



## Executive Summary

# Draft Environmental Impact Report: Proposed Inyanda - Roodeplaat Wind Energy Facility

## 1. Introduction

Inyanda Energy Projects (Pty) Ltd (referred to hereafter as 'Inyanda Energy') proposes to construct a Wind Energy Facility (WEF) of up to 187.2 MW installed capacity on a number of properties, referred to collectively in this report as the farm Roodeplaat, situated in the Groot Winterhoek Mountains west of the town of Uitenhage in the Eastern Cape (see Figure 2 for site locality).

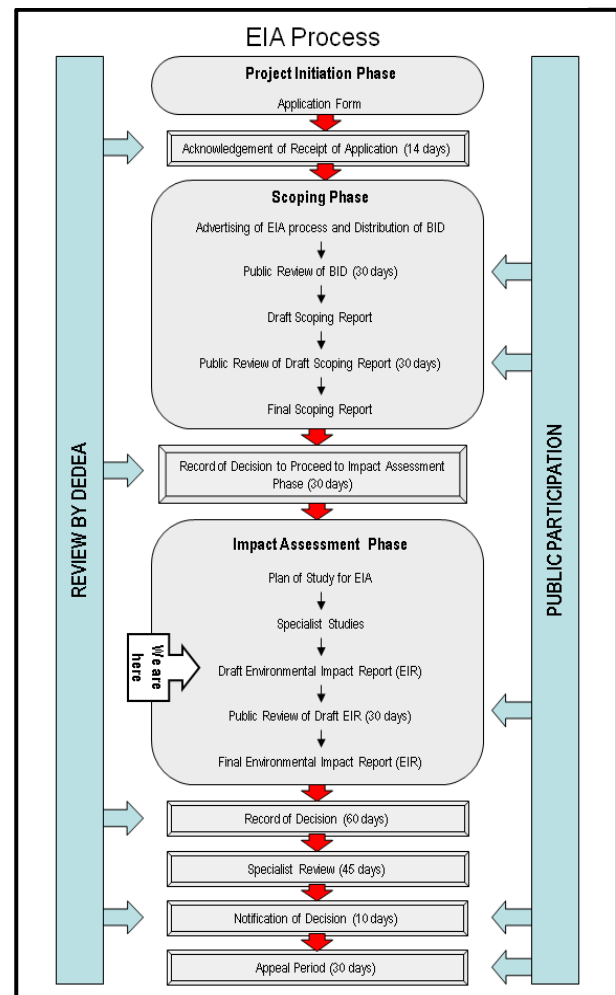
SRK Consulting (South Africa) (Pty) Ltd (SRK) have been appointed as the independent Environmental Assessment Practitioner (EAP) to conduct the EIA process for the application, which was lodged under the 2010 NEMA EIA regulations.

The project site consists of approximately 12,200 ha located on 22 adjacent property portions. The turbine footprints and associated facility infrastructure (internal access roads, substation, construction compound, batching plant and operations building) will potentially cover an area of approximately 60 ha depending on final layout design.

## 2. Approach to the Study

The proposed development is subject to environmental authorisation from DEA in terms of the National Environmental Management Act of 1998. As such, an EIA is required and this Draft Environmental Impact Assessment Report (DEIR) presents an important milestone in the EIA process. An overview of the EIA process is provided in Figure 1.

The first phase of the EIA, the Scoping Study, has been completed, and included a Public Participation Process (PPP), aimed at identifying issues and concerns of interested and Affected Parties (IAPs). The objective of the Scoping Study was to identify those issues and concerns that must be investigated in more detail, and included a Plan of Study for the EIA, which was approved on 9 October 2015.



**Figure 1: EIA Process**

The second phase of the EIA commences with the Draft Environmental Impact Report (this report). The aim of this report is to present the results of investigations of the issues and concerns identified in the Scoping Study, identify and assess the potential impacts of the development and provide

recommendations with the objective of minimising negative environmental impacts and maximising benefits.

The following activities have been done as part of the DEIR in accordance with the requirements of the NEMA EIA regulations:

- Completion of specialist studies, as per the terms of reference included in the Plan of study for EIA in the Scoping Report; and
- Compilation of this DEIR.

### 3. Development Proposal

The wind energy facility is planned to host between 46 and 52<sup>1</sup> turbines dependent on turbine supplier, each with a nominal power output of approximately 3.6 MW per turbine. The maximum total potential output of the wind farm would therefore be approximately 187.2 MW, which will serve to further support the regional and national power balance. The ultimate size of the wind turbines will depend on further technical assessments but will typically consist of three blades each approximately 63 m in length therefore creating rotor diameters of up to 130 m mounted atop a 85 m high steel (or hybrid steel/concrete) tower, i.e. the height of the wind turbine generator would be approximately 150 m from ground level to the tip of the rotor. Other infrastructure components associated with the proposed wind energy facility are inter alia:

- Concrete or rock adaptor foundations to support the wind turbine towers;
- Internal access roads to each turbine - approximately 6 meters wide;
- Underground cables connecting the wind turbines to the on-site substation. It has been confirmed that all internal power lines will be underground, and located within footprint of the internal roads, as depicted in a typical cross section;
- 132 kV electrical substation;
- 132 kV overhead powerline connecting the WEF to the existing Skilpad substation to the north east of the site (Refer to Figure 3 for the route options);
- Possible upgrading of existing roads for the transportation of the turbines to the wind energy facility;
- Buildings to house the control instrumentation, as well as a store room for the maintenance equipment; and
- Construction compound, on-site staff accommodation, and a concrete batching plant.

### 4. Findings & conclusions

The following Specialist Studies were conducted for the EIA Phase of the assessment:

- Visual Impact Assessment;

- Ecological Impact Assessment (flora and fauna);
- Noise Impact Assessment;
- Heritage, Archaeological and Paleontological Impact Assessment;
- Avi-Faunal Impact Assessment;
- Bat Impact Assessment;
- Hydrological Impact Assessment;
- Agricultural Impact Assessment; and
- Socio-economic Impact Assessment.

Table 2 summarises the significance ratings assigned to the potential impacts of the WEF. Observations with regard to the overall impact ratings, assuming mitigation measures are effectively implemented, are highlighted as follows.

- The predicted archaeological impact, associated with earthworks during the construction phase, is rated as very low and negative.
- The predicted palaeontological impact, also associated with earthworks during the construction phase, is rated as low and negative. If borrow pits are to be opened (which is not part of this assessment) then further palaeontological assessment would be required.
- The predicted impact on agricultural resources, including soil, is rated as very low and negative. The sites are unsuitable for cultivation due to topography and rainfall, and is noted as having a low carrying capacity for grazing.
- The predicted impacts on avifauna, and in particular Black Harrier, Verreaux's Eagle, Martial Eagle, and Booted Eagle, assuming that management measures are acceptable from an ecological point of view, are rated as low and negative.
- The predicted impacts on Blue Crane and Ludwig's Bustard, due to interactions with the various powerline route alignments, are rated as low and negative.
- The predicted impact on bats is rated as low and negative. Sensitive areas have been identified by the bat specialist which, if not avoided, result in the predicted impact on bats due to collisions with turbines being high and negative.
- The predicted socio-economic impacts during construction are generally positive with the impact on GDP growth, employment and skills transfer, and economic and social infrastructure, being rated as medium and positive.
- The predicted impact of in-migration is rated as very low and negative during construction and operation.
- The predicted socio-economic impacts during operation are generally positive with the impact on GDP growth and employment and skills transfer being rated as high and positive and the impacts on economic & social infrastructure and development planning being rated as medium and positive.
- The predicted impact on tourism and game farming is rated as medium and negative during operation, and very low and negative during construction.
- The predicted visual impacts of the wind turbines, including the impact on sense of place, are rated as

<sup>1</sup> Note that although 52 turbine locations are shown on the site development plan(s), the intention is to establish a wind farm with an installed capacity of 165.6 MW, i.e. 46 turbines when looking at the range of nameplate capacity (3.6 MW per turbine) of the turbines under consideration. Note further that the selection of turbines is not within the scope of the EIA

very high and negative during operation. The very high negative visual impacts identified suggest that the proposed site for the Inyanda - Roodeplaat WEF is not ideal in terms of landscape and visual considerations;

- The predicted ecological impacts are generally rated as being of low significance and negative, both during construction and operation. The predicted impact resulting from fencing of the site, which could occur as part of the development and the no-go option, is rated as having a medium and negative significance.
- The predicted impacts on water resources are due to changes in water quality and flow regime, and the potential loss of species of special concern. These impacts have been rated as having a medium and negative significance.

The challenge for DEA is to take a decision which is sustainable in the long term and which will entail trade-offs between social, environmental and economic costs and benefits. In addition to the significance rating listed above, SRK believes the following key points should also be considered in making a decision:

- Located on the ridge of the Groot Winterhoek Mountains, the topography of the site is a key factor constraining the positioning of infrastructure. Repositioning of turbines and roads on the site may not be technically feasible. A key focus of the EIA process has therefore been to request the applicant to provide a technically and economically feasible site layout alternative.
- Alternative development opportunities on the site are similarly constrained and the no-go option is expected to see the current land use continuing.
- SRK's understanding is that the landowner's willingness to enter into a stewardship agreement with ECPTA for the portions of land in the study area is contingent on the development of a WEF and as such a stewardship agreement with the ECPTA is a motivation for the development proposal.
- The site is in a rural area that could be described as wilderness, with visible man-made structures being largely absent, in between two portions of the Groendal Nature Reserve, and in close proximity to the Baviaans World Heritage Site. The views of ECPTA as the custodians of these protected areas are therefore of particular importance.
- The commitments made to inform the Socio-Economic Impact Assessment are understood to be aligned to the requirements of the REIPPPP and that the implementation of the project (should it be authorised) might not necessarily be through the REIPPPP bidding process. As such, the mechanism through which these commitments would be administered is not certain.

Key recommendations (in addition to those referred to above), which are considered essential, are:

1. Implement the EMPr to guide construction and operations activities and to provide a framework for the ongoing assessment of environmental performance;
2. Appoint an Environmental Control Officer (ECO) to oversee the implementation of the EMPr and supervise construction activities in particularly sensitive habitats;
3. Minimise the physical footprint of the development and areas disturbed by construction activities, particularly in sensitive habitats and habitats supporting species of conservation concern;
4. Rehabilitate all areas disturbed by construction;
5. Obtain other permits and authorisations as may be required, including, but not limited to
  - a. Water Use Authorisations;
  - b. Permits for the disturbance or translocation of species of conservation concern; and
  - c. Heritage destruction permits.
6. Develop and implement the Monitoring Plans for avifauna and bats, as per the relevant best practice guidelines and recommendations of the specialists.
7. To ensure that the positive socio-economic impacts are maximised and any negative impacts reduced, specific management strategies and mechanisms need to be incorporated into the overall development.
8. The noise impact from the wind turbine generators should be measured during the operational phase, to ensure that the impact is within the legal limits.
9. Bat sensitive habitats and the associated buffers should be avoided in the layout, and the additional mitigation measures relating to turbine curtailment implemented as necessary.
10. Implementation of on-and off-site habitat management programmes to reduce the attractiveness of the WEF for foraging birds, as well as turbine shut-down on demand, and a breeding bird protection programme.
11. Installation of bird flappers on high risk portions of the overhead powerlines.
12. Erosion and stormwater control, and minimising activities within the 32 m buffer of watercourses. These measures also aim to protect the endangered Eastern Cape Redfin population on the site.

## 5. Public Participation Process

A Public Participation Process (PPP) aimed at allowing the public to be involved in the environmental process is being carried out.

The PPP activities that are to take place as part of the Environmental Impact Assessment Process are listed below

- Distribution of the DEIR (this report) to public venues, identified government departments, as well as the distribution of an executive summary to all registered IAPs, and a provision of a 40 day comment period;
- Responding to all comments received on the Draft EIR by means of a comments and response table in the Final EIR, and where required making amendments in the EIR to accurately reflect responses;
- Submission of the FEIR to DEA for a decision, and notifying all registered IAPs of the submission and the responses to comments received;
- Notifying all registered IAPs of DEA's decision

A summary of comments and responses raised by IAPs and stakeholders on the Final Scoping report is provided in Table 3 below.

## 6. Way forward

The public participation process so far has given IAPs the opportunity to assist with identification of issues and potential impacts.

This Executive Summary has been distributed to all registered IAPs. Printed copies of the report are available for public review at:

- **Uitenhage Public Subscription Library** (Caledon Street, Uitenhage)
- **Kirkwood Public Library** (Jefferson Ave, Kirkwood).

The report can also be accessed as an electronic copy on SRK Consulting's webpage via the 'Public Documents' link <http://www.srk.co.za/en/page/za-public-documents>

Written comment on this Draft EIR should be sent by **17h00 on 20 May 2016** to:

Wanda Marais  
SRK Consulting  
PO Box 21842, Port Elizabeth, 6000  
Email: [wmarais@srk.co.za](mailto:wmarais@srk.co.za)  
Fax: (041) 509 4850

**Table 1: Proposed Activities and Timetable**

Stage / Activity	Dates	
	Start	End
Submission of Final Scoping Report and Plan of Study for EIA to DEA	20 March 2015	-
DEA approval of Plan of Study for EIA (potentially including recommendations)	9 October 2015	-
Issue Draft EIR for Public Comment (40 days)	8 April 2016	20 May 2016
Issue Final EIR for Public Comment (14 days)	3 June 2016	20 June 2016
Submission of Final EIR to DEA for a decision	21 June 2016	

**Table 2: Summary of potential impacts of the proposed Inyanda-Roodeplaat Wind Energy Facility and Associated Impacts**

Impact group	Impact Description	+ / -	Significance without mitigation	Significance with mitigation
<b>CONSTRUCTION</b>				
Archaeological	A1: Destruction of resources	-	Low	Very Low
Paleontological	P1: Destruction of resources	-	High	Low
Agricultural	AG1: Loss of agricultural land due to clearing	-	Low	N/A
	AG2: Soil erosion due to earth moving activities	-	Very Low	Very Low
	AG3: Loss of topsoil	-	Very Low	Very Low
Avifauna	AV2: Disturbance from foraging/nesting areas (Black Harrier)	-	Medium	Low
	AV2: Disturbance from foraging/nesting areas (Verreaux's Eagle)	-	Low	Low
	AV2: Disturbance from foraging/nesting areas (Martial Eagle)	-	Low	Low
	AV2: Disturbance from foraging/nesting areas (Booted Eagle)	-	Low	Low
Bats	B1: Damage to bat roosts	-	Low	Very low
	B2: Loss of bat foraging habitat	-	Low	Very low
Socio-economic	S1: Impacts on GDP growth	+	Medium	Medium
	S2: Impacts on investment	+	Medium	N/A
	S3: Impact on employment and skills transfer	+	Low	Medium
	S4: Impact on tourism and game farming	-	Low	Very Low
	S5: Impact on development planning	+	Medium	N/A
	S6: Impact on in-migration	-	Low	Very low
	S7: Impact on household Income	+	Medium	N/A
	S8: Impact on economic and social infrastructure	+	Medium	Medium
Visual	V1: Visual intrusion of wind turbines	-	Very high	Medium
	V2: Visual Intrusion of powerlines	-	Low	Low
Ecological	EC1: Loss of Thicket	-	Low	N/A
	EC1: Loss of Proteaceous Fynbos	-	Low	Low
	EC1: Loss of Grassy Fynbos	-	Low	Low
	EC1: Loss of Succulent Thicket	-	Low	N/A
	EC1: Loss of Karoo vegetation	-	Low	Very Low
	EC1: Loss of Degraded Thicket	-	Very low	N/A
	EC1: Loss of Renosterveld	-	Low	N/A
	EC1: Loss of Acacia	-	Low	N/A
	EC1: Loss of Riparian Thicket	-	Low	N/A
	EC1: Loss of vegetation communities due to preferred powerline	-	Medium	Low
	EC1: Loss of vegetation communities due to Powerline (Option 1)	-	High	Low
	EC1: Loss of vegetation communities due to Powerline (option 2)	-	High	Low
	EC2: Loss of plant SSC due to WEF	-	High	Low
	EC2: Loss of plant SSC due to preferred powerline	-	Medium	Low
	EC2: Loss of plant SSC due to powerline (Option 1)	-	High	Low
	EC2: Loss of plant SSC due to powerline (Option 2)	-	High	Low

Impact group	Impact Description	+ / -	Significance without mitigation	Significance with mitigation
	EC3: Loss of fauna SSC due to clearing for WEF	-	Very Low	Insignificant
	EC3: Loss of fauna SSC due to preferred powerline	-	Low	Very Low
	EC3: Loss of fauna SSC due to powerline (Option 1)	-	Medium	Very Low
	EC3: Loss of fauna SSC due to powerline (Option 2)	-	Medium	Very Low
	EC4: Loss of Biodiversity due to clearing for WEF	-	Medium	Very Low
	EC4: Loss of Biodiversity due to preferred powerline	-	Medium	Low
	EC4: Loss of Biodiversity ( powerline Option 1)	-	High	Low
	EC4: Loss of Biodiversity ( powerline Option 2)	-	High	Low
	EC5: Fragmentation and edge effects	-	Very Low	N/A
	EC6: Invasion of alien species due to WEF	-	Medium	Insignificant
	EC6: Invasion of alien species ( preferred powerline)	-	High	Low
	EC6: Invasion of alien species ( powerline Option 1)	-	High	Low
	EC6: Invasion of alien species ( powerline Option 2)	-	High	Low
	EC7 Impacts of dust on vegetation	-	Medium	Very Low
Hydrology	H1: Diversion and increased velocity of flow	-	High	Medium
	H2: Changes to water Quality	-	High	Medium
	H3: Loss of riparian vegetation, aquatic habitat and stream continuity	-	High	Low
	H4: Loss of aquatic SSC	-	High	Medium
Noise	N1: Construction of turbines	-	Very Low	Insignificant
	N2: Construction at batching plant	-	Very Low	Insignificant
Waste	W1: Lack of Waste Management	-	Medium	Insignificant
Hazardous Substances	SH1: Soil and groundwater contamination	-	Medium	Low
Air Quality	AQ1: Impact on human receptors	-	Low	Insignificant
<b>OPERATION</b>				
Avifauna	AV1: Collision risk for Black Harrier	-	Medium	Low
	AV1: Collision risk for Verreaux's Eagle	-	Medium	Low
	AV1: Collision risk for Martial Eagle	-	Low	Low
	AV1: Collision risk for Martial Eagle	-	Low	Low
	AV3: Collision with powerlines (Blue Crane)	-	High	Low
	AV3: Collision with powerlines (Ludwig's Bustard)	-	High	Low
Bats	B3: Mortality due to turbines	-	High	Low
	B4: Artificial lighting	-	Medium	Very low
Socio-economic	S1: Impacts on GDP growth rates	+	High	High
	S2: Impact on investment	+	Medium	N/A
	S3: Impact on employment and skills transfer	+	High	High
	S4: Impact on tourism and game farming	-	Medium	Medium
	S5: Impact on development planning	+	Medium	Medium
	S6: Impact on in-migration	-	High	High
	S7: Impact on household income	+	Medium	Medium
	S8: Impact on economic and social infrastructure	+	Very High	Very High
Noise	N3: Disturbance during operation	-	Insignificant	Insignificant
	N4: Impact on visitors to Groendal Nature Reserve	-	Insignificant	Insignificant

Impact group	Impact Description	+ / -	Significance without mitigation	Significance with mitigation
Visual	V3: Visual intrusion on sense of place	-	Very High	Very High
	V4: Visual intrusion of wind turbines	-	Very High	Very High
	V5: Visual intrusion of obstruction lights	-	Very High	Very High
	V6: Visual intrusion of powerlines	-	Very High	High
Ecological	EC 8: Impacts of noise on mammals	-	Low	N/A
	EC 8: Impacts of noise on reptiles	-	Low	N/A
	EC 8: Impacts of noise on amphibians	-	Medium	N/A
	EC9: Impacts of fencing	-	Medium	Very Low
Hydrology	H1: Diversion and increased velocity of flow	-	High	Medium
	H2: Changes to water Quality	-	High	Medium
	H3: Loss of riparian vegetation, aquatic habitat and stream continuity	-	High	Low
Waste	W2: Lack of Waste management	-	Low	Very Low
	SH2: Soil and groundwater contamination	-	Very Low	Very Low
DECOMMISSIONING				
Visual	V7: Visual intrusion of turbines	-	Very high	Medium
	V8: Visual intrusion of powerlines	-	Low	Low
Waste	W3: Lack of Waste management	-	High	Insignificant

**Table 3: Issues and responses following the release of the FSR**

Raised by	Date	Issue	Response
<b>General</b>			
Elands River Conservancy (ERC)	email 2015/04/07	The ERC strongly supports the use of environmentally renewable energy sources, handled responsibly and with the least possible detrimental effect to the environment.	[SRK] Noted.
Elands River Conservancy (ERC)	email 2015/04/07	We accept the need for additional electricity, but it cannot be achieved at the expense of the environment.	[SRK] Noted.
B Kruger Local farmer	fax 2015/04/19	Request that SRK investigate suitability of their farm for similar project.	[SRK] The request falls outside the scope of this particular EIA.
P Swanepoel Uitenhage Aero Club	email 2016/02/16	We confirm our in-principle support of the proposed project, particularly in term of the anticipated investment into renewable energy generation and socio-economic development, subject to the satisfactory submission of all regulatory requirements.	[SRK] Noted.
A Southwood DEDEAT	email 2015/03/31	The Department will only comment once transgression (construction of roads) by Applicant being investigated by Compliance and Enforcement Section is resolved.	[SRK] SRK is of the understanding that the legality of the road referred to in this comment has been assessed by DEA and to our knowledge no case has been opened against the landowner by either DEA or DEDEAT.
<b>Ecological</b>			
Dr B Smuts Landmark Foundation	email 2015/03/20	Industrial development on the proposed site will have adverse effect on a leopard population that is genetically bottlenecking.	[SRK] The potential impacts on fauna, including leopards are assessed as part of the ecological specialist study (see the Supplementary Volume of Specialist Studies Appendix F), findings of which are summarised in Section 5.8 of the DEIR.
Elands River	email	Elands River Valley is home to less common	[SRK] The potential impacts on fauna are assessed as

<b>Raised by</b>	<b>Date</b>	<b>Issue</b>	<b>Response</b>
Conservancy (ERC)	2015/04/07	mammals such as Klipspringer (protected), Blue Duiker (endangered), Grysbok (protected), Cape Mountain leopard (vulnerable), Mountain Reedbuck (protected), Aardvark, Bushbuck (ewe protected), Honey Badger, Snake mongoose, Aardwolf and Elephant Shrew.	part of the ecological specialist study (see the Supplementary Volume of Specialist Studies Appendix F), findings of which are summarised in Section 5.8 of the DEIR.
Elands River Conservancy (ERC)	email 2015/04/07	Many vulnerable invertebrates, including protected species, are found here which forms an integral part of the biotic co-habitation.	[SRK] The potential impacts on fauna are assessed as part of the ecological specialist study (see the Supplementary Volume of Specialist Studies Appendix F), findings of which are summarised in Section 5.8 of the DEIR.
Elands River Conservancy (ERC)	email 2015/04/07	Diversity of reptiles is seen in the area that play vital role in rodent control.	[SRK] The potential impacts on reptiles are assessed as part of the ecological specialist study (see the Supplementary Volume of Specialist Studies Appendix F), findings of which are summarised in Section 5.8 of the DEIR.
Elands River Conservancy (ERC)	email 2015/04/07	Of great importance is the Smith's Dwarf Chameleon that is a protected species.	[SRK] Section 3.6.1 includes an extract from the baseline study included in The Supplementary Volume of Specialist Studies to the Draft EIR and the ecological specialist has commented on the likely impact of the proposed development on Species of Special concern, including Smith's dwarf chameleon (see Appendix F of the Supplementary Volume of Specialist Studies, and summarised in Section 5.8 of the DEIR).
Dr Paul Martin Private Environmental Consultant	email 2015/03/24	Risks that Wind Farm may have on KwaZungu River and its catchment must be assessed, in light of its current excellent water quality and healthy populations of endemic fish. Risk of siltation and seep interference from erosion / runoff from wind farm roads.	[SRK] The potential impacts on hydrological features including the Kwazungu river are assessed as part of the hydrological specialist study (see the Supplementary Volume of Specialist Studies Appendix G), findings of which are summarised in Section 5.9 of the DEIR.
Dr Paul Martin Private Environmental Consultant	email 2015/03/24	Cut and fill calculations will be required to see whether there will be excess spoil that needs to be taken somewhere or additional fill required. Where will excess spoil be disposed of / additional fill acquired from?	[SRK] This has been taken into account by the design engineers and is included in the project description Section 2.2.3 and Section 5.13 of the DEIR.
Dr Paul Martin Private Environmental Consultant	email 2015/03/24	Impact of facility on mountain slope / ridge and valley must not be under-estimated as it is in a Protected Area Expansion Area.	[SRK] Measures to control erosion and habitat destruction during construction and operation of the wind farm are included in the Environmental Management Programme (Section 7.4 and 7.5 of the DEIR). Specific Stormwater and erosion management plans to address these impacts are included in Appendix G of the DEIR.
Elands River Conservancy (ERC)	email 2015/04/07	Geomorphology complicates erection of large structure over extended distances and makes access for maintenance cumbersome and costly. Large structure on the proposed farm will have a larger surface impact since the true distance is considerably bigger.	[SRK] The ecological specialist study (see Appendix F of the Supplementary Volume of Specialist Studies, and summarised in Section 5.8 of the DEIR) has evaluated the footprint of the development, taking into consideration the increased footprint expected due to topography.
Elands River Conservancy (ERC)	email 2015/04/07	Steep slopes in valley raise the risk of soil erosion on any disturbed areas.	Measures to control erosion and habitat destruction during construction and operation of the wind farm are included in the Environmental Management Programme (Section 7.4 and 7.5 of the DEIR).
Eastern Cape Parks & Tourism Agency (ECPTA)	email 2015/04/07	The process to extend the Baviaanskloof section of the Cape Floristic Region World Heritage Site (CFR WHS) should be noted as the construction of the windfarm on the boundary of the WHS is considered inappropriate.	[SRK] Noted. The proximity of the proposed development to these conservation areas is recorded in Figure 3.9, and the CFR is discussed in Section 3.5.2 of the DEIR. The ecological Impact Assessment (Appendix F of the Supplementary Volume of Specialist Studies) has also taken this into account.
Eastern Cape Parks & Tourism	email	Concern regarding impacts on the dwarf chameleon and Hewitt's ghost frog remain	[SRK] The ecological specialist studies have now been completed and both species mentioned have been taken



<b>Raised by</b>	<b>Date</b>	<b>Issue</b>	<b>Response</b>
Agency (ECPTA)	2015/04/07	despite specialist study detailing possible impacts and mitigation measures.	into account in these studies. Section 3.6.1 includes an extract from the baseline ecological study and the ecological specialist has commented on the likely impact of the proposed development on Species of Special concern (see Appendix F of the Supplementary Volume of Specialist Studies, and summarised in Section 5.8 of the DEIR).
Eastern Cape Parks & Tourism Agency (ECPTA)	email 2015/04/07	The FSR (p61) makes no reference to the National Freshwater Ecosystem Priority Areas, although there is a map of NFEPA areas. Please refer to figure 3-8 on page 65.	[SRK] The NFEPA is included in the list of conservation and planning tools relevant to the project in Table 3.7 of the DEIR, and has been taken into consideration in the hydrological specialist study (see Section 3.3 of the DEIR, and Appendix G of the Supplementary Volume of Specialist Studies).
Eastern Cape Parks & Tourism Agency (ECPTA)	email 2015/04/07	The FSR (p61) makes no reference to the Eastern Cape Protected Areas Expansion Strategy (ECPAES), which has been approved by the National Department of Environmental Affairs (DEA) and should be referred to and included in future reports.	[SRK] The ECPAES has been included in the list of conservation and planning tools relevant to the project in Table 3.7 of the DEIR.
Eastern Cape Parks & Tourism Agency (ECPTA)	email 2015/04/07	Quality of Fig 3-11 "Baviaanskloof planning Tools and Protected Areas" is poor as none of the Baviaanskloof planning tools are depicted in the map besides for the planning domain of the Baviaanskloof Mega-Reserve (BMR). There is a need to analyse outcomes of the BMR biodiversity plan and to noted that the proposed site falls within a Critical Biodiversity Area (CBA). The use of polygons to depict biodiversity hotspots is not appropriate at this scale. Biodiversity hotspots reflect regional priorities and should not be displayed at this scale.	[SRK] CBAs in terms of the BMR plan are shown in Figure 3.12 of the DEIR, and have been taken into account in the ecological specialist study (see Appendix F of the Supplementary Volume of Specialist Studies).
<b>Alternatives</b>			
Elands River Conservancy (ERC)	email 2015/04/07	The ERC proposes that other more suitable sites be investigated.	[SRK] The investigation of site alternatives is outside the scope of this EIA. Motivation for the selection of this particular site is provided in Section 2.4.1 of the DEIR
<b>Process &amp; Reporting</b>			
D Thompson DMR	email 2016/01/27	You will be required to submit a surface usage application for the DMR for approval, since a project of this type will in effect sterilize the area under review for the extraction of potential minerals. Contact details of relevant officials provided.	[SRK] Noted.
Dr Paul Martin Private Environmental Consultant	email 2015/03/24	Will the development require Water Licences?	[SRK] It is expected that Water Use Licenses will be required for certain river crossings (e.g. in cases where existing bridges are widened) and for the abstraction of groundwater during construction. Water Use License applications are however outside the scope of this EIA.
<b>Social Responsibility, Employment &amp; Tourism</b>			
Elands River Conservancy	email 2015/04/07	The Conservancy foresees that it will become part of the linking corridors for the planned Mega Reserve including the Addo Park and the Baviaanskloof Wilderness Area. Constructing a wind farm of the proposed scale will have a negative impact on this vision.	[SRK] Comment on the proximity to these protected areas is made throughout this report. SRK will consult with ECPTA during the comment period of the DEIR.
Elands River Conservancy	email 2015/04/07	For many residents tourism is an income-generating opportunity as the Elands River Valley is a gateway to the Baviaanskloof Wilderness Area and borders on the Groendal	[SRK] Impacts on biodiversity, visual character of the area, and socio-economics (including tourism) are addressed in the relevant specialist studies, which are included in the Supplementary Volume of Specialist

Raised by	Date	Issue	Response
		Wilderness Reserve. Eco-tourism and related ventures rely heavily on visual aesthetics and biodiversity.	Studies Appendices F, J & I, and summarised in Sections 5.8, 5.11 and 5.12 of the DEIR.
Elands River Conservancy	email 2015/04/07	Proposed project holds no advantages for residents of Elands River Valley as it is stated that local labour cannot be used for external contractors since the Elands River community has limited workforce for existing employment.	[SRK] Potential socio-economic impacts on the local community have been assessed via a specialist study (see the Supplementary Volume of Specialist Studies Appendix I), the findings of which are summarised in Section 5.11 of the DEIR.
Elands River Conservancy	email 2015/04/07	Employment of workers outside of area opens up risk of criminal activity.	[SRK] Potential socio-economic impacts on the local community have been assessed via a specialist study (see the Supplementary Volume of Specialist Studies Appendix I), the findings of which are summarised in Section 5.11 of the DEIR. Impacts on crime are however difficult to predict and manage.
P Swanepoel Uitenhage Aero Club	email 2016/02/16	Due to a number of listed factors, investment into social and economic infrastructure and initiatives is necessary to ignite and expedite growth and development in the region.	[SRK] Noted.
<b>Avifauna &amp; Bats</b>			
Adri Barkhuysen Interested Party	email 2015/03/23	Interested in potential impact of WEF on local eagle populations and requests opportunity to view pre-construction avifauna report.	[SRK] All pre-construction monitoring reports that SRK is aware of are included in the Supplementary Volume of Specialist Studies Appendix D.
Adri Barkhuysen Interested Party	email 2015/03/23	Observation that local eagle population more active in adverse weather conditions increasing likelihood of collision with wind turbine hidden by fog blanket. Suggest study to investigate this.	[Steve Percival (bird specialist)] This possibility has been considered in the assessment. Data have been obtained in restricted visibility conditions though not when visibility has been completely curtailed. Given the general preference of the eagles to use lower ground for foraging during periods when they can be seen, it is considered very unlikely that such behaviour would materially affect the conclusions reached.
Adri Barkhuysen Interested Party	email 2015/03/23	Aggression and focus of territorial display of local eagles renders them vulnerable to collision with turbines.	[Steve Percival (bird specialist)] Baseline data have been obtained from a comprehensive vantage point survey, with little evidence of this behaviour on the wind farm site. Additionally, the site has been designed to avoid turbines in proximity to nests where display behaviour more likely.
Adri Barkhuysen Interested Party	email 2015/03/23	Hunting tactics and use of entire mountain top will increase possibility of local eagles colliding with turbines.	[Steve Percival (bird specialist)] Again we have obtained a comprehensive baseline data set on bird flight activity to assess this possibility, and collision modelling has enabled the collision risk to be quantified – the conclusions was reached that, with the recommended mitigation measures in place, any effect on the local eagles would not be significant.
Adri Barkhuysen Interested Party	email 2015/03/23	Concern regarding impact of proposed project on breeding success of eagle population.	[Steve Percival (bird specialist)] The baseline surveys have shown that eagle breeding success in the area is already variable between years. With the proposed mitigation measures in place there should be a net gain in foraging quality for the eagles, so there would then be no reason to expect any reduction in breeding success.
Elands River Conservancy	email 2015/04/07	25 species of birds identified in the ERC are endemic. Collisions of large terrestrial birds with wires of utility structures have been determined to be one of the most important mortality factors for this group of birds in South Africa (reference provided). Certain group more susceptible to collision (reference provided), examples being The White Stork, Stanley's Bustard and the Blue Crane.	[SRK] This impact has been assessed as part of the avifauna specialist study, a copy of which is provided in the Supplementary Volume of Specialist Studies Appendix D, the findings of which are summarised in Section 5.6 of the DEIR.
Elands River	email	During erection of wind farms habitat destruction	[Steve Percival (bird specialist)] The wind farm has been

Raised by	Date	Issue	Response
Conservancy	2015/04/07	and alteration takes place which may lead to temporary or permanent abandonment of nest by adult birds or premature fledglings.	designed to avoid any infrastructure or construction works in proximity to any eagle nests (with a 1.5 km buffer between turbines and all known eagle nesting sites). As a result, the construction activity would not take place within any area where the eagle nest sites might be disturbed.  In terms of habitat loss, this will affect only a very small part of the eagles' foraging ranges and will not be significant. Displacement from foraging areas has the potential to be more important, but this will be mitigated through the provision of improved eagle foraging habitat off-site (though still within the same eagles' ranges).
Elands River Conservancy	email 2015/04/07	Report of 2 breeding pairs of Black Eagles in vicinity of farm bordering proposed site.	[SRK] Black eagle populations in the area have been monitored by specialists as part of the pre-construction bird monitoring program (see monitoring reports in the Supplementary Volume of Specialist Studies Appendix D).
Elands River Conservancy	email 2015/04/07	Far-reaching implications for certain large, rare species that only breed once every one or two years.	[SRK] Impacts on avifauna have been assessed as part of the avifauna specialist study, a copy of which is provided in the Supplementary Volume of Specialist Studies Appendix D, the findings of which are summarised in Section 5.6 of the DEIR.
Elands River Conservancy	email 2015/04/07	Disturbance could lead to extinction of certain species in the valley.	[SRK] The Crowned Eagle and Denham's Bustard were both indicated as target species in the 2013-14 monitoring surveys, however Denham's Bustard was not confirmed to be present on the site, and the specialists noted that more suitable habitat for Crowned Eagle was present in the areas adjacent to the site, and they are therefore unlikely to use the WEF area. Further detail is provided in Section 3.6.2 of the DEIR and the avifauna specialist study, a copy of which is provided in the Supplementary Volume of Specialist Studies Appendix D.
Eastern Cape Parks & Tourism Agency (ECPTA)	email 2015/04/07	Request confirmation that the Crowned eagle was excluded from the target bird species of most concern, as Crowned eagles are vulnerable to wind farms.	[SRK] The Crowned Eagle and Denham's Bustard were both indicated as target species in the 2013-14 monitoring surveys, however Denham's Bustard was not confirmed to be present on the site, and the specialists noted that more suitable habitat for Crowned Eagle was present in the areas adjacent to the site, and they are therefore unlikely to use the WEF area. Further detail is provided in Section 3.6.2 of the DEIR and the avifauna specialist study, a copy of which is provided in the Supplementary Volume of Specialist Studies Appendix D.
<b>Roads &amp; Transport</b>			
B Reeves ECPTA	email 2015/03/20	Is it true that a road has already been constructed for this development? We have requested DEDEAT and DEA to investigate the matter further.	[SRK] We are aware of a road on the site constructed prior to SRK being appointed. One of the internal access roads in the proposed site development plan does largely coincide with this existing road, however, we cannot state whether this road was constructed for the purpose of the wind farm.
L Dodd Elands River Conservancy	email 2015/04/07	We reported the illegal 'road making' and were impressed that the issue was resolved.	[SRK] SRK is of the understanding that the matter of the road is being dealt with separately to the EIA process.
N Gouws SANRAL	email 2015/03/20	Abnormal loads must be transported by road to the site and will need permits obtainable from the Provincial Government of the Eastern Cape. Access to the wind farms must be obtained from secondary roads where possible. An application to utilise a national road must be submitted to SANRAL for consideration accompanied by a Traffic Impact Assessment (TIA).  Any upgrade of access roads to accommodate abnormal loads will at the cost of the developer and shall be to SANRAL's standards and requirements.	[SRK] Traffic and transportation management plans are included as Appendix G of the DEIR. The relevant permit applications fall outside the scope of the EIA process, and will be lodged as and when required.
Elands River Conservancy	email 2015/04/07	Elands River Road is gravel road which is not properly or regularly maintained. Any increased and especially heavy traffic will greatly deteriorate its condition. The road can at many places only accommodate single lane of traffic	[SRK] Access to the site is depicted in Figure 2-12 of the DEIR.  [Afri-Coast] The main length of road (provincial gravel road) has been assessed by the civils teams, both Owners Engineer and Turbine Supplier, no upgrading

<b>Raised by</b>	<b>Date</b>	<b>Issue</b>	<b>Response</b>
		making access problematic.	would be required as the road is in a good stable condition.
Eastern Cape Parks & Tourism Agency (ECPTA)	email 2015/04/07	Illegal construction of roads is in contravention of NEMA and triggers various listed activities under 2010 EIA Regulations. Noted that SRK was aware of the construction and did not reference it in the FSR even though activity 3 of Listing Notice 3 of GNR 546 is discussed on page 6. EAP should address this in future reports and inform the relevant authority.	[SRK] This Draft EIR describes and assesses the roads that are proposed as part of wind farm development. SRK has been informed that the road referred to in this comment is not part of the proposed project and as such has not specifically been assessed in this EIR. SRK is further of the understanding that the legality of the road has been assessed by DEA and to our knowledge no case has been opened against the landowner by either DEA or DEDEAT.
Eastern Cape Parks & Tourism Agency (ECPTA)	email 2015/04/07	Page 37 of the FSR states that 'the possible upgrading, resurfacing and/or rehabilitation of these gravel roads and associated borrow pits is outside the scope of the EIA process'. The activity is directly linked to the proposed project and would have not required an upgrade if not for the windfarm. The impacts should also be assessed during the decision-making process.	[SRK] If the need to upgrade of off-site roads is identified during the detailed design of the project, and if such upgrades triggered the need for an environmental authorisation, then a separate authorisation process would be required. The upgrading of off-site roads is specifically excluded from this EIA process.
<b>Infrastructure</b>			
J Geeringh Eskom	email 2015/03/23	Provided Eskom requirements for works at or near Eskom infrastructure.	[SRK] Eskom requirements have been noted in the design.
N Gouws SANRAL	email 2015/03/20	When electrical power lines have to be installed / erected (overhead / parallel) to the national road, the following conditions shall apply and application for such way leaves must be submitted to SANRAL:  When crossing national road with overhead powerline, no tower, pole or stay shall be erected within 60 meters from the national road reserve boundary (132 kV lines); and  A vertical clearance of not less than 7.0 metres, measured from crown of national road to lowest wire shall be observed.	[SRK] This information has been conveyed to the developer, to take into account in the design of the powerlines.

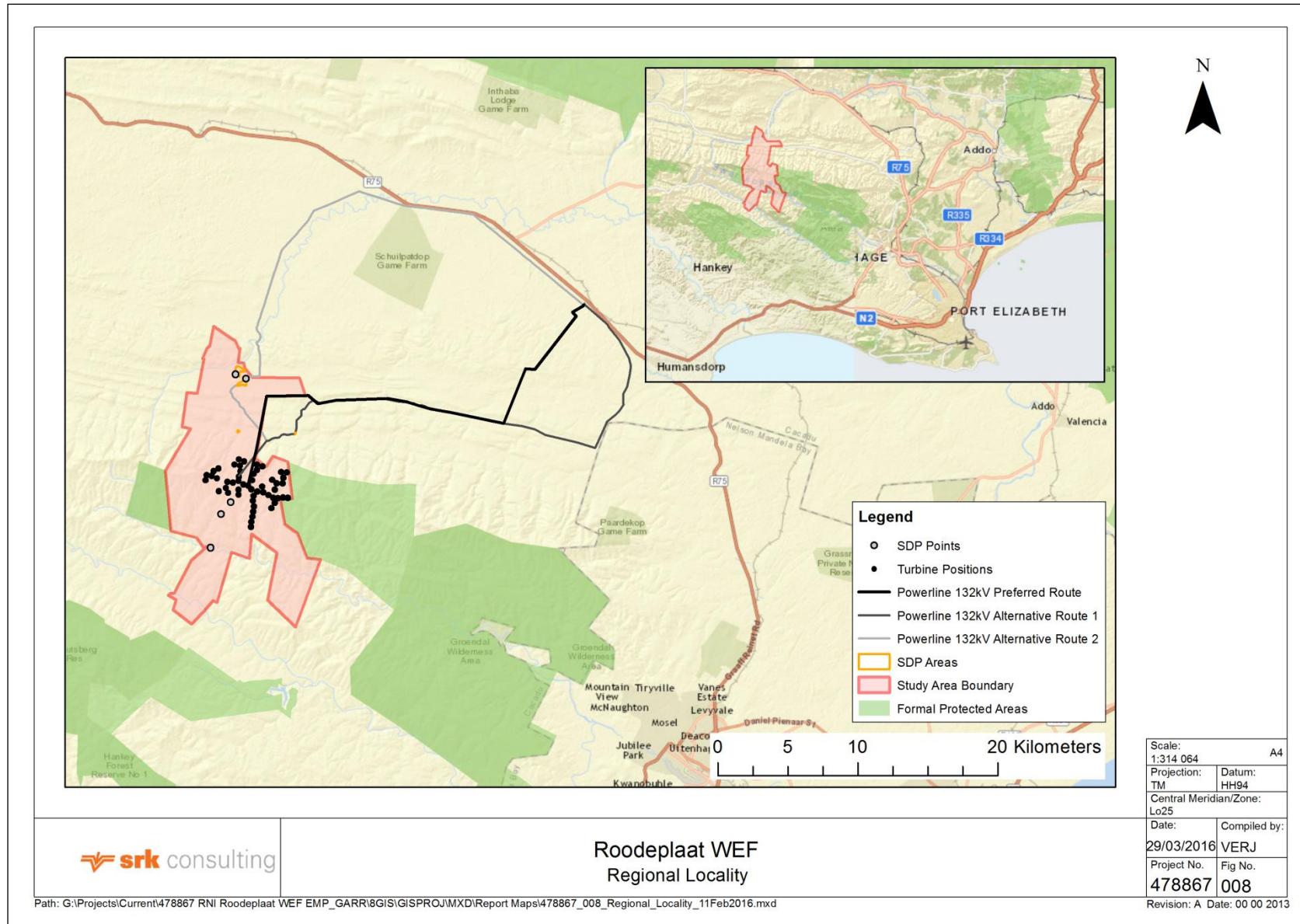


Figure 2: Site Locality Plan for the Inyanda – Roodeplaat WEF

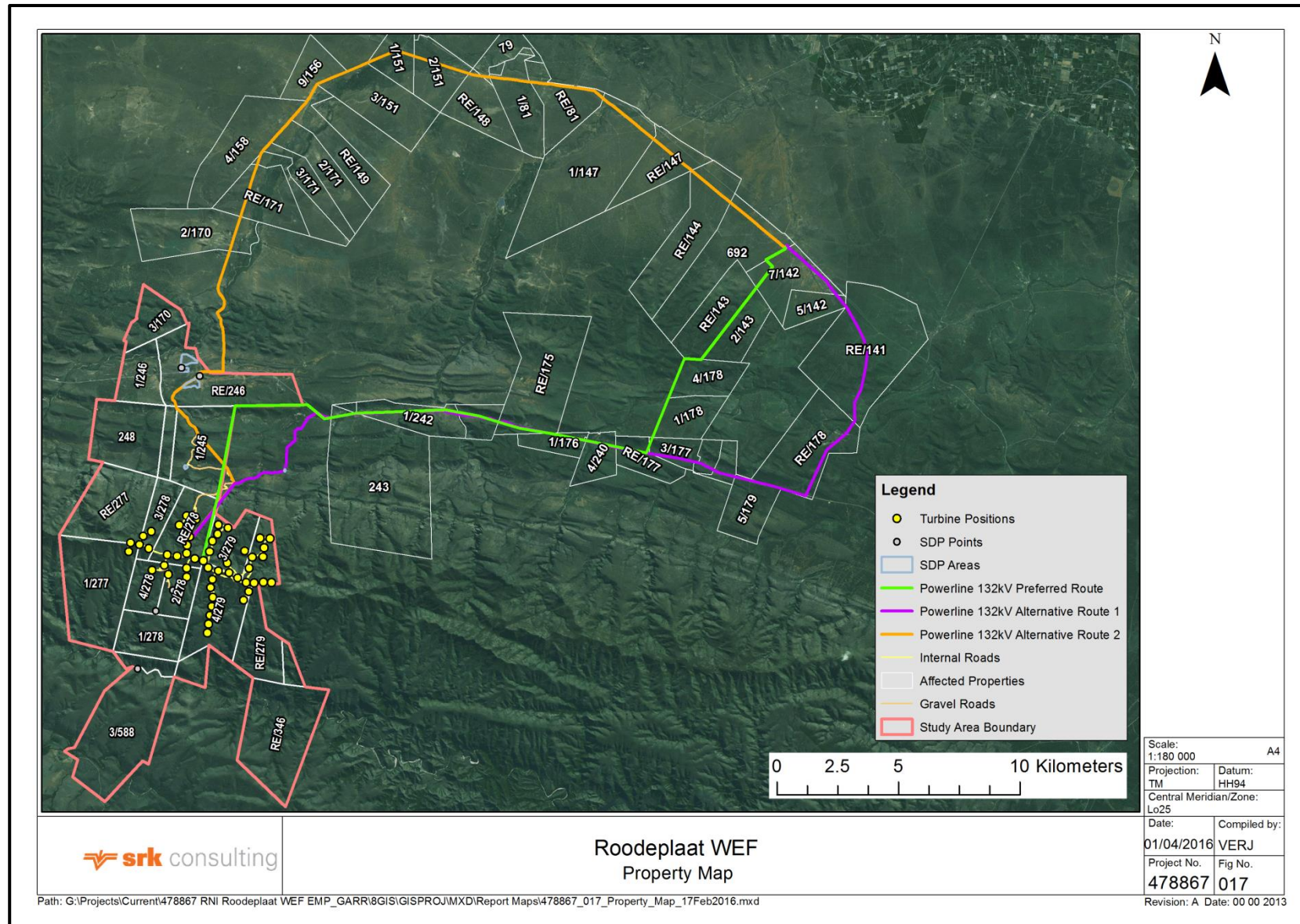


Figure 3: Site Layout Plan