

PLANT RESCUE AND PROTECTION PLAN

1. PURPOSE

The purpose of the Search and Rescue and Protection Plan is to implement avoidance and mitigation measures, in addition to the mitigations included in the Environmental Management Programme (EMPr) to reduce the impact of the establishment of the Zionsheuvél Solar PV Facility on listed and protected plant species and their habitats during construction and operation. This subplan is required in order to ensure compliance with national and provincial legislation for vegetation clearing and any required destruction or translocation of provincially and nationally protected species within the development area and grid connection corridor.

The Plan first provides some legislative background on the regulations relevant to listed and protected species, under the Threatened or Protected Species (TOPS) Regulations, Northern Cape Nature Conservation act no. 9 of 2009, Northern Cape Planning and Development Act no. 7 of 1998 and Northern Cape Critical Biodiversity Area 2017, and trees protected under the National Forests Act: List of Protected Tree Species. This is followed by an identification of protected species present within the development area and actions that should be implemented to minimise impact on these species and comply with legislative requirements.

2. IDENTIFICATION OF SPECIES OF CONSERVATION CONCERN

In accordance with the National Red List of South African Plants website, managed and maintained by the South African National Biodiversity Institute (SANBI), a Species of Conservation Concern (SCC) is a species that has a high conservation importance in terms of preserving South Africa's rich biodiversity. South Africa uses the internationally endorsed International Union for Conservation of Nature (IUCN) Red List Categories and Criteria (IUCN, 2012). This scientific system is designed to measure species' risk of extinction and its purpose is to highlight those species that are in need of critical conservation action. As this system has been adopted from the IUCN, the definition of an SCC as described and categorised above is extended to all red list classifications relevant to fauna as well as the IUCN categories, for the purposes of this report.

3. IDENTIFICATION OF LISTED SPECIES

Protected species include both flora and fauna species that are protected according to some form of relevant legislation, be it provincial, national, or international. Provincial legislation may include that published in the form of a provincial ordinance, bill, or act, and national legislation includes that which is published in terms of the National Environmental Management: Biodiversity Act (Act No. 10 of 2004) or the National Forests Act (Act No. 84 of 1998). Relevant international legislation includes the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES, 2021).

A Terrestrial Ecology Impact Assessment has been undertaken as part of the EIA Process (refer to **Appendix D** of the EIA Report). The assessment did not identify any red data plant species listed under the Red List of South African plants (SANBI, 2016) which occur frequently within the development area and grid connection corridor.

4. MITIGATION & AVOIDANCE OPTIONS

The primary mitigation and avoidance measure that must be implemented at the pre-construction phase is the pre-construction walk-through of the development area and grid connection corridor. This defines which and how many individuals of listed and protected species are found within the development area and grid connection corridor. This information is required for the permits which must be obtained before construction can commence.

Where listed species fall within the development area and avoidance is not possible, then it may be possible to translocate the affected individuals outside of the development area and grid connection corridor. However, not all species are suitable for translocation as only certain types of plants are able to survive the disturbance. Suitable candidates for translocation include most geophytes and succulents. Although there are exceptions, the majority of woody species do not survive translocation well and it is generally not recommended to try and attempt to translocate such species. Recommendations in this regard would be made following the walk-through of the development area and grid connection corridor before construction, where all listed and protected species within the development area will be identified and located.

5. RESCUE AND PROTECTION PLAN

5.1. Pre-construction

- » Identification of all listed species which may occur within the development area and grid connection corridor, based on the South African National Biodiversity Institute (SANBI) POSA database as well as the specialist study for the development area and grid connection corridor and any other relevant literature.
- » Before construction commences at the development area and grid connection corridor, the following actions should be taken:
 - A walk-through of the development area and grid connection corridor by a suitably qualified botanist/ecologist to locate and identify all listed and protected species that fall within the project area. This should happen during the flowering season at the development area and grid connection corridor which, depending on rainfall, is likely to be during spring to early summer (August-October).
 - A walk-through report following the walk-through which identifies areas where minor deviations to roads and other infrastructure can be made to avoid sensitive areas and important populations of listed species must be compiled. The report should also contain a full list of localities where listed species occur within the development area and grid connection corridor and the number of affected individuals in each instance so that this information can be used to comply with the permit conditions required by the relevant legislation. Those species suitable for search as rescue should be identified in the walk-through report.
 - A permit to clear the site and relocate species of concern is required from the Department of Forestry, Fisheries and Environment (DFFE) before construction commences as well as a tree clearing permit to clear protected trees from the site.
 - Once the permits have been issued, there should be a search and rescue operation of all listed species that cannot be avoided, which have been identified in the walk-through report as being suitable for search and rescue within the development area and grid connection corridor. Affected individuals should be translocated to a similar habitat outside of the development area and grid connection corridor and marked for monitoring purposes.

5.2. Construction

- » Vegetation clearing should take place in a phased manner so that large cleared areas are not left standing with no activity for long periods of time and pose a wind and water erosion risk. This will require coordination between the contractor and Environmental Officer (EO), to ensure that the EO is able to monitor activities appropriately.
- » All cleared material should be handled according to the Revegetation and Rehabilitation Plan and used to encourage the recovery of disturbed areas.
- » The EO should monitor vegetation clearing at the development area and grid connection corridor. Any deviations from the plans that may be required should first be checked for listed species by the EO and any listed species present which are able to survive translocation should be translocated to a safe site.
- » All areas to be cleared should be demarcated with construction tape, survey markers or similar. All construction vehicles should work only within the designated area.
- » Plants suitable for translocation or for use in the rehabilitation of already cleared areas should be identified and relocated before general clearing takes place.
- » Any listed species observed within the development area and grid connection corridor that were missed during the pre-construction plant sweeps should be translocated to a safe site before clearing commences.
- » Many listed species are also sought after for traditional medicine or by collectors and so the EO and Environmental Control Officer (ECO) should ensure that all staff attend environmental induction training in which the legal and conservation aspects of harvesting plants from the wild are discussed.
- » The EO should monitor construction activities in sensitive habitats such as in dune areas carefully to ensure that impacts to these areas are minimised.

5.3. Operation

- » Access to the development area should be strictly controlled and all personnel entering or leaving the development area should be required to sign in and out with the security officers.
- » The collecting of plants or their parts should be strictly forbidden and signs stating so should be placed at the entrance gates to the development area.

6. MONITORING & REPORTING REQUIREMENTS

The following reporting and monitoring requirements are recommended as part of the plant rescue and protection plan:

- » Pre-construction walk-through report detailing the location and distribution of all listed and protected species must be compiled. This should include a walk-through of all infrastructure including all new access roads, cables, buildings and substations. The report should include recommendations of route adjustments where necessary, as well as provide a full account of how many individuals of each listed species will be impacted by the development. Details of plants suitable for search and rescue must also be included.
- » Permit applications to DFFE. This requires the walk-through report as well as the identification and quantification of all listed and protected species within the development area. The permit is required before any search and rescue or vegetation clearance can take place. Where large numbers of listed species are affected, a site inspection and additional requirements may be imposed by DFFE as part of the permit conditions. All documentation associated with this process needs to be retained and the final clearing permit should be kept at the development area.
- » Active daily monitoring of clearing during construction by the EO must be undertaken to ensure that listed species and sensitive habitats are avoided. All incidents should be recorded along with the remedial measures implemented.

- » Post-construction monitoring of plants translocated during search and rescue to evaluate the success of the intervention. Monitoring for a year post-transplant should be sufficient to gauge success.

