PLANT RESCUE AND PROTECTION PLAN

1. PURPOSE

The purpose of the Geelstert Grid Connection Plant 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 development of the grid connection infrastructure 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 footprint of the development.

The Plan first provides some legislative background on the regulations relevant to listed and protected species, under the Northern Cape Conservation Act (2009) and trees protected under the National List of Protected Tree Species. This is followed by an identification of protected species present within the Geelstert Grid Connection corridor and actions that should be implemented to minimise impact on these species and comply with legislative requirements.

2. IDENTIFICATION OF SPECIES OF CONSERVATION CONCERN

Plant species are protected at the national level as well as the provincial level and different permits may be required for different species depending on their protection level. At the national level, protected trees are listed by DEFF under the National List of Protected Trees, which is updated on a regular basis. Any clearing of nationally protected trees requires a permit from DAFF. At the provincial level, all species red-listed under the Red List of South African plants (http://redlist.sanbi.org/) as well as species listed under the Northern Cape Nature Conservation Act (No. 9 of 2009) are protected and require provincial permits. The Northern Cape Conservation Act lists a variety of species as protected but also several whole families and genera as protected. Of particular relevance to the current study are the following, which are extracted from the legislation and are not intended to provide a comprehensive list of all protected species, only those which are likely to be encountered in the area. The reader is referred to the schedules of the Act for a full list of species listed under the act.

Under the Northern Cape Nature Conservation Act (No. 9 of 2009), the following are highlighted as potentially being present around the surrounding area.

Schedule 2 Protected Flora

- Family AIZOACACEAE – *Conophytum ficiforme and Lithops julii subsp. fulleri*
- Family CAPPARACEAE – *Boscia foetida subsp. foetida*
- Family APOCYNACEAE – *Hoodia gordonii*

A full list of plant species known from the study area around the Geelstert Grid Connection Corridor is provided in Annex 1.

3. IDENTIFICATION OF LISTED SPECIES

In this section, the listed species observed to occur within the broader area are identified and listed below. Those present and the number affected within the development footprint would be clarified following the preconstruction walk-through. The list is not considered exhaustive and additional species may be observed to be present during the pre-construction walk-through, which should be conducted at a favourable time of the year, such that there is a maximal chance of picking up geophytes and other species which may not be easily observed at other times of the year.

Family	Species	IUCN Status	NC Status
CAPPARACEAE	*Boscia foetida subsp. foetida*	LC	Schedule 2
APOCYNACEAE	*Hoodia gordonii*	LC	Schedule 2
AZOACEAE	*Lithops julii subsp fulleri*	LC	Schedule 2
AIZOACEAE	*Conophytum ficiforme*	LC	Schedule 2

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 footprint. This defines which and how many individuals of listed and protected species are found within the development footprint. This information is required for the DEFF and Northern Cape Department of Agriculture, Environmental Affairs, Rural Development and Land Reform permits which must be obtained before construction can commence.

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 development footprint before construction, where all listed and protected species within the development footprint will be identified and located.

5. RESCUE AND PROTECTION PLAN

5.1. Pre-construction

» Identification of all listed species which may occur within the corridor/development footprint, based on the SANBI POSA database as well as the specialist BA studies for the site and any other relevant literature.
» Before construction commences, 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 should happen during the flowering season at the site 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. 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 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 Northern Cape Department of Agriculture, Environmental Affairs, Rural Development and Land Reform before construction commences. A tree clearing permit is also required from DEFF 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 footprint. Affected individuals should be translocated to a similar habitat outside of the development footprint 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 EO, to ensure that the EO is able to monitor activities appropriately.
» All cleared material must be handled accordingly and used to encourage the recovery of disturbed areas.
» EO to monitor vegetation clearing in the development footprint. 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 rehabilitation of already cleared areas should be identified and relocated before general clearing takes place.
» Any listed species observed within the development footprint that were missed during the pre-construction plant sweeps must 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 ECO must 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 must 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 site should be strictly controlled and all personnel entering or leaving the site must be required to sign in and out with the security officers.
» The collecting of plants of their parts must be strictly forbidden and signs stating so must be placed at the entrance gates to the site.

6. MONITORING AND 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. This must include a walk-through of all infrastructure including all new access roads and the substation. The report must 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 NC-DAEARD&LR and DEFF. This requires the walk-through report as well as the identification and quantification of all listed and protected species within the development footprint. 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 NC-DAEARD&LR and/or DEFF as part of the permit conditions. All documentation associated with this process needs to be retained and the final clearing permit must be kept at the site.
- Active daily monitoring of clearing during construction by the EO to ensure that listed species and sensitive habitats are avoided. All incidents must 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.

ANNEX 1. LIST OF PLANT SPECIES

List of plant species known from the broad area around the Geelstert Grid Connection corridor, based on observations from the site as well as the SANBI SIBIS database.

Family	Species	IUCN	Family	Species	IUCN
ACANTHACEAE	*Acanthopsis hoffmannseggiana*	LC	ACANTHACEAE	*Barleria rigida*	LC
ACANTHACEAE	*Blepharis mitrata*	LC	ACANTHACEAE	*Justicia thymifolia*	LC
ACANTHACEAE	*Monechma mollissimum*	LC	ACANTHACEAE	*Monechma spartioides*	LC
ACANTHACEAE	*Petalidium setosum*	LC	AIZOACEAE	*Aizoon asbestinum*	LC
AIZOACEAE	*Galenia africana*	LC	AIZOACEAE	*Galenia crystallina var. crystallina*	LC
AIZOACEAE	*Galenia fruticosa*	LC	AIZOACEAE	*Galenia papulosa*	LC
AIZOACEAE	*Galenia sarcophylla*	LC	AIZOACEAE	*Tetragonia arbuscula*	LC
AIZOACEAE	*Tetragonia reduplicata*	LC	AIZOACEAE	*Trianthema parvifolia var. parvifolia*	LC
AMARANTHACEAE	*Amaranthus praetermissus*	LC	AMARANTHACEAE	*Hermbstaedtia glauca*	LC
AMARANTHACEAE	*Sericocoma avolans*	LC	AMARYLLIDACEAE	*Brunsvigia comptonii*	LC
AMARYLLIDACEAE	*Brunsvigia herrei*	VU	AMARYLLIDACEAE	*Brunsvigia namaquana*	DDT
AMARYLLIDACEAE	*Hessea speciosa*	LC	ANACARDIACEAE	*Ozoroa dispar*	LC
ANACARDIACEAE	*Searsia burchellii*	LC	ANACARDIACEAE	*Searsia populifolia*	LC
APOCYNACEAE	*Fockea comaru*	LC	APOCYNACEAE	*Hoodia alstonii*	LC
APOCYNACEAE	*Hoodia gordonii*	DDD	APOCYNACEAE	*Microloma incanum*	LC
APOCYNACEAE	*Microloma sagittatum*	LC	APOCYNACEAE	*Pachypodium namaquanum*	LC
APOCYNACEAE	*Sarcostemma pearsonii*	LC	APOCYNACEAE	*Stapelia similis*	LC
ASPARAGACEAE	*Asparagus capensis var. capensis*	LC	ASPHODELACEAE	*Haworthia venosa subsp. tessellata*	LC
ASPHODELACEAE	*Trachyandra jacquiniana*	LC	ASPHODELACEAE	*Trachyandra laxa var. laxa*	LC
ASTERACEAE	*Arctotis erosa*	LC	ASTERACEAE	*Arctotis hirsuta*	LC
ASTERACEAE	*Arctotis leiocarpa*	LC	ASTERACEAE	*Berkheya canescens*	LC
ASTERACEAE	*Berkheya fruticosa*	LC	ASTERACEAE	*Berkheya spinosissima subsp. spinosissima*	LC
ASTERACEAE	*Cineraria canescens var. canescens*	LC	ASTERACEAE	*Dicoma capensis*	LC
ASTERACEAE	*Didelta carnosa var. carnosa*	LC	ASTERACEAE	*Dimorphotheca polyptera*	LC
ASTERACEAE	*Dimorphotheca sinuata*	LC	ASTERACEAE	*Eriocephalus ambiguus*	LC
ASTERACEAE	*Eriocephalus microphyllus var. pubescens*	LC	ASTERACEAE	*Eriocephalus scariosus*	LC
ASTERACEAE	*Eriocephalus spinescens*	LC	ASTERACEAE	*Euryops multifidus*	LC
ASTERACEAE	*Euryops subcarnosus subsp. vulgaris*	LC	ASTERACEAE	*Felicia hirsuta*	LC

ASTERACEAE	*Felicia muricata subsp. muricata*	LC	ASTERACEAE	*Felicia namaquana*	LC
ASTERACEAE	*Foveolina dichotoma*	LC	ASTERACEAE	*Gazania lichtensteinii*	LC
ASTERACEAE	*Geigeria pectidea*	LC	ASTERACEAE	*Geigeria vigintisquamea*	LC
ASTERACEAE	*Gorteria corymbosa*	LC	ASTERACEAE	*Gorteria diffusa subsp. diffusa*	LC
ASTERACEAE	*Gymnodiscus linearifolia*	LC	ASTERACEAE	*Helichrysum herniarioides*	LC
ASTERACEAE	*Helichrysum micropoides*	LC	ASTERACEAE	*Helichrysum pulchellum*	LC
ASTERACEAE	*Helichrysum pumilio subsp. pumilio*	LC	ASTERACEAE	*Helichrysum tomentosulum subsp. aromaticum*	LC
ASTERACEAE	*Helichrysum zeyheri*	LC	ASTERACEAE	*Hirpicium alienatum*	LC
ASTERACEAE	*Hirpicium echinus*	LC	ASTERACEAE	*Hirpicium integrifolium*	LC
ASTERACEAE	*Ifloga molluginoides*	LC	ASTERACEAE	*Kleinia cephalophora*	LC
ASTERACEAE	*Kleinia longiflora*	LC	ASTERACEAE	*Nidorella resedifolia subsp. resedifolia*	LC
ASTERACEAE	*Oncosiphon piluliferum*	LC	ASTERACEAE	*Osteospermum karrooicum*	LC
ASTERACEAE	*Osteospermum muricatum subsp. muricatum*	LC	ASTERACEAE	*Osteospermum pinnatum var. pinnatum*	LC
ASTERACEAE	*Othonna abrotanifolia*	LC	ASTERACEAE	*Othonna arbuscula*	LC
ASTERACEAE	*Othonna furcata*	LC	ASTERACEAE	*Othonna sedifolia*	LC
ASTERACEAE	*Pegolettia retrofracta*	LC	ASTERACEAE	*Pentzia argentea*	LC
ASTERACEAE	*Pentzia globosa*	LC	ASTERACEAE	*Pentzia lanata*	LC
ASTERACEAE	*Pteronia glauca*	LC	ASTERACEAE	*Pteronia glomerata*	LC
ASTERACEAE	*Pteronia mucronata*	LC	ASTERACEAE	*Pteronia scariosa*	LC
ASTERACEAE	*Pteronia sordida*	LC	ASTERACEAE	*Pteronia unguiculata*	LC
ASTERACEAE	*Senecio bulbinifolius*	LC	ASTERACEAE	*Senecio eenii*	LC
ASTERACEAE	*Senecio niveus*	LC	ASTERACEAE	*Senecio pinguifolius*	LC
ASTERACEAE	*Senecio sarcoides*	LC	ASTERACEAE	*Senecio sisymbriifolius*	LC
ASTERACEAE	*Tripteris aghillana var. aghillana*	LC	ASTERACEAE	*Tripteris sinuata var. sinuata*	LC
ASTERACEAE	*Ursinia nana subsp. nana*	LC	ASTERACEAE	*Ursinia speciosa*	LC
ASTERACEAE	*Vernonia obionifolia subsp. obionifolia*	LC	BIGNONIACEAE	*Rhigozum trichotomum*	LC
BORAGINACEAE	*Codon royenii*	LC	BORAGINACEAE	*Heliotropium tubulosum*	LC
BORAGINACEAE	*Trichodesma africanum*	LC	BRASSICACEAE	*Heliophila carnosa*	LC
BRASSICACEAE	*Heliophila deserticola var. deserticola*	LC	BRASSICACEAE	*Heliophila deserticola var. micrantha*	LC
BRASSICACEAE	*Heliophila lactea*	LC	BRASSICACEAE	*Heliophila trifurca*	LC
BRASSICACEAE	*Lepidium trifurcum*	LC	BURSERACEAE	*Commiphora gracilifrondosa*	LC
CAMPANULACEAE	*Wahlenbergia meyeri*	LC	CAMPANULACEAE	*Wahlenbergia prostrata*	LC

CAPPARACEAE	*Boscia foetida subsp. foetida*	LC	CAPPARACEAE	*Cleome paxii*	LC
CARYOPHYLLACEAE	*Dianthus micropetalus*	LC	CARYOPHYLLACEAE	*Dianthus namaensis var. dinteri*	LC
CHENOPODIACEAE	*Salsola kalaharica*	LC	CHENOPODIACEAE	*Salsola rabieana*	LC
CHENOPODIACEAE	*Salsola tuberculata*	LC	COLCHICACEAE	*Ornithoglossum dinteri*	LC
COLCHICACEAE	*Ornithoglossum vulgare*	LC	CRASSULACEAE	*Adromischus diabolicus*	Rare
CRASSULACEAE	*Adromischus nanus*	LC	CRASSULACEAE	*Cotyledon orbiculata var. oblonga*	LC
CRASSULACEAE	*Cotyledon orbiculata var. orbiculata*	LC	CRASSULACEAE	*Crassula brevifolia subsp. brevifolia*	LC
CRASSULACEAE	*Crassula campestris*	LC	CRASSULACEAE	*Crassula corallina subsp. macrorrhiza*	LC
CRASSULACEAE	*Crassula cotyledonis*	LC	CRASSULACEAE	*Crassula deltoidea*	LC
CRASSULACEAE	*Crassula exilis subsp. exilis*	Rare	CRASSULACEAE	*Crassula exilis subsp. sedifolia*	LC
CRASSULACEAE	*Crassula garibina subsp. garibina*	LC	CRASSULACEAE	*Crassula macowaniana*	LC
CRASSULACEAE	*Crassula muscosa var. muscosa*	LC	CRASSULACEAE	*Crassula sericea var. sericea*	LC
CRASSULACEAE	*Crassula subaphylla var. subaphylla*	LC	CRASSULACEAE	*Crassula tenuipedicellata*	LC
CRASSULACEAE	*Crassula tomentosa var. glabrifolia*	LC	CRASSULACEAE	*Tylecodon reticulatus subsp. phyllopodium*	LC
CRASSULACEAE	*Tylecodon reticulatus subsp. reticulatus*	LC	CRASSULACEAE	*Tylecodon rubrovenosus*	LC
CUCURBITACEAE	*Coccinia rehmannii*	LC	CUCURBITACEAE	*Corallocarpus dissectus*	LC
CUCURBITACEAE	*Cucumis rigidus*	LC	CUCURBITACEAE	*Trochomeria debilis*	LC
CYPERACEAE	*Cyperus indecorus var. namaquensis*	LC	CYPERACEAE	*Isolepis hemiuncialis*	LC
EBENACEAE	*Diospyros austro-africana var. rubriflora*	LC	EBENACEAE	*Diospyros ramulosa*	LC
EUPHORBIACEAE	*Euphorbia dregeana*	LC	EUPHORBIACEAE	*Euphorbia gariepina subsp. gariepina*	LC
EUPHORBIACEAE	*Euphorbia mauritanica var. mauritanica*	LC	EUPHORBIACEAE	*Euphorbia spinea*	LC
FABACEAE	*Acacia erioloba*	Declining	FABACEAE	*Crotalaria meyeriana*	LC
FABACEAE	*Crotalaria pearsonii*	Rare	FABACEAE	*Crotalaria virgultalis*	LC
FABACEAE	*Indigastrum argyroides*	LC	FABACEAE	*Indigofera pechuelii*	LC
FABACEAE	*Lessertia depressa*	LC	FABACEAE	*Lotononis falcata*	LC
FABACEAE	*Lotononis fruticoides*	LC	FABACEAE	*Lotononis platycarpa*	LC
FABACEAE	*Lotononis rabenaviana*	LC	FABACEAE	*Melolobium microphyllum*	LC
FABACEAE	*Parkinsonia africana*	LC	FABACEAE	*Pomaria lactea*	LC
FABACEAE	*Requienia sphaerosperma*	LC	FABACEAE	*Tephrosia dregeana var. dregeana*	LC

FABACEAE	*Tephrosia limpopoensis*	LC	GERANIACEAE	*Monsonia parvifolia*	LC
GERANIACEAE	*Pelargonium carnosum subsp. carnosum*	LC	GERANIACEAE	*Pelargonium crithmifolium*	LC
GERANIACEAE	*Pelargonium spinosum*	LC	GERANIACEAE	*Pelargonium xerophyton*	LC
GERANIACEAE	*Sarcocaulon crassicaule*	LC	GISEKIACEAE	*Gisekia africana var. africana*	LC
HYACINTHACEAE	*Albuca namaquensis*	LC	HYACINTHACEAE	*Albuca setosa*	LC
HYACINTHACEAE	*Albuca spiralis*	LC	HYACINTHACEAE	*Daubenya namaquensis*	Thr*
HYACINTHACEAE	*Dipcadi gracillimum*	LC	HYACINTHACEAE	*Drimia intricata*	LC
HYACINTHACEAE	*Lachenalia polypodantha*	Rare	HYACINTHACEAE	*Lachenalia undulata*	LC
HYACINTHACEAE	*Massonia bifolia*	LC	HYACINTHACEAE	*Ornithogalum glandulosum*	LC
HYACINTHACEAE	*Ornithogalum pruinosum*	LC	HYACINTHACEAE	*Ornithogalum subcoriaceum*	LC
HYDNORACEAE	*Hydnora africana*	LC	IRIDACEAE	*Ferraria variabilis*	LC
IRIDACEAE	*Gladiolus orchidiflorus*	LC	IRIDACEAE	*Gladiolus saccatus*	LC
IRIDACEAE	*Hesperantha rupicola*	LC	IRIDACEAE	*Lapeirousia littoralis subsp. littoralis*	LC
IRIDACEAE	*Lapeirousia plicata subsp. plicata*	LC	IRIDACEAE	*Moraea unguiculata*	LC
IRIDACEAE	*Tritonia karooica*	LC	LAMIACEAE	*Acrotome pallescens*	LC
LAMIACEAE	*Salvia garipensis*	LC	LAMIACEAE	*Stachys flavescens*	LC
LAMIACEAE	*Stachys rugosa*	LC	MALVACEAE	*Hermannia affinis*	LC
MALVACEAE	*Hermannia confusa*	LC	MALVACEAE	*Hermannia disermifolia*	LC
MALVACEAE	*Hermannia gariepina*	LC	MALVACEAE	*Hermannia minutiflora*	LC
MALVACEAE	*Hermannia spinosa*	LC	MALVACEAE	*Hermannia stricta*	LC
MALVACEAE	*Hermannia tomentosa*	LC	MALVACEAE	*Hermannia vestita*	LC
MALVACEAE	*Hibiscus elliottiae*	LC	MENISPERMACEAE	*Antizoma miersiana*	LC
MESEMBRYANTHEMACEAE	*Antimima tuberculosa*	LC	MESEMBRYANTHEMACEAE	*Arenifera stylosa*	LC
MESEMBRYANTHEMACEAE	*Aridaria noctiflora subsp. straminea*	LC	MESEMBRYANTHEMACEAE	*Aspazoma amplectens*	LC
MESEMBRYANTHEMACEAE	*Brownanthus arenosus*	LC	MESEMBRYANTHEMACEAE	*Brownanthus nucifer*	LC
MESEMBRYANTHEMACEAE	*Brownanthus schenckii*	LC	MESEMBRYANTHEMACEAE	*Cephalophyllum fulleri*	Rare
MESEMBRYANTHEMACEAE	*Cephalophyllum parvibracteatum*	LC	MESEMBRYANTHEMACEAE	*Cephalophyllum staminodiosum*	Rare
MESEMBRYANTHEMACEAE	*Cheiridopsis denticulata*	LC	MESEMBRYANTHEMACEAE	*Conicosia elongata*	LC
MESEMBRYANTHEMACEAE	*Conophytum burgeri*	EN	MESEMBRYANTHEMACEAE	*Conophytum calculus subsp. vanzylii*	LC
MESEMBRYANTHEMACEAE	*Conophytum limpidum*	NT	MESEMBRYANTHEMACEAE	*Conophytum marginatum subsp. haramoepense*	LC
MESEMBRYANTHEMACEAE	*Conophytum maughanii subsp. maughanii*	LC	MESEMBRYANTHEMACEAE	*Conophytum praesectum*	LC

MESEMBRYANTHEMACEAE	*Conophytum ratum*	VU	MESEMBRYANTHEMACEAE	*Conophytum tantillum subsp. eenkokerense*	Rare
MESEMBRYANTHEMACEAE	*Delosperma subincanum*	LC	MESEMBRYANTHEMACEAE	*Dinteranthus puberulus*	LC
MESEMBRYANTHEMACEAE	*Drosanthemum albens*	LC	MESEMBRYANTHEMACEAE	*Drosanthemum breve*	DDT
MESEMBRYANTHEMACEAE	*Drosanthemum godmaniae*	DDT	MESEMBRYANTHEMACEAE	*Drosanthemum hispidum*	LC
MESEMBRYANTHEMACEAE	*Drosanthemum karrooense*	LC	MESEMBRYANTHEMACEAE	*Drosanthemum lique*	LC
MESEMBRYANTHEMACEAE	*Drosanthemum luederitzii*	LC	MESEMBRYANTHEMACEAE	*Drosanthemum subcompressum*	LC
MESEMBRYANTHEMACEAE	*Ebracteola fulleri*	LC	MESEMBRYANTHEMACEAE	*Hereroa pallens*	LC
MESEMBRYANTHEMACEAE	*Hereroa teretifolia*	LC	MESEMBRYANTHEMACEAE	*Ihlenfeldtia excavata*	LC
MESEMBRYANTHEMACEAE	*Ihlenfeldtia vanzylii*	LC	MESEMBRYANTHEMACEAE	*Lapidaria margaretae*	LC
MESEMBRYANTHEMACEAE	*Lithops julii subsp. fulleri*	LC	MESEMBRYANTHEMACEAE	*Lithops olivacea*	VU
MESEMBRYANTHEMACEAE	*Mesembryanthemum crystallinum*	LC	MESEMBRYANTHEMACEAE	*Mesembryanthemum guerichianum*	LC
MESEMBRYANTHEMACEAE	*Phyllobolus latipetalus*	LC	MESEMBRYANTHEMACEAE	*Phyllobolus lignescens*	LC
MESEMBRYANTHEMACEAE	*Phyllobolus oculatus*	LC	MESEMBRYANTHEMACEAE	*Prenia tetragona*	LC
MESEMBRYANTHEMACEAE	*Psilocaulon articulatum*	LC	MESEMBRYANTHEMACEAE	*Psilocaulon coriarium*	LC
MESEMBRYANTHEMACEAE	*Psilocaulon subnodosum*	LC	MESEMBRYANTHEMACEAE	*Ruschia aggregata*	DDT
MESEMBRYANTHEMACEAE	*Ruschia centrocapsula*	LC	MESEMBRYANTHEMACEAE	*Ruschia cradockensis subsp. triticiformis*	LC
MESEMBRYANTHEMACEAE	*Ruschia divaricata*	LC	MESEMBRYANTHEMACEAE	*Ruschia kenhardtensis*	LC
MESEMBRYANTHEMACEAE	*Ruschia muricata*	LC	MESEMBRYANTHEMACEAE	*Ruschia robusta*	LC
MESEMBRYANTHEMACEAE	*Ruschia spinosa*	LC	MESEMBRYANTHEMACEAE	*Schwantesia marlothii*	LC
MESEMBRYANTHEMACEAE	*Schwantesia ruedebuschii*	LC	MESEMBRYANTHEMACEAE	*Stomatium fulleri*	LC
MESEMBRYANTHEMACEAE	*Trichodiadema littlewoodii*	LC	MESEMBRYANTHEMACEAE	*Trichodiadema obliquum*	DDT
MOLLUGINACEAE	*Hypertelis salsoloides var. salsoloides*	LC	MOLLUGINACEAE	*Limeum aethiopicum var. intermedium*	LC
MOLLUGINACEAE	*Limeum arenicolum*	LC	MOLLUGINACEAE	*Limeum myosotis var. myosotis*	LC
MOLLUGINACEAE	*Pharnaceum croceum*	LC	MOLLUGINACEAE	*Pharnaceum viride*	LC
MOLLUGINACEAE	*Psammotropha obtusa*	LC	MOLLUGINACEAE	*Suessenguthiella scleranthoides*	LC
MONTINIACEAE	*Montinia caryophyllacea*	LC	MORACEAE	*Ficus cordata subsp. cordata*	LC
MORACEAE	*Ficus ilicina*	LC	NEURADACEAE	*Grielum humifusum var. humifusum*	LC
NEURADACEAE	*Grielum sinuatum*	LC	OXALIDACEAE	*Oxalis annae*	LC
PEDALIACEAE	*Rogeria longiflora*	LC	PLUMBAGINACEAE	*Dyerophytum africanum*	LC
POACEAE	*Aristida adscensionis*	LC	POACEAE	*Aristida congesta subsp. congesta*	LC
POACEAE	*Aristida diffusa subsp. burkei*	LC	POACEAE	*Aristida engleri var. engleri*	LC

POACEAE	*Brachiaria glomerata*	LC	POACEAE	*Cenchrus ciliaris*	LC
POACEAE	*Cladoraphis spinosa*	LC	POACEAE	*Ehrharta calycina*	LC
POACEAE	*Ehrharta pusilla*	LC	POACEAE	*Enneapogon cenchroides*	LC
POACEAE	*Enneapogon desvauxii*	LC	POACEAE	*Enneapogon scaber*	LC
POACEAE	*Eragrostis nindensis*	LC	POACEAE	*Fingerhuthia africana*	LC
POACEAE	*Leucophrys mesocoma*	LC	POACEAE	*Panicum arbusculum*	LC
POACEAE	*Schmidtia kalahariensis*	LC	POACEAE	*Stipagrostis amabilis*	LC
POACEAE	*Stipagrostis anomala*	LC	POACEAE	*Stipagrostis brevifolia*	LC
POACEAE	*Stipagrostis ciliata var. capensis*	LC	POACEAE	*Stipagrostis obtusa*	LC
POACEAE	*Stipagrostis uniplumis var. uniplumis*	LC	POLYGALACEAE	*Polygala leptophylla var. armata*	LC
POLYGALACEAE	*Polygala pungens*	LC	POLYGALACEAE	*Polygala seminuda*	LC
PORTULACACEAE	*Anacampseros baeseckei*	LC	PORTULACACEAE	*Anacampseros filamentosa subsp. namaquensis*	LC
PORTULACACEAE	*Avonia albissima*	LC	PORTULACACEAE	*Avonia herreana*	VU
PORTULACACEAE	*Avonia papyracea subsp. namaensis*	LC	PORTULACACEAE	*Avonia papyracea subsp. papyracea*	LC
PORTULACACEAE	*Avonia quinaria subsp. alstonii*	LC	PORTULACACEAE	*Avonia recurvata subsp. recurvata*	LC
PORTULACACEAE	*Ceraria fruticulosa*	LC	PORTULACACEAE	*Ceraria namaquensis*	LC
PORTULACACEAE	*Portulaca kermesina*	LC	RUBIACEAE	*Anthospermum spathulatum subsp. spathulatum*	LC
RUBIACEAE	*Kohautia caespitosa subsp. brachyloba*	LC	SANTALACEAE	*Thesium lineatum*	LC
SAPINDACEAE	*Pappea capensis*	LC	SCROPHULARIACEAE	*Aptosimum procumbens*	LC
SCROPHULARIACEAE	*Aptosimum spinescens*	LC	SCROPHULARIACEAE	*Aptosimum tragacanthoides*	LC
SCROPHULARIACEAE	*Hebenstretia parviflora*	LC	SCROPHULARIACEAE	*Jamesbrittenia aridicola*	LC
SCROPHULARIACEAE	*Jamesbrittenia ramosissima*	LC	SCROPHULARIACEAE	*Manulea nervosa*	LC
SCROPHULARIACEAE	*Peliostomum leucorrhizum*	LC	SCROPHULARIACEAE	*Zaluzianskya diandra*	LC
SCROPHULARIACEAE	*Zaluzianskya sanorum*	LC	SOLANACEAE	*Lycium cinereum*	LC
SOLANACEAE	*Solanum burchellii*	LC	SOLANACEAE	*Solanum giftbergense*	LC
SOLANACEAE	*Solanum namaquense*	LC	URTICACEAE	*Forsskaolea candida*	LC
VERBENACEAE	*Chascanum garipense*	LC	VISCACEAE	*Viscum rotundifolium*	LC
ZYGOPHYLLACEAE	*Augea capensis*	LC	ZYGOPHYLLACEAE	*Sisyndite spartea*	LC
ZYGOPHYLLACEAE	*Tribulus pterophorus*	LC	ZYGOPHYLLACEAE	*Tribulus terrestris*	LC
ZYGOPHYLLACEAE	*Zygophyllum retrofractum*	LC	ZYGOPHYLLACEAE	*Zygophyllum simplex*	LC