HUMANSRUS SOLAR 3 ENERGY FACILITY:

PLANT RESCUE & PROTECTION PLAN

PRODUCED FOR CAPE EAPRAC

ON BEHALF OF HUMANSRUS SOLAR 3 (PTY) LTD

BY

SIMON TODD CONSULTING

Simon.Todd@3foxes.co.za

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PLANT RESCUE AND PROTECTION PLAN: BACKGROUND & OBJECTIVES

The purpose of the plant rescue and protection plan is to implement avoidance and mitigation measures to reduce the impact of the development of the Humansrus Solar 3 PV Facility on listed and protected plant species and their habitats.

IDENTIFICATION OF SPECIES OF CONSERVATION CONCERN

The ToPS (Threatened and Protected Species) regulations provide for the regulation of activities which may directly or indirectly impact threatened and protected species. Such species are identified under NEMBA as well as by the National Red Data List of Plants. At a provincial level, the Northern Cape Nature Conservation Act (2009) also provides lists of species which are protected within the province. Species listed under the National Red Data List of Plants as well as those protected under the provincial legislation must be specified on permit applications required for site clearing. The only protected species observed at the site were *Boscia foetida* and *Titanopsis calcarea*, but other protected species that have been observed in the wider area which may be present at the site includes *Hoodia gordonii*, *Hoodia flava*, *Lithops halli*, *Pachypodium succulentum*, *Mestoklema tuberosum*, *Aloe claviflora* and *Avonia ustulata*. The presence of these as well as any other protected species would need to be confirmed during a preconstruction walk-through of the facility.

MITIGATION & AVOIDANCE OPTIONS

Where listed plant species fall within the development footprint and avoidance is not possible, then it may be possible to translocate the affected individuals outside of the development footprint. 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 facility footprint before construction, where all listed and protected species within the development footprint will be identified and located.

RESCUE AND PROTECTION PLAN

Preconstruction

- Identification of all listed species which may occur within the site, based on the SANBI SIBIS database as well as the specialist EIA studies for the site and any other relevant literature.

Before construction commences at the site, the following actions should be taken:

- A walk-through of the final development footprint by a suitably qualified botanist/ecologist to locate and identify all listed and protected species which fall within the development footprint. This would need to happen during the peak flowering season at the site which depending on rainfall is likely to be during late summer to autumn (March-April).
- 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. The report should also contain a full list of localities where listed species occur within the development footprint 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 authorization as well as provincial requirements.
- Search and rescue operation of all listed species suitable for translocation within the development footprint that cannot be avoided. Affected individuals should be translocated to a similar habitat outside of the development footprint and marked for monitoring purposes. Those species suitable for search as rescue should be identified in the walk-through report. It is important to note that a permit is required to translocate or destroy any listed and protected species even if they do not leave the property. Some plants can also be offered to national collections such as the National Botanical Gardens, but no plants should be allowed to go to private collectors unless this is approved by the provincial conservation authorities.

Construction Phase

- ECO to monitor vegetation clearing at the site. Any deviations from the plans that may be required should first be checked for listed species by the ECO and any listed species present which are able to survive translocation should be translocated to a safe site.
- Any listed species observed within the development footprint that were missed during the preconstruction plant sweeps should be translocated to a safe site.
- Many listed species are also sought after for traditional medicine or by collectors and so the 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 ECO should monitor construction activities in sensitive habitats such as near rivers and wetlands carefully to ensure that impacts to these areas are minimized.

Operational Phase

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

IDENTIFICATION OF LISTED SPECIES

In this section, the listed species known to occur in the area based on the site visit, other studies in the immediate areas as well as according to the SANBI SIBIS database.

According to the SIBIS database, only two red data-listed plant species are known from the area, *Hoodia gordonii* which is listed as DDD (data deficient, insufficient information) and *Salsola apiciflora* which is listed DDT (Data Deficient – Taxonomically Problematic). There are however a variety of nationally or provincially protected species present in the area which have been observed during previous site visits to the area including *Hoodia gordonii*, *Hoodia flava*, *Lithops halli*, *Titanopsis calcarea*, *Pachypodium succulentum*, *Mestoklema tuberosum*, *Aloe claviflora*, *Avonia ustulata* and *Boscia foetida*.

There are also additional species present which are either protected under the National Forests Act such as *Boscia albitrunca* and *Acacia erioloba* or protected under the Northern Cape Nature Conservation Act of 2009, which includes *Boscia foetida*, all *Mesembryanthemaceae*, all species within the *Euphorbiaceae*, *Amaryllidaceae*, *Asclepiadaceae*, *Oxalidaceae*, *Iridaceae*, all species within the genera *Nemesia*, *Jamesbrittenia* and *Anacampseros*. All protected species within these genera should be identified and located during preconstruction plant sweeps at the site. All species protected under the provincial legislation need to be specified on any clearing permit applications for the site.

MONITORING & REPORTING REQUIREMENTS

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

- Preconstruction walk-through report detailing the location and distribution of all listed and protected species. This should include a walk-through of all infrastructure including all new access roads, PV array areas, underground cables, power line routes, buildings and substations. The report should include recommendations of route adjustments where necessary, as well as provide a full accounting of how many individuals of each listed species will be impacted by the development.
- Monitoring during construction by the ECO 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.