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KSP Rehabilitation Management Plan 2025

June 2025

Prepared for
Zutari Pty (Ltd)
on behalf of
Kathu Solar Park Pty
(Ltd)
by
EndemicVision
Environmental Services

Directive

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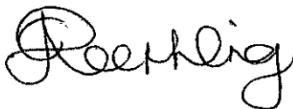
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EndemicVision Environmental Services Pty (Ltd) is a multidisciplinary environmental management and consulting company with more than 20 years of experience in the field. The technical appointments for this project are detailed below

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The author of this report, Chrizette Neethling, does hereby declares that she is an independent consultant on behalf of EV and has no business, financial, personal or other interest in the activity, application or appeal in respect of which she was appointed to be accepted than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances that compromise the objectivity of the specialist performing such work. All opinions expressed in this report are her own.



Signed: **C.D. Neethling**

Dated: **09 June 2025**

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1 Introduction

Kathu Solar Park Pty (Ltd) (KSP) received an Environmental Authorisation (KSP EA) on 03 September 2024 to expand the KSP. The KSP EA requires that an amended environmental management plan be submitted, which will include a rehabilitation management plan.

EndemicVision Environmental Services Pty (Ltd) has been appointed by Zutari Pty (Ltd) to compile a rehabilitation management plan.

2 Assumptions & Limitations

- Assessment of the site was done within a single season, and additional plant species may be found on the site that have not been listed.
- This rehabilitation plan excludes any rehabilitation or closure quantum, and it is assumed that rehabilitation costs will be calculated and sourced from the project or operational budgets.

3 Scope of this report and terms of reference

The scope of this report is to fulfil the rehabilitation plan conditions of the Environmental Authorisation (KSP EA) issued on 05 September 2024 (KSP EA - 14-12-16-3-3-1-2985) as well as the conditions of the KSP Environmental Management Plan Report (KSP EMPR) (Zutari, 09 July 2024).

The development is the proposed Kathu solar PV augmentation facility on Kathu 465 within the Gamagara local municipality, Northern Cape Province.

3.1 KSP EA Rehabilitation commitments

Specifically, the **KSP EA** (section 16.7) requires a re-vegetation and habitat rehabilitation plan to be implemented during the construction and operation of the proposed development. Restoration must be undertaken as soon as possible after completion of construction activities to reduce the amount of habitat converted at any one time and to accelerate the recovery to natural habitats.

The **KSP EMPR** stipulates that this rehabilitation plan must include site-specific top-soil management and monitoring measures.

The KSP EMPR requires rehabilitation during the construction, decommissioning and operational phases of the project. The EMPR further details a rehabilitation section with three clear objectives, which include the minimisation of damage to topsoil and the environment, successful rehabilitation of all damaged areas, and erosion prevention.

During the **construction phase**, all areas shall be monitored for spills and any spills shall be contained, cleaned, and rehabilitated immediately.

During the **decommissioning and rehabilitation phase**, (a) rehabilitation must be completed once the construction camp has been decommissioned; (b) All structure footprints must be rehabilitated and re-vegetated after construction is complete; and (c) the areas within and around the servitude will most likely be disturbed by construction activities and rehabilitation is required to reinstate such areas.

A timeframe is set for the rehabilitation works during the decommissioning phase. All disturbed areas must be successfully rehabilitated three months after the completion of the contract.

During the **operational phase**, rehabilitation monitoring is required, specifically with reference to stormwater management, erosion and alien species establishment.

3.2 KSP Rehabilitation legislative alignment

The objective of the rehabilitation management plan is to **comply with the NEMA Financial Provision Regulations 2015** (GNR1147) by:

- Assessing the environmental risks associated with rehabilitation and closure.
- Establishing rehabilitation and remediation goals and outcomes, which contribute to the gradual achievement of the post-closure land use, closure vision and objectives;
- To establish a plan, schedule, and budget for rehabilitation;

4 Project Area

The KSP expansion project, of approximately 27 hectares, is east of the existing Concentrated Solar-thermal Power (CSP) plant.

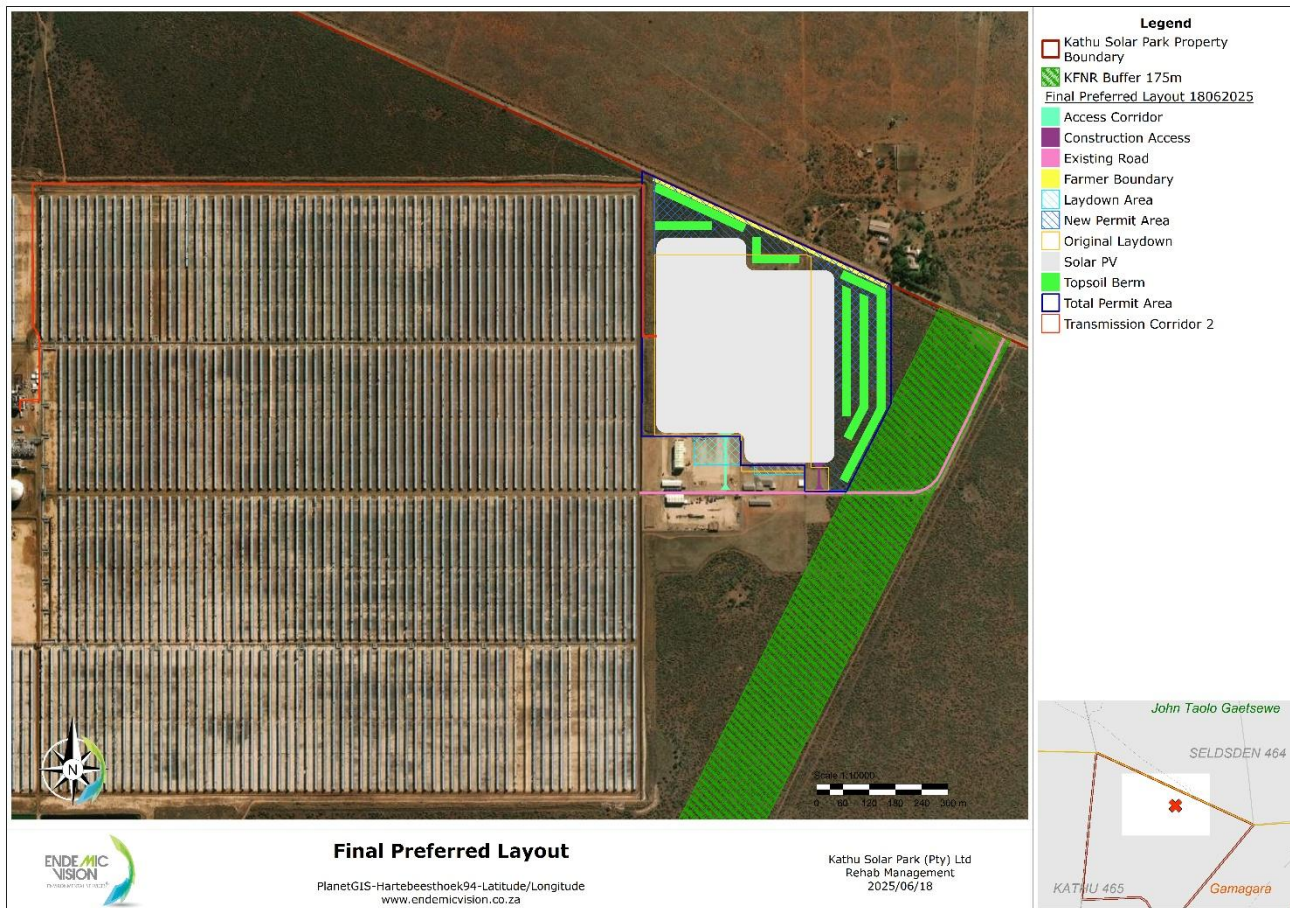


Figure 1: Expansion project layout

5 Environmental baseline

A detailed environmental baseline is presented in the Kathu Solar PV Biodiversity Specialist Assessment Report, 2024 and is not repeated here.

5.1 Land use baseline

The surrounding land uses include extensive game, cattle, sheep and goat grazing.

The farms and land-use surrounding KSP include:

- the Kathu farm on the east, functioning as a biodiversity offset for the existing KSP;
- The Kalahari Golf en Jag Landgoed in the south operates as a game farm;
- The Oupos farm in the north operates as a livestock farming enterprise and
- The Sedibeng pipeline servitude on the western side,
- The Sishen airfield is directly southwest of the servitude.
- The T25 district public dirt road is directly adjacent to the KSP and between the KSP and Oupos farm on the north.

The Department of Agriculture published a general notice on the new long-term grazing capacity for South Africa (GG 41870; Notice No 898; 2018). Carrying capacity indicates that the expected carrying capacity for KSP is 13 LSU/ha.

5.2 Key elements of the specific habitats

The site is situated within the Kathu Bushveld (SVk 12) vegetation type (Mucina and Rutherford, 2006), with two habitat types found on the site, namely Open Woodland and Thicket. Both habitats were originally Bushveld habitats that were altered by human interventions. The open woodland was dozed as a laydown area of the originally approved development

footprint. The Thicket area developed from a veld fire, after which a lack of browsing led to excessive encroachment of this area. Similar areas burnt at the same time, but utilised after the fire, are still Bushveld or Open woodland habitats.

Table 1: Extent of the different habitat types affected by the proposed expansion.

Areas and Descriptions	Original Bushveld area – Now Anthropogenic Open woodland	Bushveld area evolved into Thicket	Total (ha)
	Whole dozed area outside the KSP security fence.	Between T25, KSP, and Biodiversity offset fence line and ephemeral pan and open woodland habitats.	
Planned Footprint	15.25	11.64	27

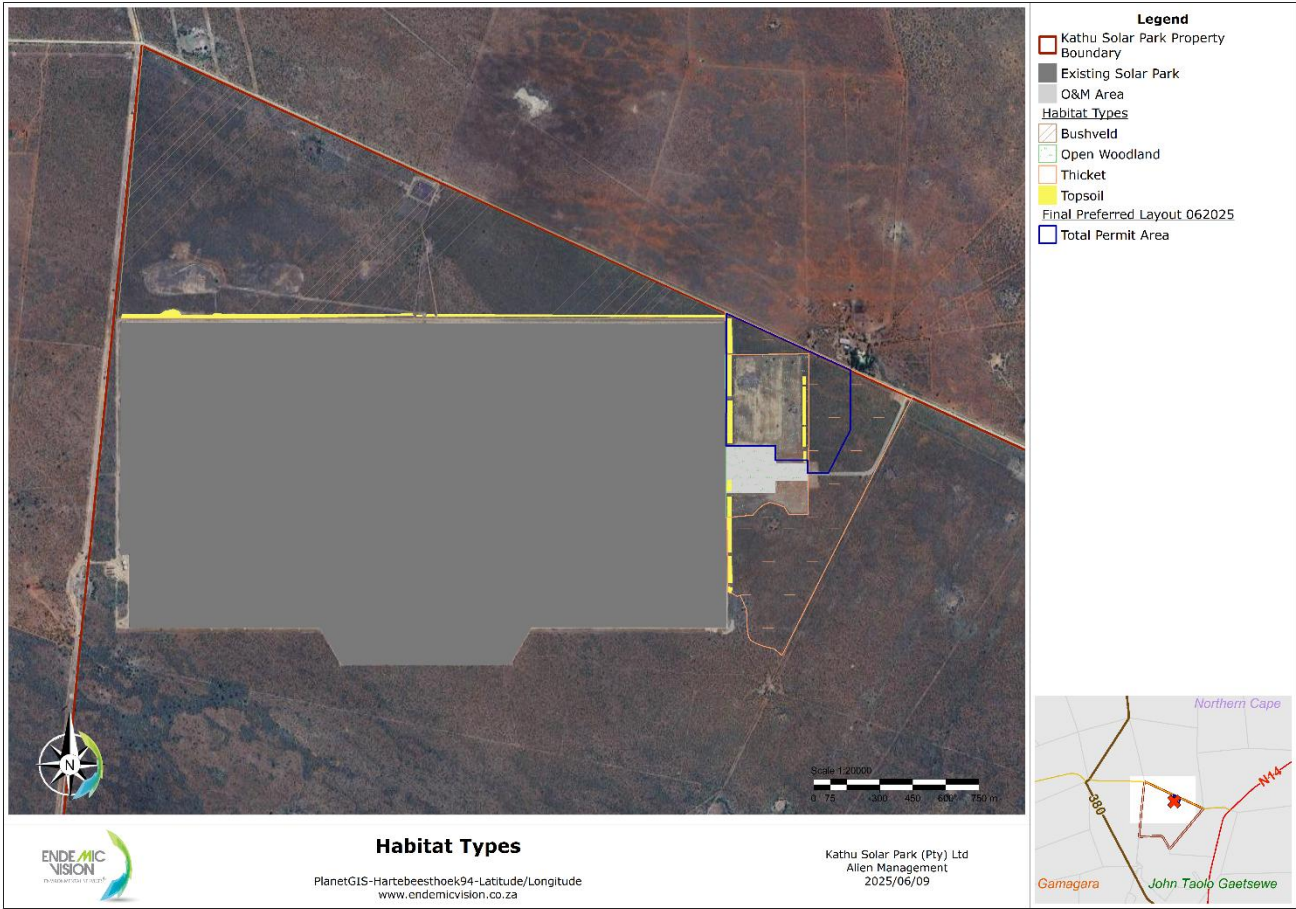


Figure 2: Orthophoto image – 2023 of the natural areas overlain with the different habitats.



Figure 3: Examples of the two habitat types and an undisturbed bushveld (baseline)

Bushveld occurs between 960 – 1300m altitude in the Northern Cape Province and Botswana. Bushveld is delineated where a woody element ratio of 35%-75 % is present in the Kathu Bushveld vegetation type. The Kathu bushveld vegetation type has been categorised as one of the seven endemic vegetation types that are under stress (KBRS 2023).

The bushveld habitat found here is functional with all the Kalahari elements in terms of plant functional groups and vegetation structure. The area slopes subtly towards the NFEPA and artificially created pans and serves as the catchment area around these features.

Bushveld comprises a well-developed grass layer with tree and shrub elements between 0.5m and 8m high, depending on the species. Bushveld is underlain by red aeolian sand with some areas having deep Hutton soil forms, 1.2 meters deep. The woody layer is mostly dominated by *Grewia flava*, *Tarchonanthus camphoratus*, *Ziziphus mucronata*, *Boscia albitrunca*, *Vachellia heamatoxylon*, *Vachellia erioloba*, *Searsia pendulata*, *Senegalia melifera*, *Diospyros lucoides*, *Gymnosporia buxifolia*, *Rhigozum trichotomum* and lower shrubs such as *Eriocephalus*, *Asparagus*, *Lycium*, *Lantana* and *Felicia* spp.

The species of conservation concern found in the bushveld strip assessed include above average densities of *Boscia albitrunca* and *Vachellia erioloba* trees; *Oxalis commutata*; *Ammocharis coranica*; *Orphanthera jasminiflora*; *Oxalis semiloba*; unidentified geophytes (2); *Jamesbrittenia atropurpurea* and *Lessertia frutescens*.

6 Rehabilitation Vision, Aim, Objectives and Targets

The Rehabilitation Vision is the strategic statement to which KSP will aim during all its project phases to achieve an acceptable final land use of the affected areas.

The specific final land use in this case is the grazing and browsing potential, ecological functioning and diversity contribution of Kathu Bushveld in terms of terrestrial biodiversity for the affected bushveld thicket and bushveld open woodland habitats.

Towards this end, "**The KSP rehabilitated areas are safe, stable, non-polluting functional Kathu Bushveld with a carrying capacity potential of approximately 13 hectares per large stock unit that can support local biodiversity and small-scale, socio-economic enterprises.**"

The rehabilitation objectives are based on the Constitution of South Africa (Act 108 of 1996), stating that every citizen has the right to a safe and healthy environment. According to Swart (2003: 490), the South African constitutional and common law require developers to conduct their "operational and closure activities with due diligence and care for the rights of others". The constitutional right to an environment which is not harmful to his/her health and well-being supersedes all other legislation. The rehabilitation objectives should be achieved in as cost-effective a manner as possible, and the rehabilitation works should be sustainable in the long term, giving effect to the rehabilitation vision.

The rehabilitation will take place concurrently on all temporarily disturbed areas and three years after decommissioning on the KSP footprint of approximately 420 hectares.

The objectives with their targets are summarised below, with a detailed discussion of each objective thereafter.

Table 2: Objectives and targets summary

Conserve listed species (SCC + protected NCNCA and NFA)
Rescue and transplant listed species
Monitor listed species
Establish and improve ecological corridors
Establish an ephemeral pan-corridor
Improve the KFNR corridor
Monitor corridor condition
Maintain corridor condition improvements
Conserve topsoil resources for rehabilitation
Complete sampling, search and rescue
Topsoil stripping and stockpiling
Vegetate topsoil stockpiles
Maintain topsoil resources
Monitor topsoil resources
Establish vegetation on disturbed footprints
Inspect rehabilitation areas for vegetation establishment
Prepare rehabilitation areas for vegetation establishment
Secure indigenous, drought-resistant species for rehabilitation
Vegetate rehabilitation areas
Maintain established listed species
Maintain established vegetation
Monitor established vegetation

7 Rehabilitation Implementation Plan

7.1 Conserve topsoil resources for rehabilitation

Two topsoil resources are important to this project. 1) The existing topsoil resources that must be managed for the original KSP and the 2) The topsoil resources that will be harvested for this KSP PV expansion. Topsoil resources are irreplaceable because they cannot be reproduced, and topsoil is the primary resource for implementing successful rehabilitation. Rehabilitation is the main insurance (mitigation measure) that makes development impacts acceptable. Without successful rehabilitation, this development risk rating would be unacceptable. To this end, we view the topsoil stockpiles as a sensitive habitat because they affect all the development ratings of the original development and the expansion development. Impacts to the topsoil have legal implications of non-compliance and significant cost implications. The final design ensures adequate storage of topsoil.

The final design of the expansion project shows the existing and planned topsoil storage areas.

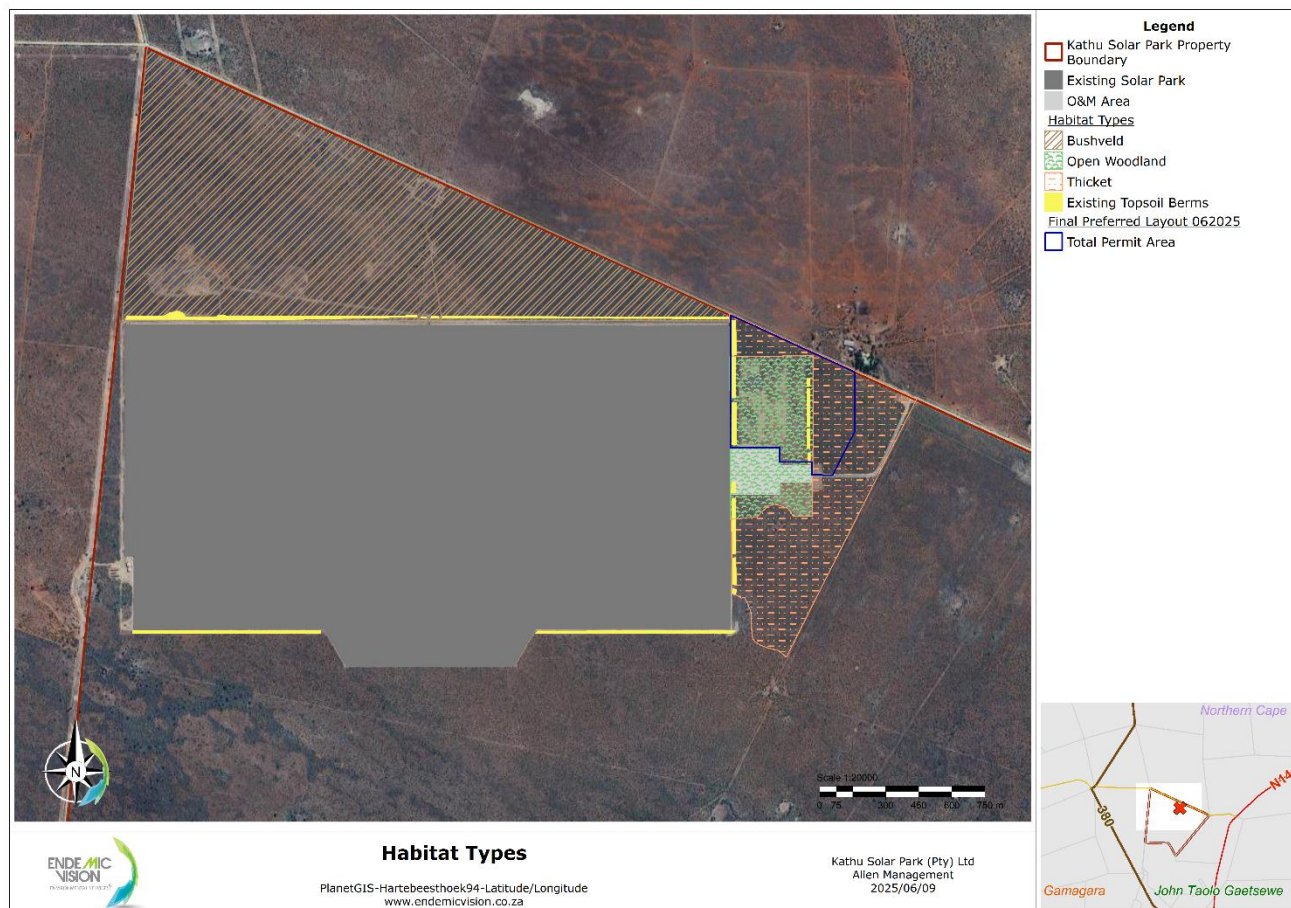


Figure 4: Sensitivity delineation for habitats and existing topsoil resources.

It is anticipated that it will be possible to harvest 100mm of topsoil from the open woodland area and 300mm from the bushveld thicket area. To ensure sufficient topsoil is harvested and stored within the confines of the development footprint, the stacking height of the topsoil berms will have to be approximately two meters.

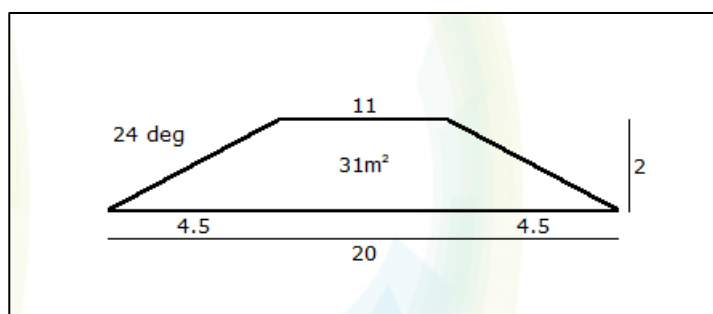


Figure 5: Topsoil berm design

Table 3: Topsoil volumes of the existing berm within the expansion footprint and required topsoil stockpile berms

Topsoil Requirement at a stack height of 2m	Topsoil m ³	Stockpiled Hectares	Footprint Hectares	Footprint m ²	Depth harvested	Height stacked
Existing topsoil berm within development footprint	137 550	9.17	Uncertain	Uncertain	Uncertain	1.50
Topsoil material - Open Woodland (historic laydown)	15 832	0.77	15.83	158 318	0.10	2.00
Topsoil material - Bushveld Thicket	34 583	1.67	11.53	115 275	0.30	2.00
Total hectares required for additional topsoil stockpiling	2.44					

KSP will have a topsoil resource of 10.17 hectares. Most of the bushveld topsoil has been in storage since 2016 (7.6 hectares, stockpiled at 1.5 meters). An additional 2.44 hectares of topsoil, stockpiled at 2 meters, will be added to this.

It is recommended that the old and new topsoil stockpiles be kept separate, but that the conservation of both stockpiles be treated the same. A topsoil balance should be drawn up for the whole KSP to evaluate if adequate topsoil is available for the final rehabilitation. Where a deficit is found, additional topsoil should be harvested mainly from the Bushveld area, which may have sandier soils than the thicket areas.

The topsoil berms should be vegetated with indigenous drought-resistant species supported by an initial cover crop. The selected species are limited to locally indigenous species from which seed or saplings could be obtained, and where the focus is on topsoil protection. Some of these species are commercially available, but local variants should be introduced. Some species could potentially be transplanted during topsoil removal and stockpiling to accelerate vegetation establishment. Initial aftercare will, however, be required.

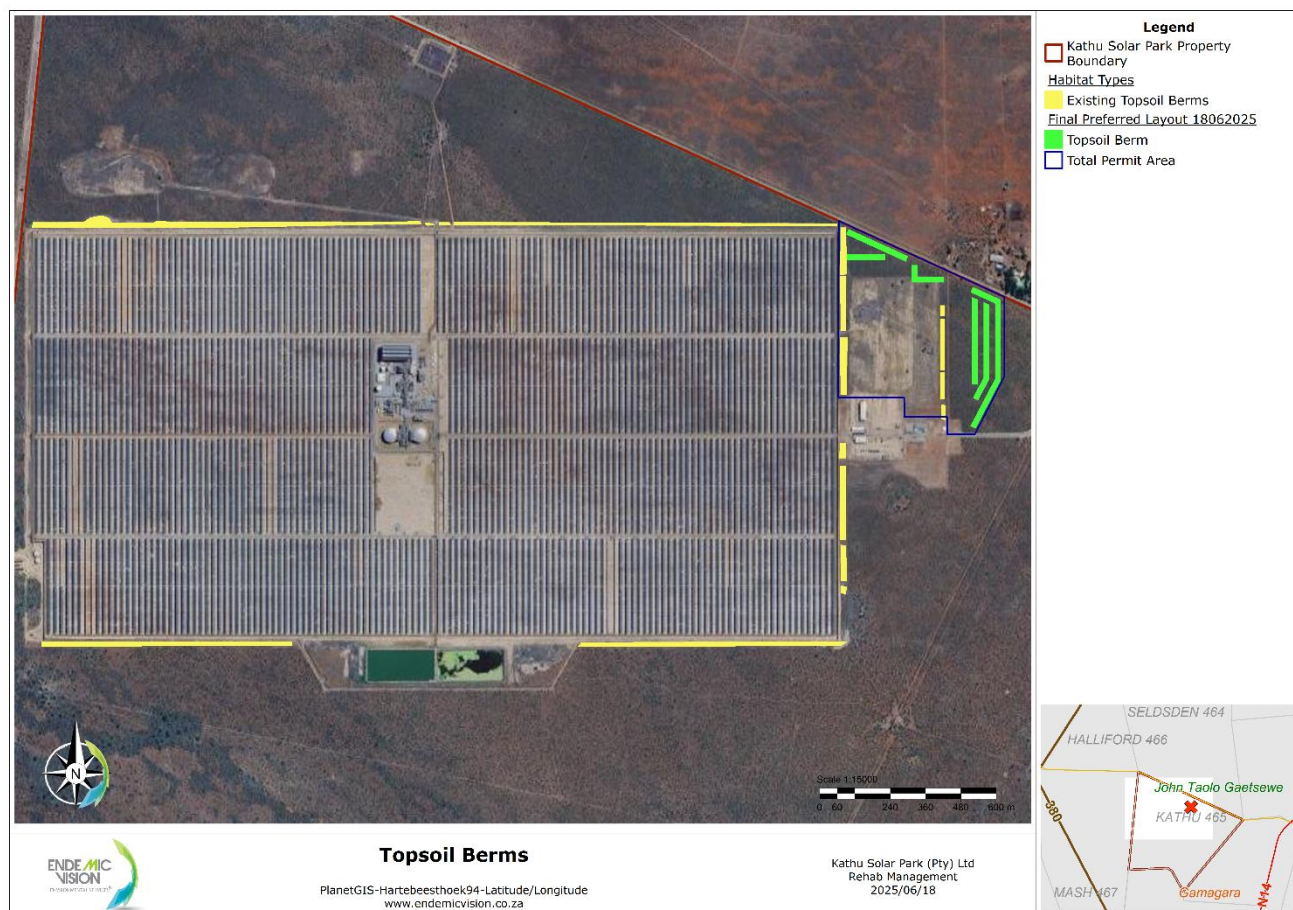


Figure 6: Existing and planned topsoil berms

Table 4: Detailed Topsoil targets and actions

Conserve topsoil resources for rehabilitation

Complete sampling, search and rescue

Ensure all plants and animals that require search-and-rescue have been removed.

Ensure all soil samples have been taken (1 x Open Woodland, 2 x Bushveld thicket).

Remove bulk vegetated matter, keeping some material for brush packing and mulching some of the material.

Topsoil stripping and stockpiling

Only stockpile topsoil in demarcated areas.

Ensure that old and new topsoil stockpiles are kept separate.

Stockpiles must aim to be 2 meters high with 1:3 side slopes to prevent erosion and allow for vegetation establishment.

Strip a minimum of 100mm from the open woodland area.

Strip a minimum of 300mm from the Bushveld area.

Vegetate topsoil stockpiles

Ameliorate the soils with initial cover crop sowing. See species lists. Amelioration should include, as a minimum organic compost, LAN, 3:2:3 and Super Phosphate at recommended ratios.

Brush packing the stockpiles will protect sown seed and topsoil from wind erosion and promote vegetation establishment.

Establish grass cover crop as soon as possible after topsoil stockpiling and before the first rainy season starts (Appendix A).

Establish shrubs by sowing shrub and tree seeds in prepared pockets on and at the foot of the topsoil berms.

Initial wetting will be required to set stockpiles after sowing.

Mulching material should be used to cover and establish vegetation on the topsoil stockpiles.

Maintain topsoil resources

Annual erosion control, vegetation resowing/planting and alien eradication should take place on the topsoil berms at the end of every rainy season (May / June).

Protect topsoil stockpiles from any dumping of building materials or any subsoil dug up during the construction phase. Subsoils should be kept separate and have a separate amelioration plan.

Monitor topsoil resources

Topsoil berms should be monitored for erosion, vegetation establishment and alien species infestation every 6 months for the first two years and annually thereafter.

7.2 Establish vegetation on disturbed footprints

Vegetation communities are small-scale units differentiated by specific plant species composition and characteristics (Van Oudtshoorn, 2015). The vegetation community consists of assemblages of plant growth forms (Kleynhans, 2007). Vegetation community structure consists of:

- ▶ Tree assemblages,
- ▶ Shrub assemblages,
- ▶ Grass assemblages,
- ▶ Herbaceous assemblages,
- ▶ Open (substrate such as sand/rock)

The Bushveld diversity and ecological functioning are set in a vegetation community comprising an intermittent tree layer, followed by a shrub layer, interspersed by a grass layer. These main elements include dwarf shrubs, forbs, creepers, climbers, bulbs and some succulents. The aim of the vegetation establishment would be to return all these elements to the site over time at similar percentages as is found in surrounding Bushveld habitats.

To establish Bushveld habitats, the plant community structure should be used as a guideline for vegetation establishment. Three local Bushveld sites indicate that most of the plant diversity found in Bushveld is grasses, followed by the dwarf shrub layer, shrubs, forbs and trees.

Table 5: Plant community assemblages. Percentage values indicate what percentage of the total diversity of three Bushveld sites each plant growth form makes up.

Plant growth form	Average vegetation community assemblage for Bushveld
Grass	39%
Reed	2%
Geophyte	1%
Forbs	5%
Creeper	1%
Climber	1%
Succulent	1%
Dwarf Shrub	20%
Shrub	24%
Tree	6%

Bushveld habitats have soils with chemical characteristics that promote a balanced community of trees, grasses, and shrubs. The soils are normally sandy with relatively lower carbon content. The risk of soil loss from topsoil stockpiles is greater with sandy soils. Thicket habitats have soils with chemical characteristics that promote thicket establishment. Among others, thicket soils tend to have a relatively higher carbon content because of years of debris and litter accumulation. A higher carbon content also promotes shrub establishment.

Local Bushveld soil pH range between Ph 5.6 and 6.8; Organic carbon percentage of at least 0.5%; K = > 73 mg/kg; Na= < 0.1 mg/kg; P = > 8 mg/kg. Local thicket soil pH range between Ph 6.2 and 7.6; Organic carbon percentage of at least 0.75%; K = > 182 mg/kg; Na= < 25 mg/kg; P = > 11 mg/kg.

Thicket habitats are associated with soil texture that has relatively more silt and clay content than grassland habitat types. This soil texture promotes shrub establishment and species niches more than grass establishment.

Local bushveld soils have between 2% - 4% silt contribution and between 2% and 5% clay contribution. Local thicket soils have between 4% - 7% silt contribution and between 4% and 6% clay contribution.

Topsoil must be ameliorated for the thicket vegetation community. This initial amelioration will be vegetation-oriented and exceed the baseline soil chemical composition specifically for P, K, C and N.

At final rehabilitation, vegetation establishment of the whole footprint will have to be undertaken.

To ensure vegetation establishment, the site must be made safe, stable and unpolluting. The landscape and soils are functional and have the characteristics that would allow for successful vegetation establishment.

The initial vegetation cover crop includes commercial, non-reproductive *Eragrostis* teff with other indigenous grass species mixed together to facilitate vegetation establishment as soon as possible. *Eragrostis* teff produces the cover and generates debris residues within which the trees and shrubs, as well as additional sub-climax and climax grasses, can be established (Appendix A).

Table 6: Detailed vegetation establishment targets and actions

Establish vegetation on disturbed footprints
Inspect rehabilitation areas for vegetation establishment
Inspect areas prepared for vegetation establishment to confirm the area is safe, stable, non-polluting and has sufficient topsoil for vegetation establishment.
Prepare rehabilitation areas for vegetation establishment
Cover the area with topsoil. Rake and settle with watering.
Decommission infrastructure.
Remove foreign materials, waste, subsoil, spillages and any debris from the planned rehabilitation area.
Reshape the landscape to conform to natural gradients and overland flow regimes.
Take soil samples of the topsoil stockpiles. Compare with the original soil samples and adapt the amelioration design.
Decompact the area through deep ripping between 300 mm and 500 mm deep.
Vegetate rehabilitation areas
Ameliorate the soils with initial cover crop sowing. See species lists. Amelioration should include, as a minimum, organic compost, LAN, 3:2:3 and Super Phosphate at recommended ratios.
Brush packing the stockpiles will protect sown seed and topsoil from wind erosion and promote vegetation establishment.
Establish a grass cover crop as soon as possible after topsoil stockpiling and before the first rainy season starts.
Establish shrubs by sowing shrub and tree seeds in prepared pockets on and at the foot of the topsoil berms.
Establish woody species (sowing tree and shrub seeds or transplanting saplings in prepared pockets). Conduct follow-up sowing with sub-climax and climax grasses one year after initial vegetation cover.
Initial wetting will be required to set stockpiles after sowing.
Mulching material should be used to cover and establish vegetation on the topsoil stockpiles.
Maintain established vegetation
Implement maintenance following the monitoring report results on an annual basis.
Monitor established vegetation
Monitor vegetation composition, structure and function on an annual basis during or directly after the rainy season for at least three years after rehabilitation.
Secure indigenous, drought-resistant species for rehabilitation
Harvest, clean, treat and store seed for future rehabilitation
Obtain a seed harvesting and nursery permit
Prioritise annual seed harvesting or purchase local, indigenous, drought-resistant seed and saplings from local commercial sources (Appendix A).

7.3 Conserve listed species

Listed species in this instance refers to species of conservation concern as well as species protected according to the Northern Cape Nature Conservation Act (Act 9 of 2009) (NCNCA) and National Forest Act (Act 84 of 1998) (NFA) that occur or is expected to occur on site (Appendix B).

Both the Bushveld and Thicket habitats contain several protected creepers and bulb species that will only be found during topsoil clearance. These creepers, succulents, and bulbs, being uprooted during the excavation process, must be rescued and stored in a dark, dry, cool storage area and re-established in pre-designated areas as soon as possible after rescue. Re-establishment must take place within the same season it was harvested.

All the species found on site, as well as protected species that may be found in dense *Senegalia melifera* should be searched out, rescued and translocated. It will be prudent to have a person with plant identification skills on site before and during topsoil clearance.

Three types of transplantation areas were identified for the listed species.

1. The **artificial wetlands** (the existing wetland and existing return water dams that will be converted to wetlands post closure). These areas will be used to establish protected trees and some of the bulb species.
2. The **disturbed areas** will be rehabilitated as they become available for concurrent rehabilitation. The initial focus will be on rehabilitating historically impacted areas. Specifically, the redundant telephone line and service road parallel with the T25 road, the disturbed footprints of diggings and burrow pits. These areas will be used to establish listed species through sowing, transplantation of adult specimens where possible and saplings (See appendix B).
3. **Hedging areas** were identified and demarcated to create a vegetated barrier of shrubs and trees between the existing plant and the Kathu Forest Nature Reserve. This area will be used to compensate for the loss of destroyed nationally protected trees, as well as sowing indigenous shrub seeds and planting saplings in these areas.

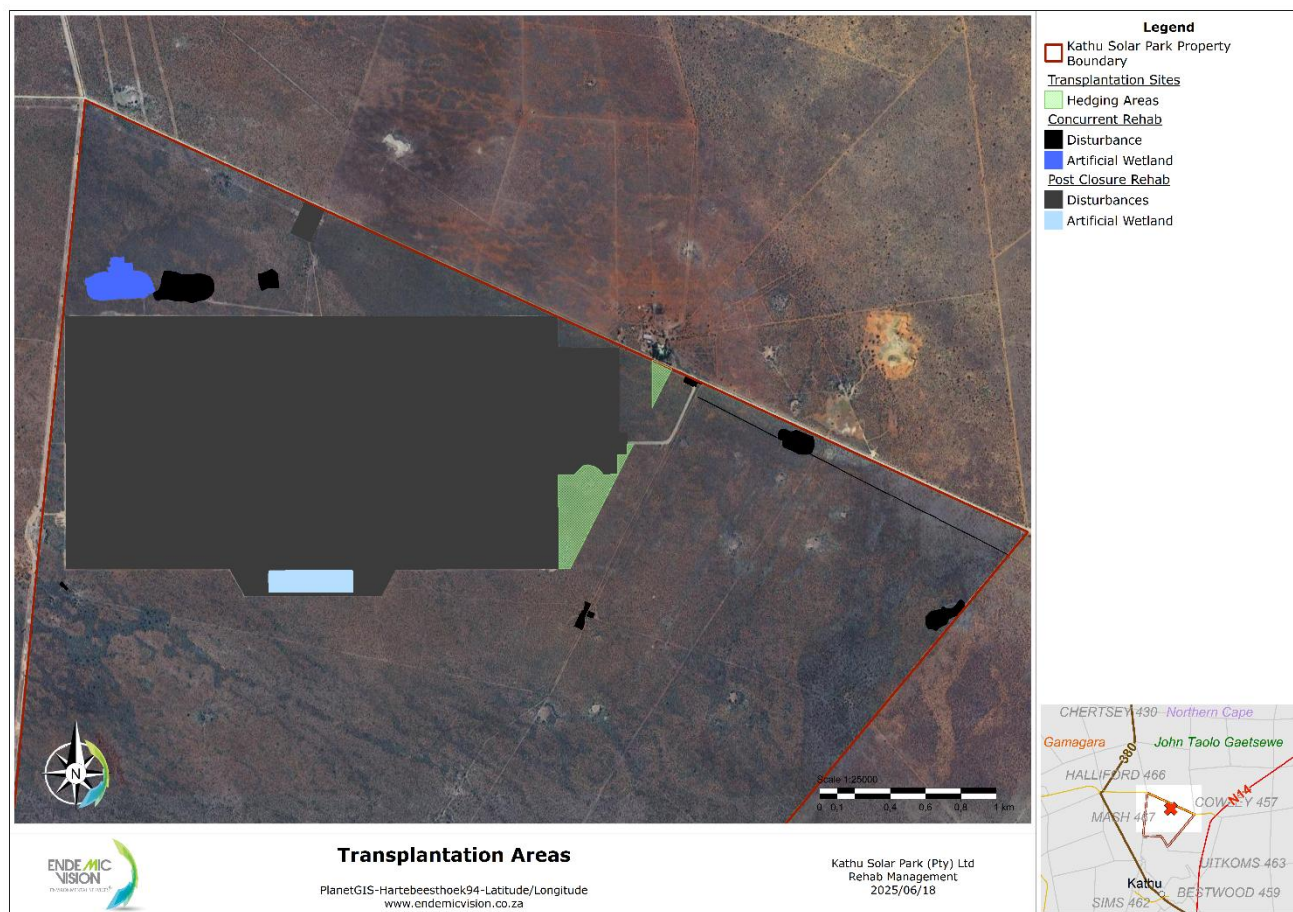


Figure 7: Transplantation areas identified for concurrent establishment of listed species

Table 7: Detailed listed species targets and actions

Conserve listed species (SCC + protected NCNCA & NFA)
Rescue and transplant listed species
Brush pack transplanted species to increase microclimatic conditions, reduce predation and increase debris.
Identify, search and rescue listed species (Appendix B) in demarcated areas (relocation map)
Initiate harvesting of seeds of all the listed species in the development footprint before topsoil clearance takes place or commercially purchase available locally harvested seed (Appendix B).
Re-establish listed species by planting them in (similarly) protected shrub clusters with soil amelioration to promote root establishment.
Rescue and transplant uprooted bulb/tuber species during topsoil clearing
Monitor listed species
Monitor the survival rate of re-established species on an annual basis for as long as the permit requires.
Maintain established listed species
Implement maintenance following the monitoring report results on an annual basis. Specifically to ensure survived protected tree numbers are complied with.

7.4 Establish and improve ecological corridors

Bushveld habitats are extensive areas with high ecological functioning, providing several ecosystem services. Linkages to other habitats allow for species to utilise these areas while sourcing shelter, breeding and or watering areas elsewhere. If the Bushveld areas are not utilised, they will deteriorate.

The Bushveld habitat should be linked to Woodland, Open Woodland and the Ephemeral pans as far as possible. Vegetation establishment should consider creating vegetated corridors to these other habitats. Browsing and grazing animals should be allowed to utilise the area after the establishment of the rehabilitation works.

The establishment of the corridors will accelerate rehabilitation efforts and promote ecosystem functionality. The outcome of establishing these corridors will be an extended biodiversity system which protects and enhances a minimum set of the unique biodiversity of the Kalahari. Connectivity between habitats (e.g., biological corridors) ensures species migration and gene flow, which is especially important in fragmented habitats and for the conservation of metapopulations. This includes biological corridors across habitats, landscape types, topographic and climatic gradients.

There is a KFNR corridor that links two existing woodlands and the post-closure corridor linking the western and eastern ephemeral pan systems. Each corridor has a width of at least 100 meters with a 100-meter buffer on each side, 300-m corridor width (1000 ft).

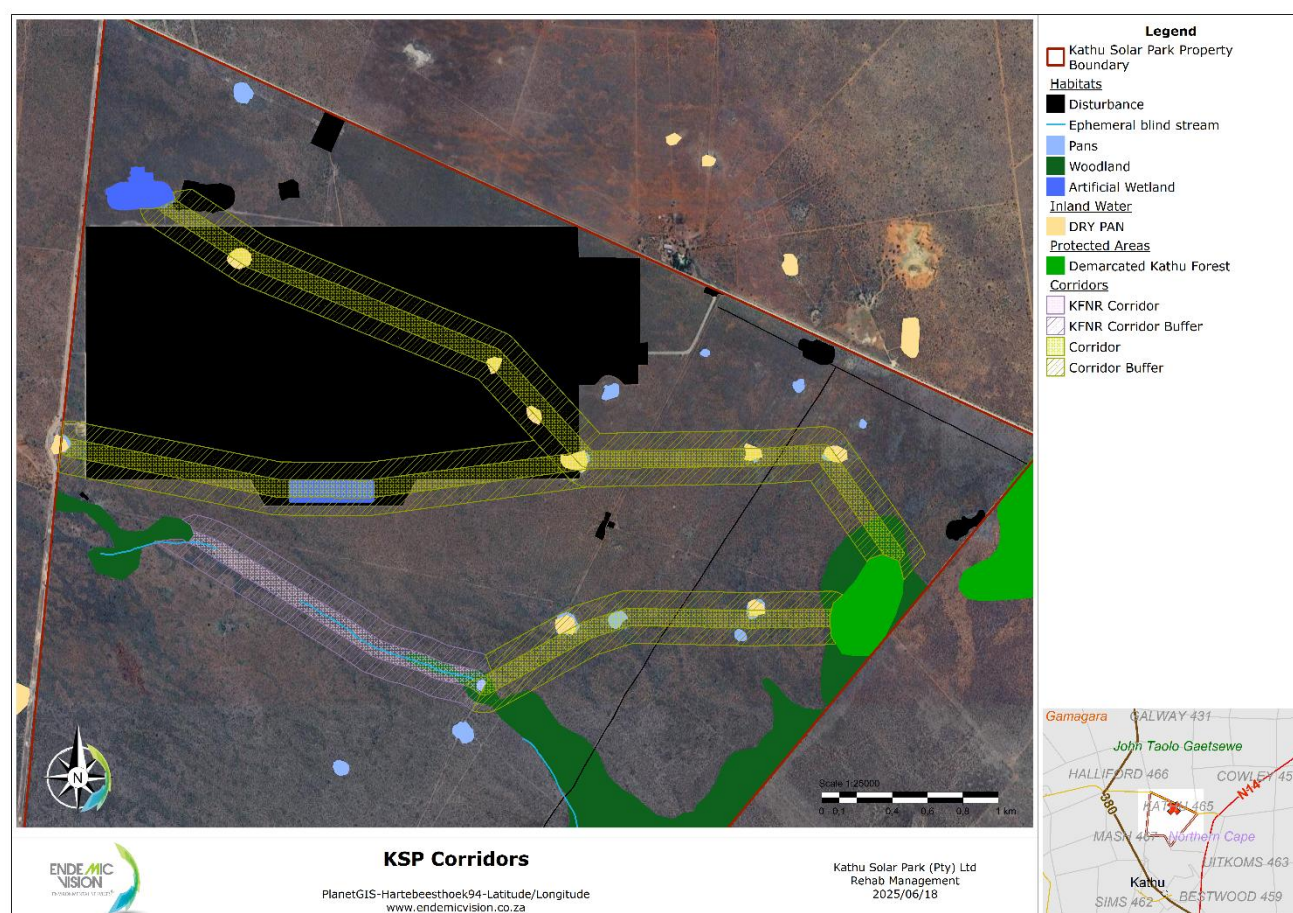


Figure 8: Ecological corridors

Table 8: Detailed corridor targets and actions

Establish and improve ecological corridors

Improve the KFNr corridor

Assess corridor woodland population health. Conduct a population survey to indicate population condition and health of the 29-hectare core area and the corridor area linking the two woodland habitats.

Improve woodland species establishment in disturbed areas of the KFNr corridor. Sow seed and plant saplings of the nationally protected trees that occur in the region. Sowing and planting should take place in historically disturbed areas.

Monitor the corridor condition

Monitor corridor condition and utilisation on an annual basis to indicate if interventions were effective.

Maintain corridor condition improvements

Maintain corridors following the monitoring report requirements.

Establish an ephemeral pan-corridor

Establish wetland species around the existing dam structures to promote functional ephemeral pans.

Use existing dam structures to function as ephemeral pans post closure. Existing dams should be retrofitted to allow for water accumulation and safe and stable access to the dams by animals.

Establish vegetated linkages in corridors between existing pans. Tree and shrub lines should be established along the core corridor areas as early as possible to promote faunal utilisation of the area.

7.5 Rehabilitation monitoring and reporting

The current commitments of the KSP EMPR require KSP to:

- Monitor and report on the survival of relocated SCC, assuming the initial log of removed species is recorded with coordinates of rescued and translocated sites.
- Monitor rehabilitated areas annually for effective stormwater run-off, erosion and invasive alien plant establishment.
- Rehabilitation success monitoring should take place frequently. It is proposed to consider monitoring the rehabilitation efforts in years 1,2,3, whereafter the final assessment and sign-off can be done.

In addition to this, it is required to determine and monitor the topsoil balance for the KSP development footprint and per habitat type, where applicable. This should be reassessed every three years. The reassessment will indicate if any erosion is taking place, maintenance is required, topsoil stockpiles are vegetated with indigenous vegetation, and what alien species removal is required.

Specifically, the rehabilitation success monitoring should be monitored against at least three suitable analogue Bushveld sites to evaluate the rehabilitation success over time. It is proposed that three Bushveld sites be used from the biodiversity offset area to chrono sequentially compare the rehabilitation success in terms of the absence of threats, physical conditions, species diversity, structural diversity, and ecological functioning.

Table 9: Monitoring categories, parameters, criteria and target values

Monitoring Category	Parameters	Criteria	Target value	Monitoring method
Absence of threats	Contamination	m ² mapped	<5% of total area	Mapping
	Waste & Littering	m ² mapped	<5% of total area	Mapping
	Invasive species	Density, Cover m ² mapped	<3% of total area	Mapping
Physical Conditions	Substrate physical	Silt, Sand, Clay ratios	<2mm: (Silt+Clay)% <2mm >70% OR <20%; >2mm >70%	Soil sampling and analysis
	Substrate chemical	Ph, EC, SAR, ESP, C, Na, K, P	75% of analogue values	Soil sampling and analysis
	Erosion	Erosion frequency and activity mapped	<1% of total area	Mapping
	Infiltration	Infiltration potential index	75% of analogue values	Landscape functional analysis
	Stability	Ecological stability index	75% of analogue values	Landscape functional analysis
	Nutrient cycling	Nutrient cycling potential index	75% of analogue values	Landscape functional analysis
Structural diversity	Vegetation structure	Curtis Bray Similarity Index	90% of analogue values	Line intercept method
	Vegetation cover	Curtis Bray Similarity Index	90% of analogue values	Whitaker diversity plots
Species Diversity	Plant diversity	Diversity indexing (Shannon, Simpson, Evenness, Alpha)	50% of analogue values	Whitaker diversity plots
	Animal diversity	Diversity indexing (Shannon, Simpson, Evenness, Alpha)	50% of analogue values	Habitat complexity assessment Mammal camera monitoring

Ecological functioning	Successional status	Curtis Bray Similarity Index	Pioneer: <60% Sub-climax: 20-30% Climax: >10%	Whiteker diversity plots
	Landscape function	Landscape Organisation Index Landscape Patch Area Index	75% of analogue values	Landscape functional analysis
	Grazing capacity	GU/ha	<30% of carrying capacity	Line intercept method
	Browsing capacity	BU/ha	<30% of carrying capacity	Line intercept method

The detailed monitoring schedule is presented as part of the rehabilitation schedule below.

7.6 Rehabilitation Schedule

The following persons will implement the rehabilitation schedule. The **accountable person** is financially and legally accountable for the work. This includes the oversight, quality, technical correctness, on-time delivery, and legal compliance. The **responsible person** is responsible for executing the work according to plans and procedures. The person who will be performing the work.

Table 10: Accountable and responsible persons for the implementation of the rehabilitation plan

Responsibility	Person	Company	Position	Phase
Responsible Person	Chantal Richardson	Kathu Operations Pty (Ltd)	HSE Manager	Construction phase
Accountable Person	Patrick Mokgobo	Kathu Operations Pty (Ltd)	Plant Manager	Construction phase
Responsible Person	Sean O'Beirne	Aurex Pty (Ltd)	Environmental Officer	Permanent
Accountable Person	Peter Vlok	Aurex Pty (Ltd)	Project Manager	Permanent

Table 11: Summary rehabilitation schedule

Objectives and Targets	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Conserve listed species													
Monitor listed species													
Rescue and transplant listed species													
Conserve topsoil resources for rehabilitation													
Complete sampling, search and rescue													
Maintain topsoil resources													
Monitor topsoil resources													
Topsoil stripping and stockpiling													
Vegetate topsoil stockpiles													
Establish and improve ecological corridors													
Establish ephemeral pan corridor													
Improve the KFNR corridor													
Maintain corridor condition improvements													
Monitor corridor condition													
Establish vegetation on disturbed footprints													
Inspect rehabilitation areas for vegetation establishment													
Maintain established listed species													
Maintain established vegetation													
Monitor established vegetation													
Prepare rehabilitation areas for vegetation establishment													
Secure indigenous, drought resistant species for rehabilitation													
Vegetate rehabilitation areas													

Table 12: Detailed Rehabilitation Schedule

Objective	Target	Action	Start Date	End Date	Period (days)	Frequency	Accountable Person	Responsible Person
Conserve listed species (SCC + protected NCNCA & NFA)	Rescue and transplant listed species	Initiate harvesting of seeds of all the listed species in the development footprint before topsoil clearance takes place, or commercially purchase available locally harvested seed (Appendix B).	2025/10/08	2025/10/22	14	Once off	Project Manager	Environmental Officer
		Identify, search and rescue listed species (Appendix B) in demarcated areas (relocation map)	2025/10/08	2025/11/07	30	Once off	Project Manager	Environmental Officer
		Rescue and transplant uprooted bulb/tuber species during topsoil clearing	2025/10/08	2025/11/07	30	Once off	Project Manager	Environmental Officer
		Re-establish listed species by planting them in (similarly) protected shrub clusters with soil amelioration to promote root establishment.	2025/10/08	2025/11/07	30	Once off	Project Manager	Environmental Officer
		Brush pack transplanted species to increase microclimatic conditions, reduce predation and increase debris.	2025/10/08	2025/11/07	30	Once off	Project Manager	Environmental Officer
	Monitor listed species	Monitor the survival rate of re-established species on an annual basis for as long as the permit requires.	2025/11/07	2028/10/17	1075	Annually	Plant Manager	HSE Manager

	Maintain established listed species	Implement maintenance following the monitoring report results on an annual basis. Specifically to ensure survived protected tree numbers are complied with.	2025/10/18	2028/10/17	1095	Annually	Plant Manager	HSE Manager
Conserve topsoil resources for rehabilitation	Complete sampling, search and rescue	Ensure all plants and animals that require search-and-rescue have been removed.	2025/09/10	2025/10/10	30	Once off	Project Manager	Environmental Officer
		Ensure all soil samples have been taken (1 x Open Woodland, 2 x Bushveld thicket).	2025/09/10	2025/10/10	30	Once off	Project Manager	Environmental Officer
		Remove bulk vegetated matter, keeping some material for brush packing and mulching some of the material.	2025/09/24	2025/10/08	14	Once off	Project Manager	Environmental Officer
	Topsoil stripping and stockpiling	Strip a minimum of 100mm from the open woodland area. Strip a minimum of 300mm from the Bushveld area.	2025/10/08	2025/10/18	10	Once off	Project Manager	Environmental Officer
		Only stockpile topsoil in demarcated areas. Ensure that old and new topsoil stockpiles are kept separate.	2025/10/08	2025/10/18	10	Once off	Project Manager	Environmental Officer
		Stockpiles must aim to be 2-meters high with 1:3 side slopes to prevent erosion and allow for vegetation establishment.	2025/10/08	2025/10/18	10	Once off	Project Manager	Environmental Officer
	Vegetate topsoil stockpiles	Mulching material should be used to cover and establish vegetation on the topsoil stockpiles.	2025/10/18	2025/10/23	5	Once off	Project Manager	Environmental Officer
		Ameliorate the soils with initial cover crop sowing. See species lists. Amelioration should include as a minimum organic compost, LAN, 3:2:3 and Super	2025/10/23	2025/10/28	5	Once off	Project Manager	Environmental Officer

		Phosphate at recommended ratios.						
		Establish grass cover crop as soon as possible after topsoil stockpiling and before the first rainy season starts (Appendix A).	2025/10/28	2025/11/02	5	Once off	Project Manager	Environmental Officer
		Initial wetting will be required to set stockpiles after sowing.	2025/11/02	2025/11/07	5	Once off	Project Manager	Environmental Officer
		Brush packing the stockpiles will protect sown seed and topsoil from wind erosion and promote vegetation establishment.	2025/11/07	2025/11/12	5	Once off	Project Manager	Environmental Officer
		Establish shrubs by sowing shrub and tree seeds in prepared pockets on and at the foot of the topsoil berms.	2025/11/12	2025/11/17	5	Once off	Project Manager	Environmental Officer
	Monitor topsoil resources	Topsoil berms should be monitored for erosion, vegetation establishment and alien species infestation every 6 months for the first two years and annually thereafter.	2025/11/17	2034/11/03	730	Bi-annually	Plant Manager	HSE Manager
		Protect topsoil stockpiles from any dumping of building materials or any subsoil dug up during the construction phase. Subsoils should be kept separate and have a separate amelioration plan.	2025/11/17	2034/11/03	730	Annually	Plant Manager	HSE Manager
		Annual erosion control, vegetation resowing / planting and alien eradication should take place on the topsoil berms at the end of	2025/11/17	2034/11/03	730	Annually	Plant Manager	HSE Manager

		every rainy season (May / June).						
Establish vegetation on disturbed footprints	Secure indigenous, drought-resistant species for rehabilitation	Prioritise annual seed harvesting or purchase local, indigenous, drought-resistant seed and saplings from local commercial sources (Appendix A).	2025/11/17	2034/11/03	3273	Annually	Plant Manager	HSE Manager
		Obtain seed harvesting and nursery permit	2025/11/17	2034/11/03	3273	Annually	Plant Manager	HSE Manager
		Harvest, clean, treat and store seed for future rehabilitation	2025/11/17	2034/11/03	3273	Annually	Plant Manager	HSE Manager
	Prepare rehabilitation areas for vegetation establishment	Decommission infrastructure.	2026/02/15	2034/11/03	3183	Continuous Concurrent	Plant Manager	HSE Manager
		Remove foreign materials, waste, subsoil, spillages and any debris from the planned rehabilitation area.	2026/02/15	2034/11/03	3183	Continuous Concurrent	Plant Manager	HSE Manager
		Reshape the landscape to conform to natural gradients and overland flow regimes.	2026/02/15	2034/11/03	3183	Continuous Concurrent	Plant Manager	HSE Manager
		Decompact the area through deep ripping between 300 mm and 500 mm deep.	2026/02/15	2034/11/03	3183	Continuous Concurrent	Plant Manager	HSE Manager
		Take soil samples of the topsoil stockpiles. Compare with the original soil samples and adapt the amelioration design.	2026/02/15	2034/11/03	3183	Continuous Concurrent	Plant Manager	HSE Manager
		Cover the area with topsoil. Rake and settle with watering.	2026/02/15	2034/11/03	3183	Continuous Concurrent	Plant Manager	HSE Manager
	Inspect rehabilitation areas for vegetation establishment	Inspect areas prepared for vegetation establishment to confirm the area is safe, stable, non-polluting and has sufficient topsoil for vegetation establishment.	2026/02/15	2034/11/03	3183	Continuous Concurrent	Plant Manager	HSE Manager
	Vegetate rehabilitation areas	Mulching material should be used to cover and	2026/02/15	2034/11/03	3183	Continuous Concurrent	Plant Manager	HSE Manager

		establish vegetation on the topsoil stockpiles.						
	Vegetate rehabilitation areas	Ameliorate the soils with initial cover crop sowing. See species lists. Amelioration should include, as a minimum, organic compost, LAN, 3:2:3 and Super Phosphate at recommended ratios.	2026/02/15	2034/11/03	3183	Continuous Concurrent	Plant Manager	HSE Manager
		Establish a grass cover crop as soon as possible after topsoil stockpiling and before the first rainy season starts.	2026/02/15	2034/11/03	3183	Continuous Concurrent	Plant Manager	HSE Manager
		Initial wetting will be required to set stockpiles after sowing.	2026/02/15	2034/11/03	3183	Continuous Concurrent	Plant Manager	HSE Manager
		Brush packing the stockpiles will protect sown seed and topsoil from wind erosion and promote vegetation establishment.	2026/02/15	2034/11/03	3183	Continuous Concurrent	Plant Manager	HSE Manager
		Establish shrubs by sowing shrub and tree seeds in prepared pockets on and at the foot of the topsoil berms.	2026/02/15	2034/11/03	3183	Continuous Concurrent	Plant Manager	HSE Manager
		Establish woody species (sowing tree and shrub seeds or transplanting saplings in prepared pockets). Conduct follow-up sowing with sub-climax and climax grasses one year after initial vegetation cover.	2026/02/15	2034/11/03	3183	Continuous Concurrent	Plant Manager	HSE Manager
	Monitor established vegetation	Monitor vegetation composition, structure and function on an annual basis during or directly after the rainy season for at least three years after rehabilitation.	2026/02/15	2037/11/02	4278	Annually	Plant Manager	HSE Manager
	Maintain established vegetation	Implement maintenance following the monitoring	2025/11/07	2037/11/02	4378	Annually	Plant Manager	HSE Manager

		report results on an annual basis.						
Establish and improve ecological corridors	Improve the KFNR corridor	Assess corridor woodland population health. Conduct a population survey to indicate the population condition and health of the 29-hectare core area and the corridor area linking the two woodland habitats.	2026/02/15	2027/02/15	365	Once off	Project Manager	Environmental Officer
		Improve woodland species establishment in disturbed areas of the KFNR corridor. Sow seed and plant saplings of the nationally protected trees that occur in the region. Sowing and planting should take place in historically disturbed areas.	2026/02/15	2029/02/14	1095	Biennially	Plant Manager	HSE Manager
	Establish an ephemeral pan corridor	Use existing dam structures to function as ephemeral pans post closure. Existing dams should be retrofitted to allow for water accumulation and safe and stable access of the dams by animals.	2034/11/03	2035/11/03	365	Once off	Project Manager	Environmental Officer
		Establish wetland species around the existing dam structures to promote functional ephemeral pans.	2034/11/03	2035/11/03	365	Once off	Project Manager	Environmental Officer
		Establish vegetated linkages in corridors between existing pans. Tree and shrub lines should be established along the core corridor areas as early as possible to promote faunal utilisation of the area.	2034/11/03	2035/11/03	365	Once off	Project Manager	Environmental Officer

	Monitor corridor condition	Monitor corridor condition and utilisation on an annual basis to indicate if interventions were effective.	2026/02/15	2029/02/14	1095	Annually	Plant Manager	HSE Manager
	Maintain corridor condition improvements	Maintain corridors following the monitoring report requirements.	2026/02/15	2029/02/14	1095	Annually	Plant Manager	HSE Manager

Table 13: Monitoring schedule

Monitoring Category	Parameters	Criteria	Target value	Monitoring method	Frequency	Accountable Person	Responsible Person
Absence of threats	Contamination	m ² mapped	<5% of total area	Mapping	Once off before vegetation establishment	Plant Manager	HSE Manager
	Waste & Littering	m ² mapped	<5% of total area	Mapping	Once off before vegetation establishment	Plant Manager	HSE Manager
	Invasive species	Density, Cover m ² mapped	<3% of total area	Mapping	Annually (see alien invasive species management plan)	Plant Manager	HSE Manager
Physical Conditions	Substrate physical	Silt, Sand, Clay ratios	<2mm: (Silt+Clay)% <2mm >70% OR <20%; >2mm >70%	Soil sampling and analysis	Before rehabilitation and tri-annually thereafter	Plant Manager	HSE Manager
	Substrate chemical	Ph, EC, SAR, ESP, C, Na, K, P	75% of analogue values	Soil sampling and analysis	Before rehabilitation and tri-annually thereafter	Plant Manager	HSE Manager
	Erosion	Erosion frequency and activity mapped	<1% of total area	Mapping	Annually	Plant Manager	HSE Manager
	Infiltration	Infiltration potential index	75% of analogue values	Landscape functional analysis	Years 1,2,3 and a final assessment.	Plant Manager	HSE Manager
	Stability	Ecological stability index	75% of analogue values	Landscape functional analysis	Years 1,2,3 and a final assessment.	Plant Manager	HSE Manager

	Nutrient cycling	Nutrient cycling potential index	75% of analogue values	Landscape functional analysis	Years 1,2,3 and a final assessment.	Plant Manager	HSE Manager
Structural diversity	Vegetation structure	Curtis Bray Similarity Index	90% of analogue values	Line intercept method	Years 1,2,3 and a final assessment.	Plant Manager	HSE Manager
	Vegetation cover	Curtis Bray Similarity Index	90% of analogue values	Whiteker diversity plots	Years 1,2,3 and a final assessment.	Plant Manager	HSE Manager
Species Diversity	Plant diversity	Diversity indexing (Shannon, Simpson, Evenness, Alpha)	50% of analogue values	Whiteker diversity plots	Years 1,2,3 and a final assessment.	Plant Manager	HSE Manager
	Animal diversity	Diversity indexing (Shannon, Simpson, Evenness, Alpha)	50% of analogue values	Habitat complexity assessment Mammal camera monitoring	Years 1,2,3 and a final assessment.	Plant Manager	HSE Manager
Ecological functioning	Successional status	Curtis Bray Similarity Index	Pioneer: <60% Sub-climax: 20-30% Climax: >10%	Whiteker diversity plots	Years 1,2,3 and a final assessment.	Plant Manager	HSE Manager
	Landscape function	Landscape Organisation Index Landscape Patch Area Index	75% of analogue values	Landscape functional analysis	Years 1,2,3 and a final assessment.	Plant Manager	HSE Manager
	Grazing capacity	GU/ha	<30% of carrying capacity	Line intercept method	Years 1,2,3 and a final assessment.	Plant Manager	HSE Manager
	Browsing capacity	BU/ha	<30% of carrying capacity	Line intercept method	Years 1,2,3 and a final assessment.	Plant Manager	HSE Manager

8 Risk Assessment

The aim of this risk assessment is to give the necessary confidence to the project and regulatory authority that the project has accurately predicted its long-term impacts after cessation of its operations.

In terms of NEMA, the aim of the environmental risk assessment is to quantify the latent and residual risk pertaining to any development and provide a cost estimate to address the risks.

The objective of the environmental risk assessment, according to the National Environmental Management Act (Act No. 107 of 1998): Regulations pertaining to the Financial Provision in Government Gazette Notice No. 1147 issued on 20 November 2015 are detailed in the diagram below.

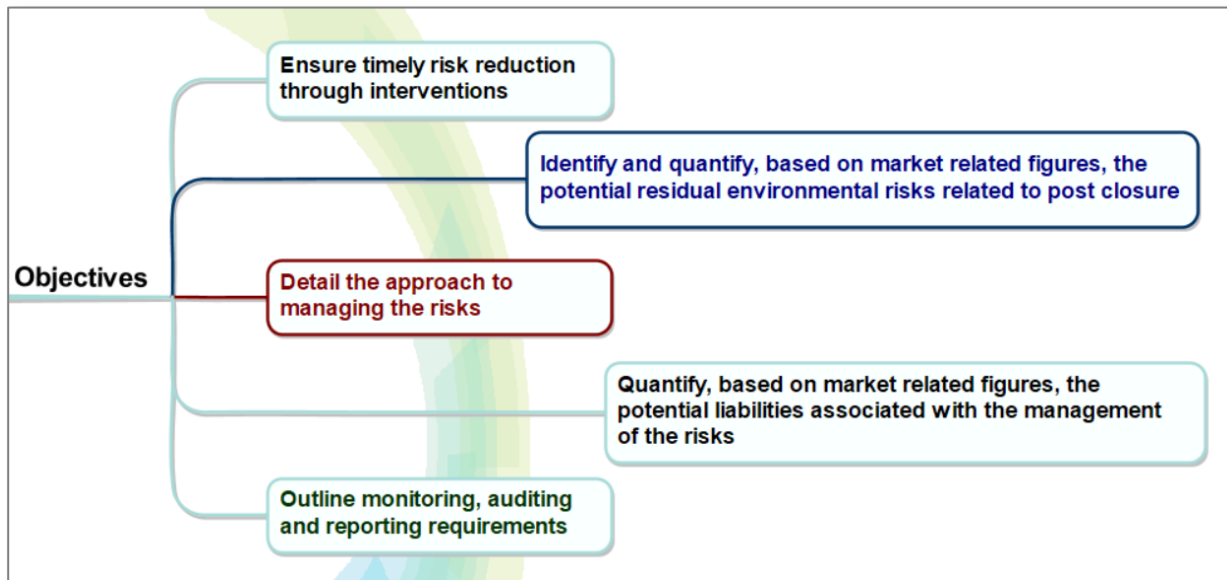


Figure 9: Objectives of the Environmental Risk Assessment

8.1 Rehabilitation Risk Assessment Results

Extensive risk assessments are referenced from the biodiversity terrestrial specialist report and environmental impact study. This screening level qualitative assessment indicates the immediate, residual risks as well the risk of not achieving final land use.

8.1.1 Immediate Risks

The immediate risks identified for this project are those of topsoil loss, storm water system failure, wind and or water erosion, land use degradation over time from construction or operational activity encroachment.

All of these immediate risks are addressed in the rehabilitation plan and the KSP EMPR. There are now immediate rehabilitation risks if the mitigation plans are implemented.

8.1.2 Residual Risks

Residual impacts are defined as those environmental impacts that remain after the completion of the rehabilitation work. In terms of this risk assessment, residual impacts can be seen as the risks remaining if the current rehabilitation plan is implemented.

Where concurrent rehabilitation is completed as planned and vegetation is restored, the main residual risks are loss of protected species and habitat deterioration. Regardless of the efforts to search, rescue and transplant protected species, some of these species are specialist plants, and there is a risk of the loss of these species occurring in this area after rehabilitation. Habitat deterioration because of isolation, fragmentation and lack of ecological processes can result in deterioration of the rehabilitated areas instead of the anticipated increased ecological functioning. The establishment of corridors is essential to manage this residual risk.

The risk of the loss of protected species occurring in this area is considered high over the short term, but moderate to low over the long term. The re-establishment of these species must be monitored, and where a complete absence of a species is found, alternative re-establishment plans should be put in place.

The risk of habitat degradation is considered moderate to high over the long term. This is because the establishment of corridors may be partial, artificial or only limiting.

8.1.3 Risk in terms of not achieving the final land use

The final land use is natural ecosystems with wildlife and/or livestock grazing capability. From the assessment results, the risk of not achieving wildlife and or livestock grazing is considered low to unlikely.

9 Final Rehabilitation and Closure Management

To ensure compliance with the NEMA Financial Provision Regulations 2015 (GNR1147) it is proposed that the following assessment and reporting requirements be met one rain season after the concurrent rehabilitation is completed:

- The review of concurrent rehabilitation and remediation activities implemented;
- establishing rehabilitation and remediation goals and outcomes for the forthcoming 12 months, which contribute to the gradual achievement of the final, post-closure land use.
- to establish a plan, schedule and budget for rehabilitation for the forthcoming 12 months;
- identify and address shortcomings experienced in the preceding 12 months of rehabilitation; and
- to evaluate and update the cost of rehabilitation for the 12-month period and for closure, for purposes of supplementing the financial provision guarantee or other financial provision instrument.

Furthermore, KSP is required to compile an integrated closure plan at least ten (10) years before closure that will address:

- A report on the status of rehabilitation works. The degree of rehabilitation success of the rehabilitation works required in the 2016 and 2024 environmental authorisations.
- The establishment of the final post-closure vision and land use, habitat-specific rehabilitation goals linked to the post-closure vision and land use.
- A georeferenced integrated plan including the status, planned status of all the areas leased by KSP. This plan should show how biodiversity offset areas and rehabilitated areas will allow ecological functional patterns between different habitat types.
- The plan should be linked to a rehabilitation schedule and budget to achieve the post-closure vision.

Appendix A: Species lists for rehabilitation

Table 14: Specific planting species lists for top-soil berm vegetation establishment

Bushveld species for topsoil vegetation establishment	
Grasses	%
Antheophora pubescens	2%
Aristida meridionalis	5%
Aristida stipitata	5%
Digitaria eriantha	5%
Elionurus muticus	2%
Enneapogon cenchroides	5%
Enneapogon desvauxii	2%
Eragrostis tef	10%
Melinis repens_repens	4%
Schmidtia pappophoroides	10%
Stipagrostis uniplumis	10%
Shrubs	%
Grewia flava	15%
Searsia tridactyla	5%
Senegalia mellifera_detinens	5%
Tarchonanthus camphoratus	5%
Ziziphus mucronata	10%
Total	100%
Diversity count	16

Table 15: The indigenous species re-establishment detailed specifications, parameters and management actions

The list of the most prominent bushveld species found on site is given below in alphabetical order

Species		
<i>Antheophora pubescens</i>	<i>Eragrostis echinochloidea</i>	<i>Pentzia calcarea</i>
<i>Aptosimum albomarginatum</i>	<i>Eragrostis lehmanniana</i>	<i>Pentzia incana</i>
<i>Aptosimum marlothii</i>	<i>Eragrostis porosa</i>	<i>Plinthus cryptocarpus</i>
<i>Aristida adscensionis</i>	<i>Eragrostis rigidior</i>	<i>Pteronia adenocarpa</i>
<i>Aristida canescens</i>	<i>Eragrostis rotifer</i>	<i>Rhigozum trichotomum</i>
<i>Aristida meridionalis</i>	<i>Eragrostis trichophora</i>	<i>Schmidtia pappophoroides</i>
<i>Aristida vestita</i>	<i>Grewia flava</i>	<i>Searsia ciliata</i>
<i>Asparagus bechuanicus</i>	<i>Helichrysum pumilio</i>	<i>Searsia pyroides</i>
<i>Asparagus cooperii</i>	<i>Helichrysum zeyheri</i>	<i>Searsia tridactyla</i>
<i>Asparagus larinicus</i>	<i>Hermannia minutiflora</i>	<i>Senegalia mellifera_detinens</i>
<i>Brachiaria marlothii</i>	<i>Hermannia stellulata</i>	<i>Setaria verticillata</i>
<i>Cenchrus ciliaris</i>	<i>Hermannia stricta</i>	<i>Sporobolus fimbriatus</i>
<i>Chloris virgata</i>	<i>Hermannia tomentosa</i>	<i>Sporobolus rangei</i>
<i>Dactyloctenium aegyptium</i>	<i>Heteropogon contortus</i>	<i>Stipagrostis ciliata</i>
<i>Digitaria eriantha</i>	<i>Jamesbrittenia atropurpurea</i>	<i>Stipagrostis hirtigluma</i>
<i>Digitaria seriata</i>	<i>Melinis repens_repens</i>	<i>Stipagrostis uniplumis</i>
<i>Ehretia rigida</i>	<i>Microchloa caffra</i>	<i>Stipagrostis uniplumis_neesii</i>
<i>Enneapogon cenchroides</i>	<i>Monechma divaricatum</i>	<i>Tarchonanthus camphoratus</i>
<i>Enneapogon desvauxii</i>	<i>Monechma genistifolium_australe</i>	<i>Themeda triandra</i>
<i>Eragrostis chloromelas</i>	<i>Monechma incanum</i>	<i>Ziziphus mucronata</i>
<i>Eragrostis curvula</i>	<i>Panicum coloratum</i>	
	<i>Panicum kalaharensense</i>	
	<i>Panicum maximum</i>	

Appendix B: Listed species

Species (Confirmed and expected)	Species of Conservation Concern	NCNCA Protected Species	NFA Protected Species
Albuca secunda	Transplant	Transplant	
Albuca setosa	Transplant	Transplant	
Ammocharis coranica	Transplant	Transplant	
Babiana bainesii	Transplant	Transplant	
Blepharis marginata		Transplant	
Boophone disticha	Transplant	Transplant	
Boscia albitrunca	Seed	Seed	Seed
Brunsvigia sp.	Transplant		
Bulbs_Others		Transplant	
Corbichonia decumbens		Transplant	
Crinum bulbispermum	Transplant		
Crinum foetidum	Transplant	Transplant	
Crinum minimum	Transplant	Transplant	
Dipcadi glaucum	Transplant	Transplant	
Dipcadi spp		Transplant	
Gymnosporia heterophylla		Seed	
Gymnosporia szyszylowiczii		Seed	
Harpagophytum procumbens	Transplant	Transplant	
Jamesbrittenia atropurpurea		Seed	
Kalanchoe brachyloba	Transplant		
Lachenalia sp.		Transplant	
Lampranthus sauvissimus	Transplant		
Lampranthus stipulaceus	Transplant		
Lessertia frutescens		Seed	
Nerine laticoma	Transplant		
Orbea knobelii	Transplant		
Orbea lutea	Transplant		
Ornithogalum montanum	Transplant		
Ornithogalum sp.		Transplant	
Orphanthera jasminiflora	Transplant	Seed	
Plinthus karoicus		Seed	
Plinthus sericeus		Seed	
Polygala seminuda	Transplant		
Ruschia hamata	Transplant		
Tarchonanthus obovatus	Transplant	Seed	
Vachellia erioloba	Seed		Seed
Vachellia haematoxylon	Seed		Seed