standpoint, believed to be a good renewable location with a potential high yield of power.	
	A total of 300MW is proposed being realistic in the context of future capacity. A single 150 MW CSP, and 2 x 75 MW PV arrays are proposed. PV South is proposed adjacent to CSP to share infrastructure. PV North is a standalone facility with a proposed 220 kV powerline, loop in and loop out connection.	JC
	It is recognised that this project would be in advance of the approved REDZ process but the intention is to commence earlier anyway.	
	The proposed layouts of the facilities were discussed.	SC
	MS asked for an elaboration about the consolidated process.	MS
	JC added that the aim is to run things concurrently.	JC
	The aim is to have 3 separate Applications for Environmental Authorisation, therefore 3 separate Scoping Reports, and 3 EIR's, with a shared PPP process.	SC
	JC reiterated that each site would be assessed based on its own merits.	JC
3	Listed Activities	
	The listed activities were broadly discussed.	SC
	JC noted that the amount of thermal storage for the CSP has not yet been determined.	JC
	MS pointed out that at this early stage in the process it would not be a problem, but that the thermal storage capacity should be specified in the EIA. When describing the identified listed activities, the specifications should be provided in terms of the thresholds. For example, the volumes, areas, MW etc should be provided.	MS

Item	Topic	Attendee
	SC queried whether the application and the draft SR can be submitted together for each application. This was agreed by MS.	SC
4	Cumulative Impacts	
	SC asked for confirmation of the 30km radius for assessing cumulative effects. MS confirmed that it a 30km radius was required.	SC
5	Alternatives	
	JC added that the process for evaluation of location alternatives will be written up as a report as various sites were considered. This site was considered to be the best site in Namakwa. In terms of routing, 3 potential water routing alternatives are being considered. One runs south of Aggeney's within the Eskom servitude with the possibility of selling the water to the mine, or possibly purchasing water from the mine as they have an abstraction licence. Alternatively pipe the water from the Orange River via a proposed pipeline. The Department of Water and Sanitation will be consulted from the beginning in this regard.	JC
	It was acknowledged that CSP is a new technology and there are lessons emerging from projects elsewhere. We will be taking these into consideration in the design. For example, it has been found that small animals may get trapped in the holding dams etc and this can be mitigated by design.	JC
	In terms of transmission connection, it was noted that for the southern sites a loop in loop out connection would be proposed. However for Veld PV North a transmission line of approximately 3km would be required. It was queried if this can be included in the same application for PV North.	SC
	It was agreed by MS that the transmission line could be included in the application for Veld PV North.	MS
	JC queried whether the responsibility could be transferred to Eskom, if it should be a separate BA process. But he said that we would assume that Veld would take responsibility for the line in terms of ownership and maintenance.	JC
6	Peer Review	
	SC mentioned that an independent peer review is proposed as Aurecon engineers would be involved in the design of the CSP. However, they are not involved in the two PV applications and therefore no peer review is necessary for these.	SC
	MS was in agreement.	MS
7	Stakeholder Consultation	
	SC presented the list of proposed stakeholders.	SC
	MS stated that Birdlife South Africa must be included.	MS
	SC noted that they had been engaged already through the avifauna specialist Chris van Rooyen.	SC
	KJ asked if PPP meeting would be required as the site is in a remote area. SC added that perhaps the PPP meeting can be advertised and dependent on the I&AP's responses. MS agreed that the meeting should be advertised to provide the opportunity to participate and if there was insufficient interest, it could be considered unnecessary.	KJ
8	Environmental sensitivities of the study area	
	Mapping was provided in the presentation depicting that the site was located in: <ul style="list-style-type: none"> • Important Bird Area (IBA) • National Protected Area Expansion Strategy (NPAES) focus area; • Critical Biodiversity Area (CBA) and Ecological Support Area (ESA); and • An ephemeral National Freshwater Ecosystem Priority Areas (NFEPAs) river (the Veld PV South site). 	SC
	The environmental sensitivity identification and the Namakwa DM Biodiversity summary was discussed.	SC

Item	Topic	Attendee
9	Proposed Specialist Studies	
	<p>The proposed specialist studies was provided as follows:</p> <ul style="list-style-type: none"> • Agricultural Impact Assessment; • Aquatic Ecology Impact Assessment; • Avifauna Impact Assessment (including monitoring); • Botanical/ Ecological Impact Assessment; • Heritage Impact Assessment (including archaeology); • Palaeontology comment/assessment; • Stormwater Management Assessment; • Visual Impact Assessment; and • Socio-economic Assessment. 	SC
	MS stated that he could not comment as he was unfamiliar with the site.	MS
	JC added that the socio-economic study which is often separate had been included in the studies as they anticipate about 60 staff members to work on the sites and it is intended to recruit members from the local communities where possible, so that there are local benefits.	MS
	<p>SC noted that the Draft avifauna guidelines for solar are being considered even though they aren't approved officially. This requires 4 seasons of monitoring. They are more relevant to CSP than PV due to the nature of the potential impacts. The guidelines are however not finalised yet.</p> <p>Note: Subsequent to the meeting it has been confirmed that trough technology requires only 6 months of monitoring as it falls within regime 2 of the draft guidelines.</p>	SC
	JC queried the legal status of the guidelines and whether they apply if still in draft form.	JC
	MS recommended that they should be followed.	MS
	SC confirmed that input was being sought from BirdLife SA and we would work closely with them.	SC
10	Schedule	
	The schedule was proposed and it was noted that the application would be submitted either this year or early 2017.	SC
11	DEA Questions or Inputs	
	MS had no further questions or inputs. Meeting closed.	MS

**PROPOSED NAMAKWA SOLAR FARM, CONSISTING OF
150 MW OF CONCENTRATED SOLAR POWER, AND TWO
75 MW OF PHOTOVOLTAIC SOLAR POWER, NAMAKWA,
NORTHERN CAPE**

Pre-application Meeting DEA: 18 November 2016



Agenda

- Introductions
- Project Overview
- Scoping Process Requirements
- EIA Process Requirements
- Listed Activities
- PPP and Stakeholder Consultation
- Specialist Studies
- Indicative Project Schedule
- DEA Comments and Requirements

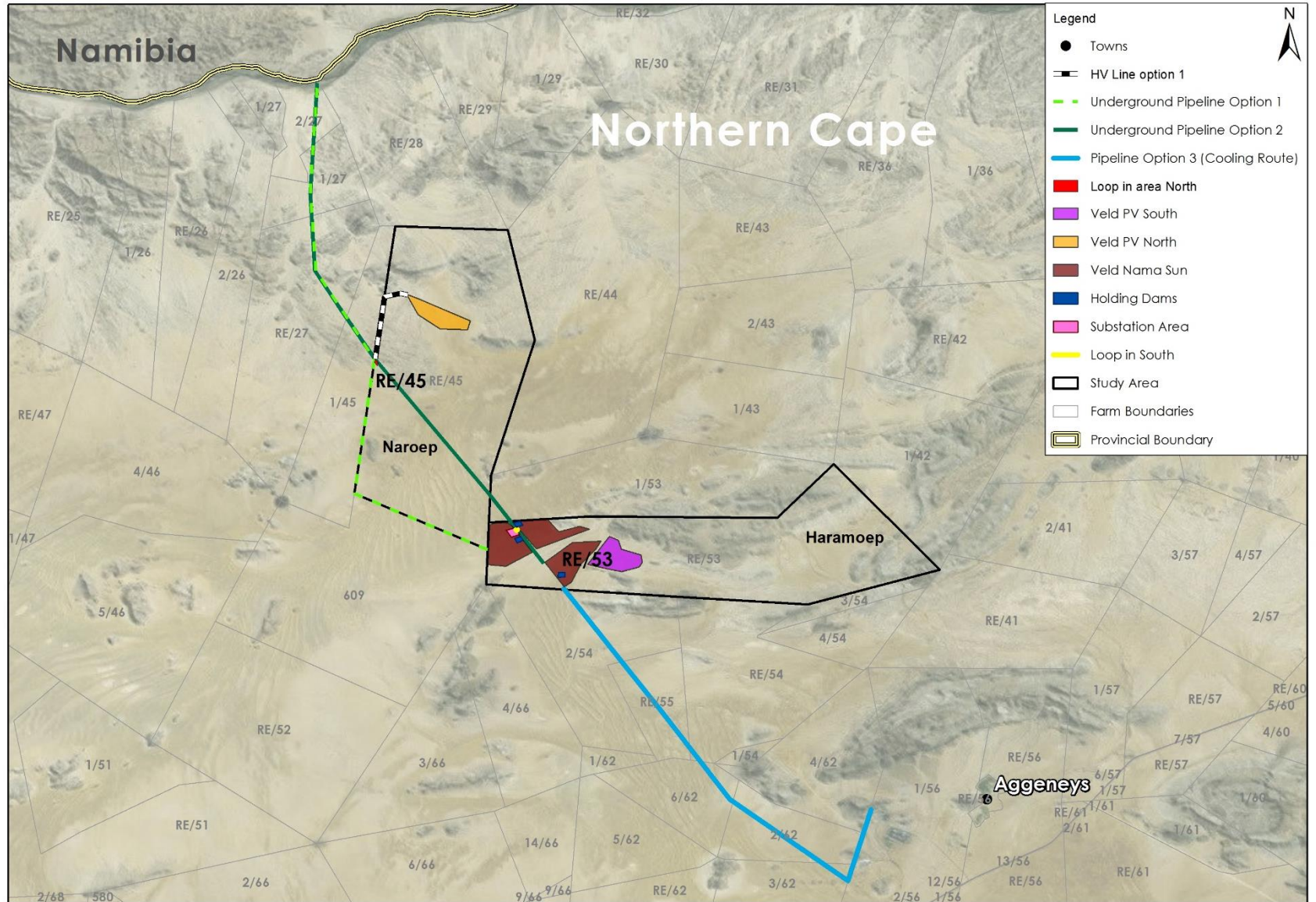
Project Overview

Veld Solar One (Pty) Ltd (Veld) proposes developing three solar sites approximately 20 km north-west of Aggeneys in the Northern Cape. The development has been designed with the intention that the facilities would make up a consolidated solar development and would utilise shared infrastructure where possible to minimise their overall footprint. The sites fall within the Draft Phase 1 Springbok Renewable Energy Development Zone (REDZ). The solar farm would consist of a 150 MW Concentrated Solar Power Facility and two Photovoltaic (PV) Facilities of 75 MW .

Solar Farm Name	MW	Farm Name	Farm Number	SG 21 Digit Code
Veld PV North	75 MW	NAROEP	45	C053000000000045000
Veld PV South	75 MW	HARAMOEP	RE/53	C0530000000000530000
Veld Nama Sun (CSP)	150 MW	HARAMOEP	RE/53	C0530000000000530000



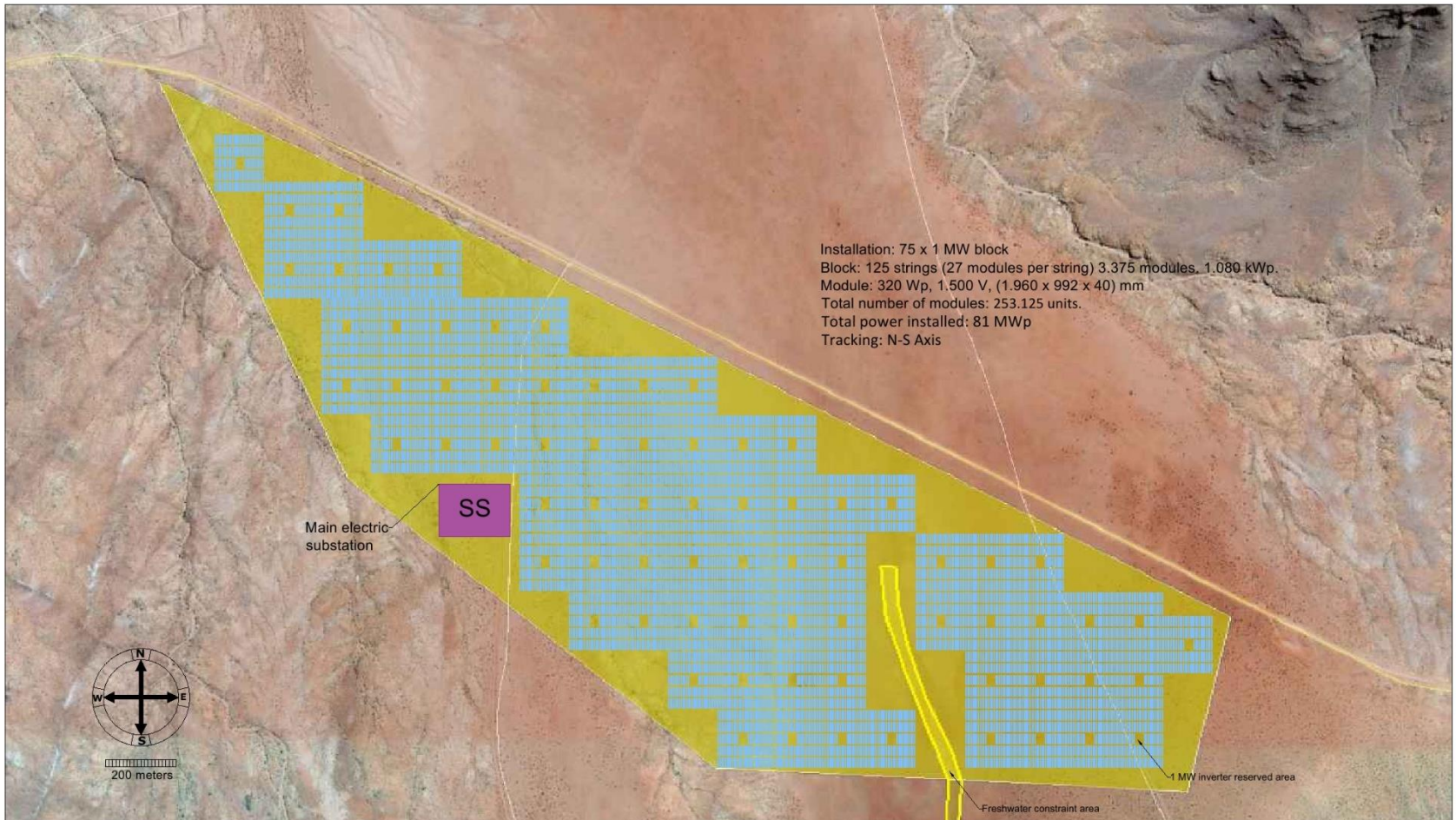
Proposed Location



Proposed PV Solar Farms (2 x 75 MW)

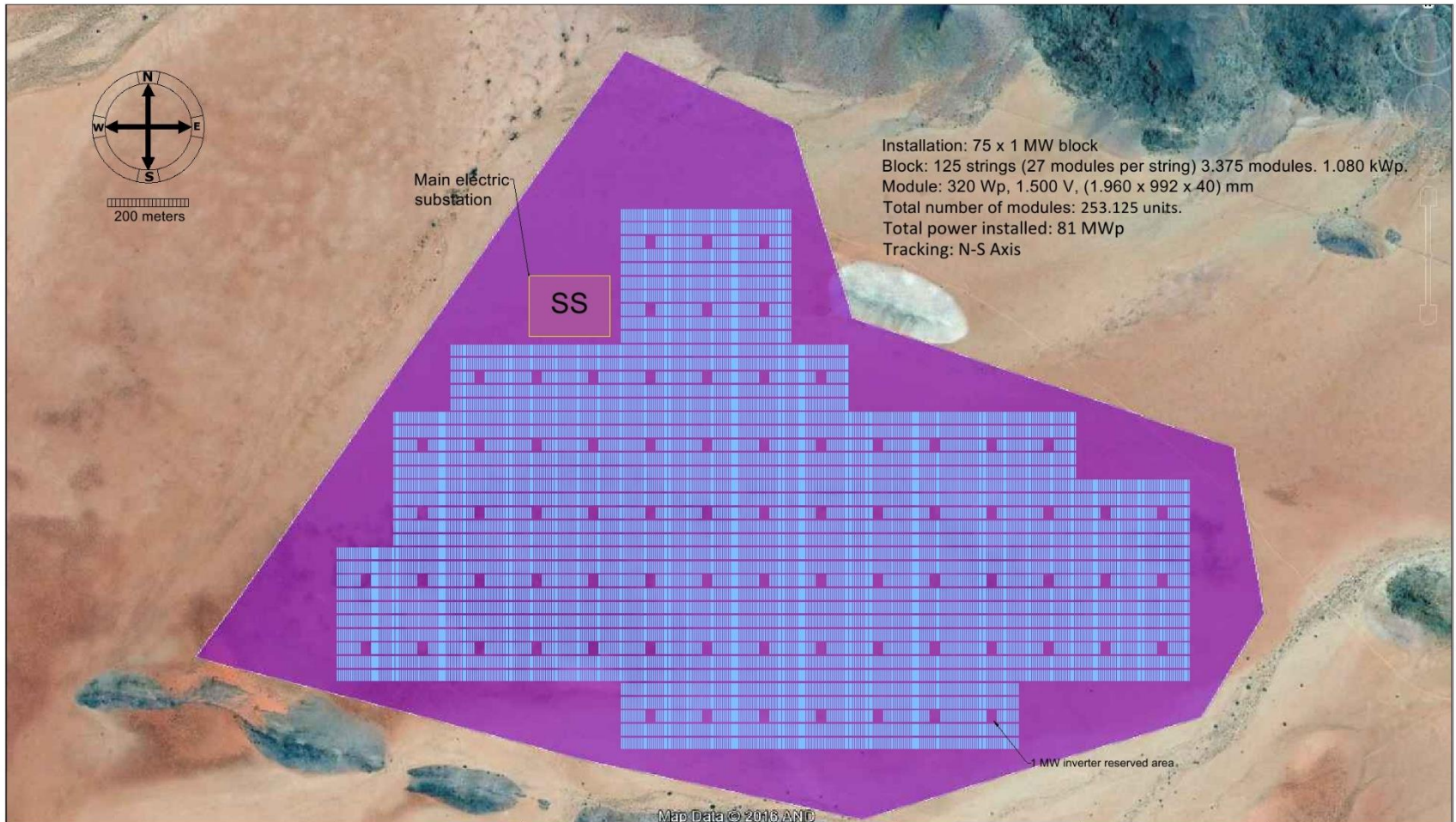
- A **photovoltaic component**, comprising numerous rows of PV modules mounted on steel fixed or tracking mounts and footings (concrete or driven into the ground) with associated support infrastructure to generate two times 75 Mw_{ac} ~280 ha per farm;
- **On-site substations**, including;
 - **Inverters**, to convert the direct current (DC) generated by the PV modules into alternating current (AC);
 - **Transformers**, to step up the 33 kV power generated by the inverters to 132 kV to connect to existing 132 kV overhead transmission lines;
- **Underground cabling** to connect the PV modules to the on-site substation and inverters;
- **Internal access roads** for servicing and maintenance of the site;
- **External access roads** from the N14 to gain access to the PV facility;
- **Access control gates** and guardhouses;
- **Stormwater infrastructure**;
- **Water supply**;
- **Laydown area** for use during construction;
- **Central control building**;
- **Conservancy tank** for storage of sewage;
- **Weather stations** within the site and along the fenced perimeter of the site; and
- Perimeter and internal **fencing**.

Proposed Layout – Veld PV North



<p>ENGINEERING:</p>  <p>zepsilon solutions energia renovables</p> <p>Antonio Arcas Gay Industrial Engineer COIICV 4758</p>	<p>PROMOTERS:</p>  	<p>PROJECT:</p> <p>AGGENEYS 75 MW PHOTOVOLTAIC INSTALLATION</p>	<p>LOCATION:</p> <p>Aggeneys South Africa</p> <p>Coordinates: Latitude: 29° 07'12" S Longitude: 18° 36' 30" E</p>	<p>DRAWING:</p> <p>Preliminary layout 4</p> <p>DRAWN BY: L.T.R.</p> <p>CHECKED BY: A.A.G.</p>	<p>CHECK DATE:</p> <p>OCTOBER - 2016</p> <p>DATE:</p> <p>OCTOBER - 2016</p> <p>SCALE: N/A</p> <p>SIZE: A-3</p>	<p>SHEET N°:</p> <p>1-3</p>
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Proposed Layout – Veld PV South



<p>ENGINEERING:</p>  <p>Antonio Arcas Gay Industrial Engineer COIICV 4758</p>	<p>PROMOTERS:</p>  	<p>PROJECT:</p> <p>AGGENEYS 75 MW PHOTOVOLTAIC INSTALLATION</p>	<p>LOCATION:</p> <p>Aggeneys South Africa</p> <p>Coordinates: Latitude: 29° 07'12" S Longitude: 18° 36' 30" E</p>	<p>DRAWING:</p> <p>Preliminary layout 3</p> <p>DRAWN BY: L.T.R.</p> <p>CHECKED BY: A.A.G.</p>	<p>CHECK DATE:</p> <p>OCTOBER - 2016</p> <p>DATE:</p> <p>OCTOBER - 2016</p> <p>SCALE: N/A</p> <p>SIZE: A-3</p>	<p>SHEET N°:</p> <p>1-3</p>
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Proposed CSP Farm (150 MW)

- **CSP** component consisting of 3 Power Blocks ~ 500 ha;
- **Thermal storage tanks** required for up to 12 hours of capacity;
- **On-site substations**, including;
 - **Inverters**, to convert the direct current (DC) generated by the CSP into alternating current (AC);
 - **Transformers**, to step up the 33 kV power generated by the inverters to 132 kV to connect to existing 132 kV overhead transmission lines;
- **Underground cabling** to connect the CSP modules to the on-site substation and inverters;
- **Internal access roads** for servicing and maintenance of the site;
- **External access roads** from the N14 to gain access to the solar facility;
- **Access control gates** and guardhouses;
- **Stormwater infrastructure**;
- **Water supply and cooling pipeline and associated infrastructure**;
- **Laydown area** for use during construction;
- **Central control building**;
- **Conservancy tank** for storage of sewage;
- **Weather stations** within the site and along the fenced perimeter of the site; and
- Perimeter and internal **fencing**.

Listed Activities in Terms of NEMA GN No. 983, 984 and 985, 8 Dec 2014

NO.	LISTED ACTIVITY	ASPECT OF PROJECT
GN R983, 8 December 2014 – LISTING NOTICE 1		
11	The development of facilities or infrastructure for the transmission and distribution of electricity – (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kV;	An on-site collector substation will be required for the Veld PV South and Veld PV North sites. Panels will be linked to each other and the on-site substation via overhead and/or subterranean medium voltage cables (~33 kV).
12	The development of – (x) buildings exceeding 100 m ² in size; (xii) infrastructure or structures with a physical footprint of 100 m ² or more; Where such development occurs – (a) within a watercourse; (c) if no development setback exists, within 32 m of a water course, measured from the edge of a watercourse; -	Drainage lines are likely to be scattered across the proposed site and one or more roads and or other infrastructure is likely to cross these lines or be within 32 m thereof.
13	The development of facilities or infrastructure for the off-stream storage of water, including dams and reservoirs, with a combined capacity of 50,000 cubic metres or more, unless such storage falls within the ambit of activity 16 in Listing Notice 2 of 2014.	The CSP farm will require raw water and waste water storage ponds.
14	The development of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.	A utility scale thermal storage facility contains Heat Transfer Fluid (HTF) in excess of 80 cubic metres. This activity will thus be triggered for the CSP facility only.
19	The infilling or depositing of any material of more than 5 m ³ into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 m ³ from - (i) a watercourse;	The infilling or depositing of any material of more than 5 m ³ into a watercourse may be triggered with the construction of internal service roads or cables across drainage lines.

Listed Activities in Terms of NEMA GN No. 983, 984 and 985, 8 Dec 2014

NO.	LISTED ACTIVITY	ASPECT OF PROJECT
GN R983, 8 December 2014 – LISTING NOTICE 1		
24	The development of - (ii) a road with a reserve wider than 13.5 metres, or where no reserve exists where the road is wider than 8 metres;	Permanent roads of sufficient width (~8 m) for delivery and construction vehicles may be required for the proposed solar farm.
25	The development and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage with a daily throughput capacity of more than 2,000 m ³ but less than 15,000 m ³	Evaporation ponds for the recycling of contaminated water would need to be constructed.
28	Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture or afforestation on or after 1 April 1998 and where such development: (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 ha.	The proposed farm on which the project is proposed is still being used for livestock grazing (mostly sheep) and the development footprint is greater than 1 ha.
56	The widening of a road by more than 6 m, or lengthening of a road by more than 1 km – (ii) where no reserve exists, where the existing road is wider than 8 m.	Access roads of approximately 6-10 m in width would be required to develop the proposed solar farm and in combination would exceed 1 km. Existing roads would be used as far as practically possible and feasible, but would likely require widening by more than 6 m.

Listed Activities in Terms of NEMA GN No. 983, 984 and 985, 8 Dec 2014

NO.	LISTED ACTIVITY	ASPECT OF PROJECT
GN R984, 8 December 2014 - LISTING NOTICE 2		
1	The development of facilities or infrastructure for the generation of electricity from a renewable resource where the electricity output is 20 MW or more, excluding where such development of facilities or infrastructure is for photovoltaic installations and occurs within an urban area.	Veld PV South will have a generation capacity of 75 MW. Veld PV North will have a generation capacity of 75 MW. Veld Nama Sun will have a generation capacity of 150 MW.
4	The development of facilities or infrastructure, for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of more than 500 cubic metres.	A thermal storage facility contains HTF in excess of 500 cubic metres. This activity will thus be triggered. This activity will thus be triggered for the CSP facility only.
6	The development of facilities or infrastructure for any process or activity which requires a permit or license in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent, excluding— (i) activities which are identified and included in Listing Notice 1 of 2014; (ii) activities which are included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the National Environmental Management: Waste Act, 2008 applies; or (iii) the development of facilities or infrastructure for the treatment of effluent, wastewater or sewage where such	The CSP farm will possibly require a boiler with a size bigger than 50 MW that triggers the requirement for an Air Emissions License.
15	The clearance of an area of 20 hectares or more of indigenous vegetation.	Physical alteration of undeveloped land for industrial use would take place. The total area to be transformed is: ~280 ha for Veld PV South ~280 ha for Veld PV North ~ 500 ha for Veld Nama Sun
16	The development of a dam where the highest part of the dam wall, as measured from the outside toe of the wall to the highest part of the wall, is 5 m or higher or where the high-water mark of the dam covers an area of 10 ha or more.	The CSP will require water storage dams with a wall in excess of 5 metres in height. Furthermore the CSP may require waste storage facilities which may be in excess of 10 hectares collectively.

Listed Activities in Terms of NEMA GN No. 983, 984 and 985, 8 Dec 2014

NO.	LISTED ACTIVITY	ASPECT OF PROJECT
GN R985, 8 December 2014 - LISTING NOTICE 3		
2	<p>The development of reservoirs for bulk water supply with a capacity of more than 250 cubic metres.</p> <p>(a) In Free State, Limpopo, Mpumalanga and Northern Cape provinces:</p> <p>iii. Outside urban areas, in:</p> <p>(aa) National Protected Area Expansion Strategy Focus areas;</p> <p><u>(bb) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;</u></p> <p>(dd) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</p>	<p>The CSP will require water and waste water storage dams in excess of 250 m³.</p>
4	<p>The development of a road wider than 4 metres with a reserve less than 13,5 metres.</p> <p>(a) In Free State, Limpopo, Mpumalanga and Northern Cape provinces:</p> <p>ii. Outside urban areas, in:</p> <p>(bb) National Protected Area Expansion Strategy Focus areas;</p> <p><u>(cc) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;</u></p> <p>(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans.</p>	<p>The construction of a road wider than 4 m with a reserve less than 13.5 m (no reserve) might be required outside the urban area and within an area containing indigenous vegetation.</p>

Listed Activities in Terms of NEMA GN No. 983, 984 and 985, 8 Dec 2014

NO.	LISTED ACTIVITY	ASPECT OF PROJECT
GN R985, 8 December 2014 - LISTING NOTICE 3		
10	<p>The development of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres.</p> <p>(a) In Free State, Mpumalanga and Northern Cape provinces:</p> <p>ii. Outside urban areas, in:</p> <p>(bb) National Protected Area Expansion Strategy Focus areas;</p> <p><u>(cc) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;</u></p> <p>(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</p> <p>(ii) Areas on the watercourse side of the development setback line or within 100 metres from the edge of a watercourse where no such setback line has been determined.</p>	<p>The thermal storage facility contains HTF in excess of 500 cubic metres. This activity will thus be triggered.</p>
12	<p>The clearance of an area of 300 square metres (m²) or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</p> <p>(d) In Northern Cape:</p> <p>(ii) Within critical biodiversity areas as identified in bioregional plans;</p>	<p>The clearance of more than 300 m² of indigenous vegetation will likely be required for the solar farm.</p>

EIA Applications

- Three EIA applications in one EIA process
 - One CSP and two PV Solar farms; and
 - Associated infrastructure.



- Shared PPP (notices, adverts, meetings etc)

Cumulative Impacts

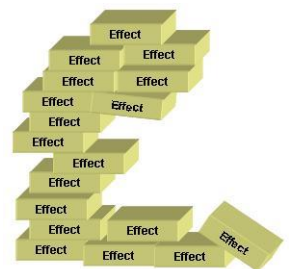
Cumulative effects are commonly understood to be impacts from different projects that combine to result in significant change, which could be larger than the sum of all the individual impacts. The assessment of cumulative effects therefore will be considered for all renewable energy developments (wind and solar) within a 30km radius of the proposed site.

Developments that would be considered here include:

- Developments undergoing an Environmental Impact Assessment process;
- Developments which have received Environmental Authorisation; and
- Developments under construction.

Cumulative scenarios would include:

- Assessing the three solar farms as one development and assessing surrounding developments; and
- Assessing each solar farm individually and surrounding developments.



Feasible and Reasonable Alternatives

The Scoping Phase will screen alternatives to derive a list of feasible alternatives which will be assessed in detail in the EIA Phase. The following types of alternatives will be considered to be the most pertinent to the proposed projects:

- **Location alternatives:** Alternative locations for the entire projects proposal or for components of the projects proposal.
- **Activity (type) alternatives:** Requires a change in the nature of the proposed activity.
- **Layout alternatives:** Site layout alternatives in terms of scale and magnitude.
- **Routing alternatives:** Pipelines and transmission lines (Separate BAR TBC by Eskom).
- **Technology alternatives:** Consideration of different types of technology used.
- **No-Go Alternative:** Consideration of not developing the projects.



Independent Peer Review

- Aurecon Engineers have been appointed to provide technical consulting services on the proposed CSP solar farm.
- The promulgation of the 2014 NEMA Regulations on 8 December 2014 provides the opportunity for “in-house” Engineers and EAPs to work together on projects, provided that a second independent EAP is employed by the Proponent to review the work in terms of independence.
- An independent peer review will be undertaken.
- Peer review of the two 75 MW PV solar farms will not be required as the design team has no affiliation with Aurecon.

Stakeholder Consultation

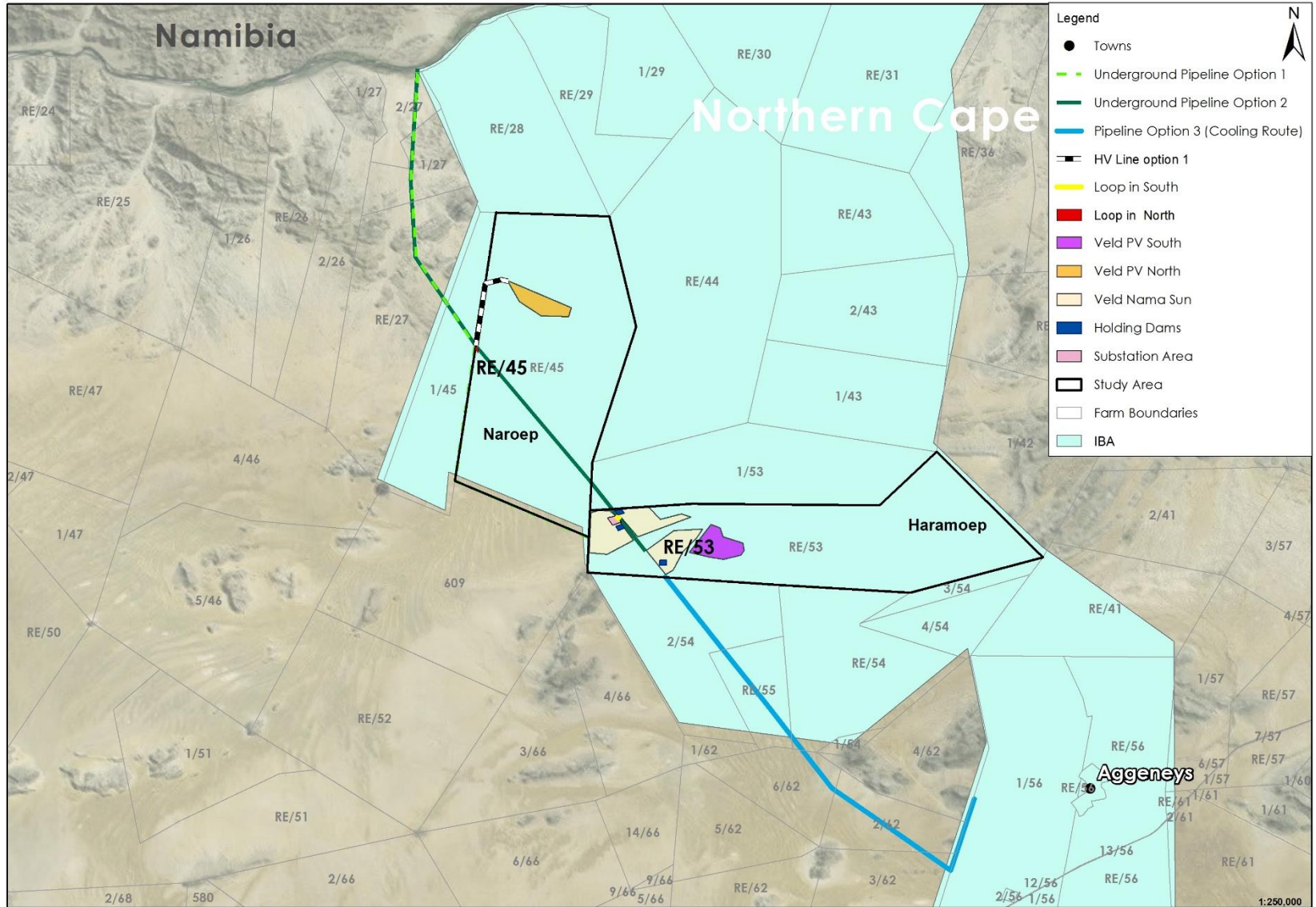
- Department of **Agriculture**;
- Department of **Energy**;
- Department of **Mineral Resources**;
- Northern Cape Department of **Environmental Affairs and Nature Conservation**;
- **Eskom**;
- Department of **Water and Sanitation**;
- Provincial and District **Roads** Departments;
- **South African Heritage** Resources Agency;
- **Northern Cape Heritage** Authority (Ngwao Boswa Kapa Bokone);
- Other **national/provincial departments** where deemed necessary;
- Square Kilometre Array (**SKA**) South Africa; and
- **Local government authorities**, including the **Namakwa** District Municipality; Khai-Ma and Nama Khoi Local Municipalities.

Preliminary Environmental Sensitivity Identification

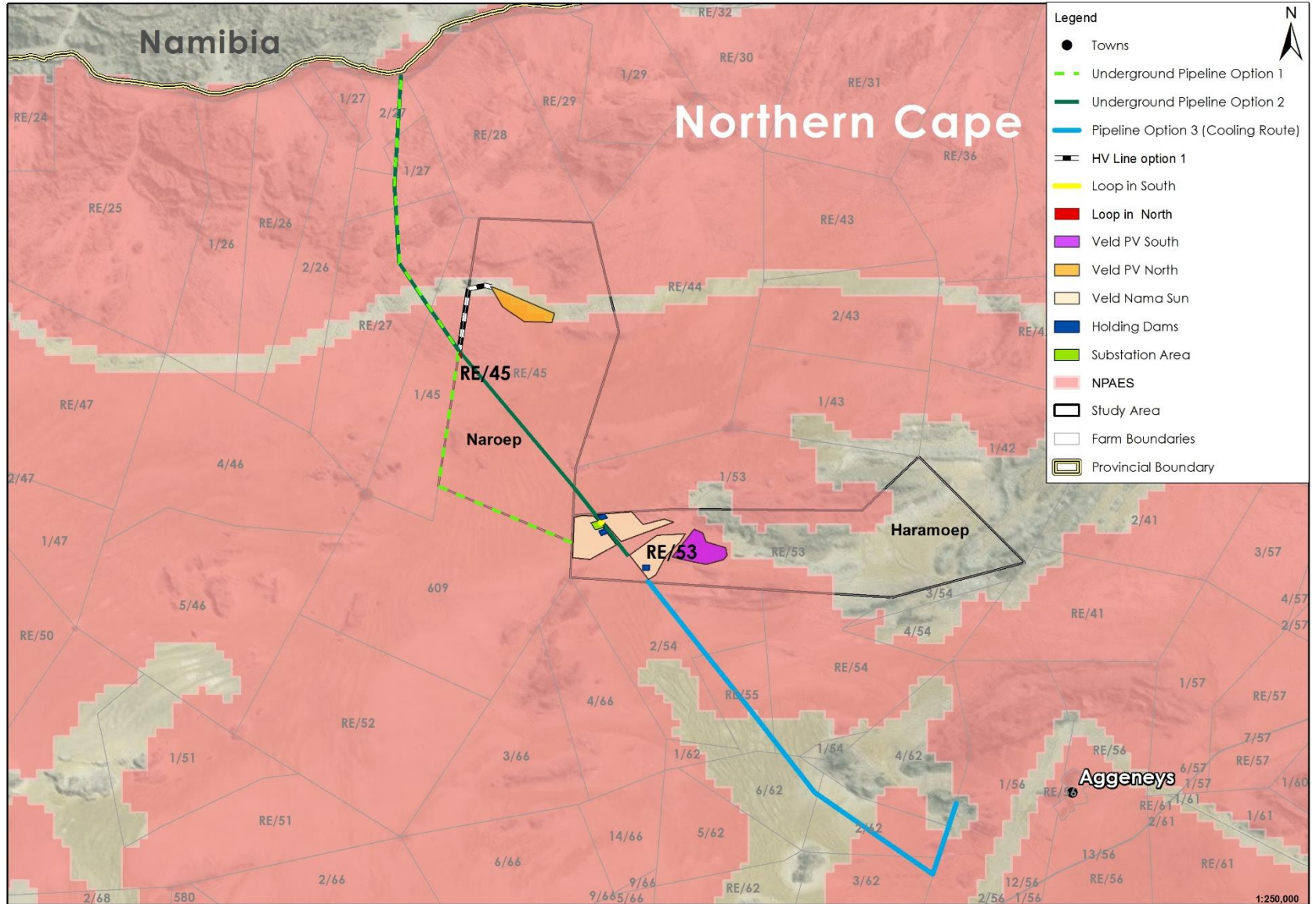
The site falls within the following:

- The Mattheus-Gat Conservation Area (proposed), **Important Bird Area (IBA)**
- The Kamiesberg Bushmanland Augrabies **National Protected Area Expansion Strategy (NPAES) focus area**
- **A Critical Biodiversity Area (CBA):**
 - CBA T2 – areas in the terrestrial environment identified by experts as being important for biodiversity; and
 - CBA LOR (A2) - as a near natural important aquatic habitat in the lower Orange River
- The site also falls in an **Ecological Support Area (ESA):**
 - ESA T – a whole landscape-level biodiversity corridor network aimed at retaining connectivity between all geographic areas in the district and nationally
- An ephemeral **National Freshwater Ecosystem Priority Areas (NFEPA) river** traverses the Veld PV South site

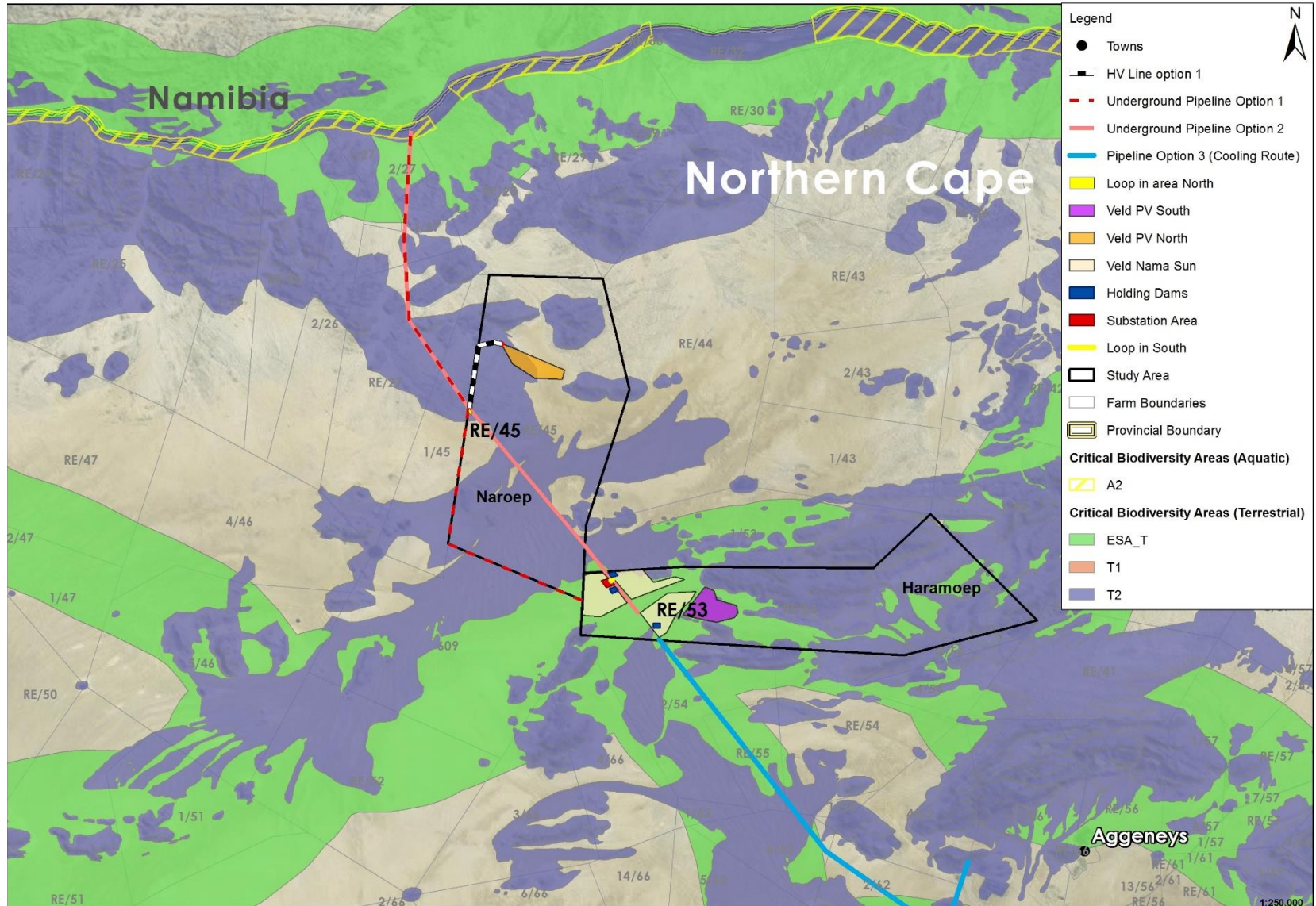
Preliminary Environmental Sensitivity Identification – IBA



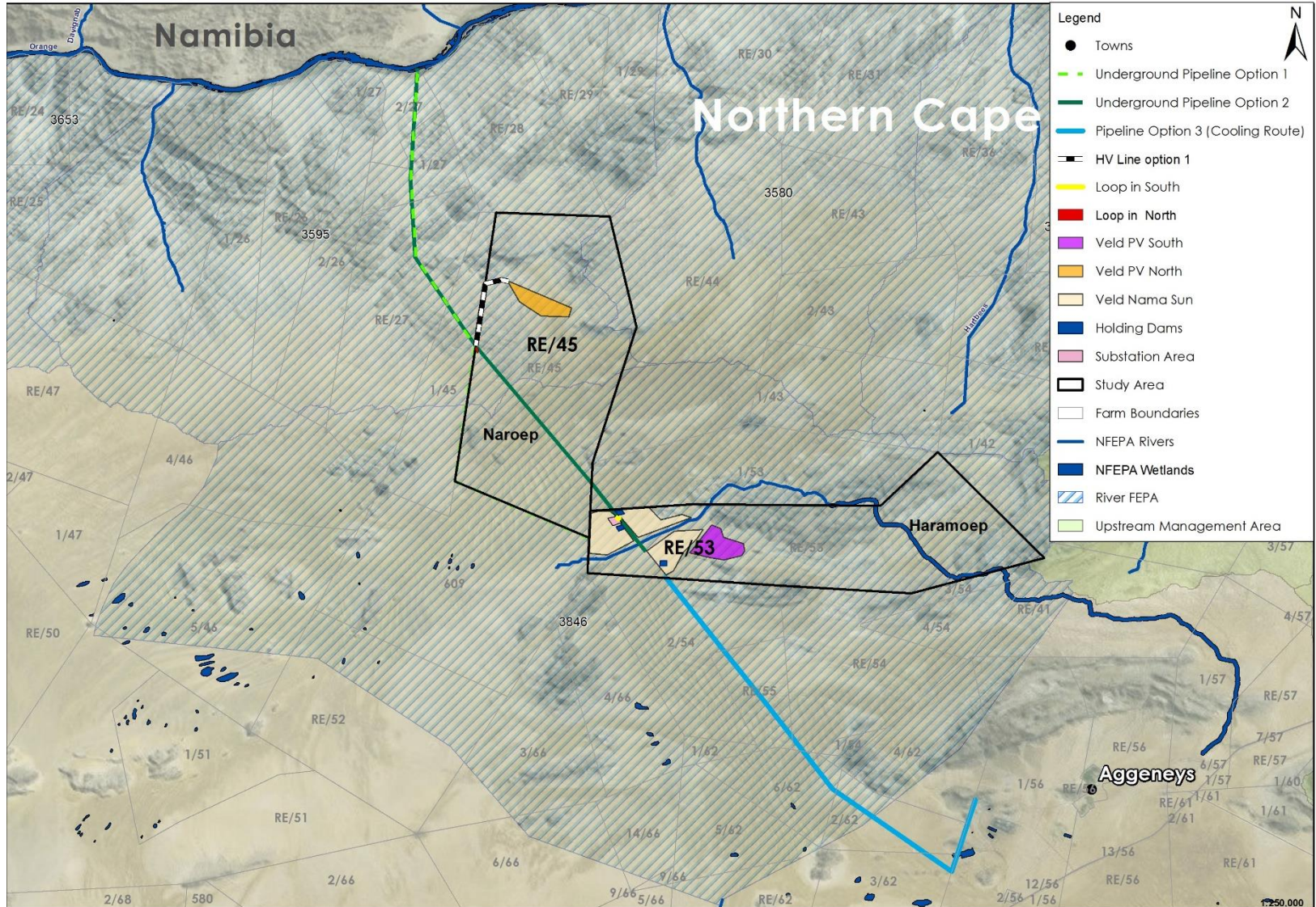
Preliminary Environmental Sensitivity Identification – NPAES focus area



Preliminary Environmental Sensitivity Identification - CBAs



Preliminary Environmental Sensitivity Identification - NFEPA's



Namakwa District Municipality Biodiversity Summary

- Areas **remaining natural** 245,7403.6 ha (**99.2%**);
- Areas where **no natural habitat** remains 19,012.2 ha (**0.8%**);
- Three **reserves** covering 64,146.6 ha (**2.6%**);
- There are **no Ramsar sites**;
- **Three biomes**;
- **18 vegetation types**;
- **23 rivers**;
- **2811 wetlands** covering 180,720.1 ha (**7.3%**);
- **No Critically Endangered (CR) Ecosystems**;
- **No Endangered (EN) Ecosystems**; and
- **No Vulnerable (VU) Ecosystems**.

Specialist Studies

Based on knowledge and experience of the study area and the particular nature of the activity, the following specialist studies are considered to be sufficient to inform the EIA process:

- **Agricultural** Impact Assessment;
- **Aquatic Ecology** Impact Assessment;
- **Avifauna** Impact Assessment (including monitoring);
- **Botanical/ Ecological** Impact Assessment;
- **Heritage** Impact Assessment (including archaeology);
- **Palaeontology** comment/assessment;
- **Stormwater Management** Assessment;
- **Visual** Impact Assessment; and
- **Socio-economic** Assessment.

Avifauna Pre-construction Monitoring

- **Avifaunal monitoring will** commence in December 2016 covering four seasons.

Proposed Programme

Tasks	Time period <i>(statutory in green)</i>	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13
Pre-Application Consultation with DEA	30 days	█												
Compile Scoping Report	Max 60 days	█	█	█										
Submit Application form/s to DEA	One week			█										
Submit Scoping Report for a 30 day public comment	<i>30 days</i>			█										
Submit Scoping Report to DEA for decision-making	One week				█									
DEA decision-making period for accepting/rejecting Scoping Report	<i>43 days</i>					█	█							
DEA to accept Scoping Report OR Refuse Scoping Report	N/A						↓							
Compile EIA Report	Max 60 days						█	█						
Submit EIA Report for 30 day public comment	<i>30 days</i>								█					
Submit EIA Report to DEA for decision-making (107 days)	Two weeks								█	█				
DEA decision-making period for making a decision on the EIA Report	<i>107 days</i>									█	█	█	█	
DEA Grant Environmental Authorisation OR Refuse Environmental Authorisation	N/A													↓
Notify I&APs of decision	<i>12 days</i>													█
Appeal Period (20 days)	<i>20 days</i>													█

Way Forward

- Questions
- DEA: inputs, requirements, and recommendations

Thank you