

# **Assegai LPG-powered Power Generation with associated infrastructure, Saldanha IDZ, Western Cape Province**

## **FAUNAL IMPACT SCOPING STUDY**



**PRODUCED FOR CHAND ENVIRONMENTAL CONSULTANTS**

**BY**



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## **SPECIALIST DECLARATION**

I, ..Simon Todd..., as the appointed independent specialist, in terms of the 2014 EIA Regulations, hereby declare that I:

- I act as the independent specialist in this application;
- I perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- regard the information contained in this report as it relates to my specialist input/study to be true and correct, and do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the NEMA, the Environmental Impact Assessment Regulations, 2014 and any specific environmental management Act;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I have no vested interest in the proposed activity proceeding;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- I have ensured that information containing all relevant facts in respect of the specialist input/study was distributed or made available to interested and affected parties and the public and that participation by interested and affected parties was facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments on the specialist input/study;
- I have ensured that the comments of all interested and affected parties on the specialist input/study were considered, recorded and submitted to the competent authority in respect of the application;
- all the particulars furnished by me in this specialist input/study are true and correct; and
- I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.



Signature of the specialist: \_\_\_\_\_

Name of Specialist: \_\_\_\_Simon Todd\_\_\_\_\_

Date: \_\_\_\_14 October 2020\_\_\_\_\_

## TERMS OF REFERENCE

- Provide a broad, baseline description of the faunal species likely to be present on site and in the broader study area.
- Identify any species of special concern and their conservation status that may be impacted on by the proposal.
- Broadly identify any faunal impacts that would need further study during the EIA phase.
- Provide a Plan of Study which describes the way forward and the methodology which would be employed during the EIA phase.

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# 1. Introduction

The project area is located adjacent to the Saldanha Industrial Development Zone (IDZ), in Saldanha Bay, Western Cape, where the applicant is proposing to develop a gas-to-power facility for direct transmission into the ESKOM electricity grid. The proposal forms part of a bid submission to be included under the Risk Mitigation IPP Procurement Programme for new generation capacity (as advertised by the DMRE).

The project aims to have LPG supplied from a VLGC's (Very Large Gas Carrier) at the Port of Saldanha which would be offloaded via a pipeline to the existing Avedia Energy onshore terminal (previously authorised). The vessel will serve as primary storage whilst the facility will serve as secondary storage.

The power plant, to be established on the existing Avedia Energy terminal site, will consist of eight gas fired turbines fuelled with the piped LPG. The LPG will be supplied from the on-site LPG tanks via an on-site pipeline. The process entails the direct fire vaporisation of propane to produce propane vapour which will be used to fuel the turbines. With a maximum output of 32 MW per turbine, and considering transmission loss, it is anticipated that a maximum of 320 MW of power generation can be achieved. The activity will emit NO<sub>x</sub>, SO<sub>x</sub> and Particulate Matter.

The below site layout (Figure 1) was provided.

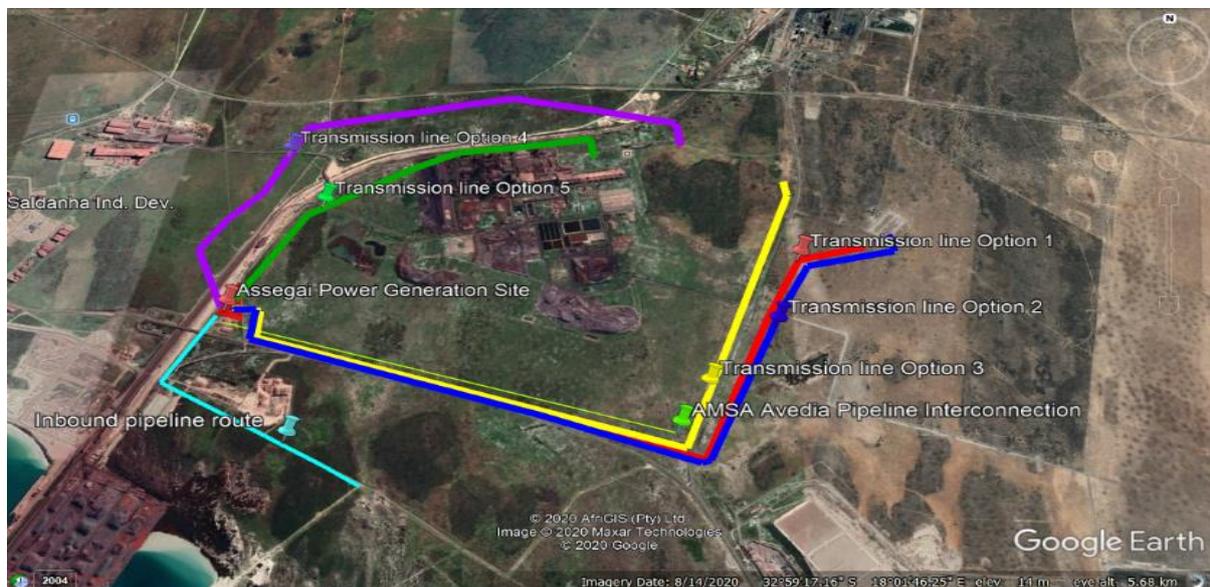


Figure 1: Site layout

## 2. Approach

The study is based on a desktop review of the available faunal information for the study area as well as previous experience on the site and in the immediate area. The primary source of

information for the study was the ADU Virtual Museum <http://vmus.adu.org.za/> data portal and the SABAP 2 database <http://sabap2.birdmap.africa/>. Data was extracted for the quarter degree squares 3218CC and 3318AA and the two SABAP Pentads which cover the site. Although this approach has some limitations as not all species present in the area are likely to be recorded in the databases, the selected pentads and quarter degree squares include a much wider range of habitats than is present in the affected area, with the result that this represents a conservative approach and the lists obtained include a much wider variety of species than would be present on site. Although there are likely some omissions and gaps in the data, these would be addressed in the EIA phase through site verification, habitat assessment and faunal surveys. The approach is therefore considered adequate for the scoping phase of the project.

### **3. Mammals**

Although more than 50 different mammal species are known from the wider area around the site, this total is significantly inflated by the presence of the West Coast National Park. Within the affected area, the habitat has been significantly disturbed by transformation and development, with the result that the actual number of mammals likely to be present within the affected area would be considerably lower than the total for the wider area. Due to the human impact in the area, the faunal community is dominated by smaller and more disturbance-tolerant species. Species observed to be common in the area based on previous work in the vicinity includes Steenbok, Bush Duiker, Cape Porcupine, Cape Hare, Common Genet and Cape Gray Mongoose as well as numerous small mammals such as Cape Dune Mole-rat, Southern African Mole-rat, Cape Golden Mole, Cape Gerbil, Southern African Vlei Rat, Karoo Bush Rat, Xeric Four-striped Grass Rat, Southern African Pygmy Mouse, Forest Shrew and Lesser Dwarf Shrew.

Listed species known from the wider area include Grant's Golden Mole (VU), Litledale's Whistling Rat (NT) and African Clawless Otter (NT). In addition, the Bontebok (VU) and Brown Hyena (NT) have also been recorded from the area but are not considered to be free-roaming and would be restricted to conservation areas. Due to the disturbed nature of most of the affected area, the potential impact on listed mammals would be low and no specific impacts on a particular species or habitat of significance is likely. The development would result in some habitat loss and fragmentation for local fauna, but this is not likely to compromise the local populations of any species of concern.

### **4. Reptiles**

The reptile diversity of the wider area around the site is quite diverse with more than 40 different reptiles having been recorded from the two quarter degree squares around the site. Within the site itself, reptile diversity would be constrained to some degree firstly by the level of disturbance and transformation but also by the lack of rocky outcrops or other notable reptile habitats which would preclude a number of species from the area. Common species observed in the area or likely to be present include Angulate Tortoise, Puff Adder, Boomslang, Mole Snake, Southern Striped Pygmy Gecko, Western Dwarf Chameleon, Cape Legless Skink and Cape Skink. Several

listed reptiles are known from the area including the Cape Dwarf Chameleon (VU), Large-scaled Girdled Lizard (NT), Black Girdled Lizard (NT), Cape Sand Snake (VU), Gronovi's Dwarf Burrowing Skink (NT), Kasner's Dwarf Burrowing Skink (NT), Bloubergstrand Dwarf Burrowing Skink (NT) and Southern Adder (VU). Although the narrow range of habitats present is likely to preclude several of these from the affected area, it is likely that at least some of these listed species are present within the site and may be impacted by the development.

## **5. Amphibians**

Only six amphibian species have been recorded from the area, which can likely be attributed to the lack of freshwater resources in the area. Although there are numerous pans in the wider area, many of these are quite saline and not suitable for amphibians. Within the affected area, there are no natural perennial freshwater features present with the result that majority of species present are likely to be species that are relatively independent of water. This would include the Sand Rain Frog, Cape Sand Frog and Raucous Toad. Species associated with natural or man-made freshwater features in the area includes the Clicking Stream Frog and Cape River Frog. The only listed species present in the area is the Cape Caco (NT), which is associated with shallow seasonal pans and is highly unlikely to be present within the affected area.

## **6. Avifauna**

Based on the SABAP 2 database, a total of 118 bird species have been recorded from the pentad that includes the site. Common and ubiquitous species present in the area include Yellow Canary, Pied Crow, Common Fiscal, Speckled Pigeon, Karoo Prinia, Cape Sparrow, Common Starling, Southern Double-Collared Sunbird, Cape Weaver, Bokmakierie, Cape Bulbul, Rock Kestrel and Karoo Scrub-robin. A number of listed species are known from the area including Secretarybird (VU), African Marsh-harrier (EN), Lanner Falcon (VU), Southern Black Korhaan (VU), Black Harrier (EN), Blue Crane (VU), Ludwig's Bustard (EN), Lesser Flamingo (NT) and Greater Flamingo (NT). Although not all of these species would occur within the site due to a lack of favourable habitat, several of the listed species are vulnerable to collisions or electrocution associated with power line infrastructure and specific measures will need to be implemented to mitigate and avoid these impacts. Although bird flight diverters and other mitigation can significantly reduce impacts of power line infrastructure on avifauna, these measures are not 100% effective and some residual impact on collision-vulnerable species is likely to persist.

## **7. Conclusions & Recommendations**

The faunal communities in the wider area around the site are quite diverse and includes at least some listed species from each faunal group. The majority of the affected area is however transformed and the diversity of fauna actually resident within the site would be fairly low and largely restricted to disturbance-tolerant species. Avifauna and reptiles are likely to be of particular concern due to the relatively high numbers of species of conservation concern that occur in the

region. As the project will involve the construction of overhead power lines, the potential impact on susceptible avifauna is highlighted as a significant potential impact associated with the project. It is however likely that mitigation and avoidance measures can reduce all potential impacts to an acceptable level. As such, there are no clear fatal flaws associated with the development and it should be allowed to proceed to the EIA phase. A plan of study for the EIA phase is outlined below and places emphasis on the identification and mapping of sensitive features and faunal surveys to assess the presence and use of the affected area by fauna of concern.

## **8. Plan of Study for EIA Phase**

- Validate the faunal communities present within the affected area through trapping, searches, surveys and other appropriate measures to better quantify the faunal communities present.
- Identify any features or areas of significance for fauna within or near the site, including remnant habitat patches, movement or migration pathways and important foraging areas.
- Identify and map any no-go and high sensitivity areas that should be avoided by the development.
- Assess the likely impacts of the development on fauna, based on the final layout of the development and identified features and species of concern.
- Identify and describe any mitigation and avoidance measures that should be included in the EMPr for the development.