REVISED BOTANICAL ASSESSMENT

FOR THE

CLEARING OF VEGETATION TO DEVELOP ERF 145, ATLANTIS INDUSTRIAL AREA

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1. Purpose and Background to the Study

The proposed industrial development site required a botanical assessment in order to determine the potential impacts on the vegetation and to describe any areas of sensitivity. In addition the feasibility of an offset option was considered.

This botanical assessment was conducted by Nicolaas Hanekom who has 26 years' experience working as an ecologist for nature conservation organizations. He has extensive field experience and botanical knowledge, knowledge of Freshwater and wetlands ecology, is knowledgeable of the region in which they are working and exercises sound and unbiased scientific and professional judgment. He is a qualified Environmental Assessment Practitioner and a registered Professional Natural Scientist (Ecologist) with the SACNASP who holds a M. Tech, Nature Conservation from the Cape Peninsula University of Technology. This master's thesis focussed on the impact of different land uses on the Phytodiversity ("Botany/ plants") of the West Coast Strandveld in and around Rocherpan Nature Reserve.

He meets the legal requirements to act as a specialist on this project although his company is the Environmental Assessment Practitioner on the project. Regulation 13 of the Environmental Impact Assessment Regulations, 2014 as amended that take effect on 07 April 2017 regulate the general requirements for Environmental Assessment Practitioners (EAP) and specialist. The regulation states that:

An EAP and a specialist, appointed in terms of regulation 12(1) or 12(2), must-
(a) be independent;
(b) have expertise in conducting environmental impact assessments or undertaking specialist work as required, including knowledge of the Act, these Regulations and any guidelines that have relevance to the proposed activity;
(c) ensure compliance with these Regulations;
(d) perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the application;
(e) take into account, to the extent possible, the matters referred to in regulation 18 when preparing the application and any report, plan or document relating to the application; and
(f) disclose to the proponent or applicant, registered interested and affected parties and the competent authority all material information in the possession of the EAP and, where applicable, the specialist, that reasonably has or may have the potential of influencing-
(i) any decision to be taken with respect to the application by the competent authority in terms of these Regulations; or
(ii) the objectivity of any report, plan or document to be prepared by the EAP or specialist, in terms of these Regulations for submission to the competent authority; unless access to that information is protected by law, in which case it must be indicated that such protected information exists and is only provided to the competent authority.
(2) In the event where the EAP or specialist does not comply with subregulation (1) (a), the proponent or applicant must, prior to conducting public participation as contemplated in chapter 5 of these Regulations, appoint another EAP or specialist to externally review all work undertaken by the EAP or specialist, at the applicant's cost.

There is therefore no legal requirement that an independed specialist be appointed

to review this report as Nicolaas Hanekom meets the requirements as regulated in terms of regulation 13.

2. Terms of Reference

The following additional terms of reference were considered:

- Provide a description of the vegetation of the site and areas of sensitivity.
- Identify and describe botanical diversity patterns at community and ecosystem level (main vegetation type, plant communities in vicinity and threatened/ vulnerable ecosystems species), at species level (species of conservation concern, presence of alien species) and in terms of significant landscape features;
- Provide mitigation options with respect to the long-term management of vegetation affected.
- Comment on whether or not biodiversity processes would be affected by the proposed project, and if so, how these would be affected.
- Comply with DEA&DP's Guideline for Involving Biodiversity Specialists in EIA Processes, the Fynbos Forum's Ecosystem Guidelines for Environmental Assessment in the Western Cape (De Villiers et al. 2005) and Cape Nature's standard requirements.

3. Study Area

The property is situated inside the Atlantis industrial on the corner of Christopher Starke and Harry Alexander Crescent. The property consists of undeveloped industrial erf with Atlantis Sand Fynbos vegetation that differs in quality.

Approximately 1.6ha, the whole erf, will be cleared to develop on the erf.

4. Evaluation Method

The study area was visited on 30 May 2018 and 11 September 2018, and surveyed on foot. A combination of photographic records and sampling waypoints (using GPS) were used to record important features. The vegetation and study area was described in terms of general quality and degree of disturbance, sensitivity and conservation importance. Plant species were identified in the field or collected for identification. Potential impacts were measured against the following criteria:

- Conservation planning: GIS shapefiles of The City of Cape Town's Biodiversity Network (CCT BioNet) (2017) was used to show were Critical Biodiversity Areas (CBA's) fall in relation to the study area. The CCT BioNet is of high importance since it provides information on priority biodiversity areas and the associated category of importance.
- Ground-thruthing of CBA's is important since the sites may reflect a different scenario to the CCT BioNet.
- Ecosystem status: ecosystem status of the vegetation type was the gained using the List of Threatened Terrestrial Ecosystems (Government Gazette, 2011). The gazette listings are crucial to commenting on the level of sensitivity in relation to natural vegetation quantity and quality.
- Special habitats: the presence of rare or sensitive habitats such as wetlands and

dunes.

- Restoration potential and biodiversity corridors: degraded areas or alien-infested areas have the potential to be restored depending on the level of disturbance or transformation. Degraded and transformed areas may also be of importance if these areas link portions or remnants of good quality or highly threatened vegetation types.

5. The Vegetation

5.1. General description and context

Vegetation
According to the Vegetation Map of South Africa, Lesotho, and Swaziland (Mucina, Rutherford and Powrie, 2005) there are one vegetation units within the study area, which is Atlantis Sand Fynbos (ASF), a Critically Endangered ecosystem.

Biodiversity plans
The study area does fall within the City of Cape Town's Biodiversity Network (2017).

- **Critical Biodiversity category:**

Other Natural Areas

- **Critical Biodiversity Area Name:**

Unselected Natural Area: Good/Fair/Restorable

- **CBA Description**

Natural vegetation in Endangered, Vulnerable and Least Concern in good or restorable condition.

- **Significance**

Local significance. Will result in impaired ability to meet targets, given that higher categories will not always be achievable.

- **Objective**

Sustainable management within general rural land-use principles.

- **Actions**

Negotiable. Low priority, no urgency. Invasive alien control.

- **Compatible activities**

Until Bio Network is secured elsewhere, these areas may become NB if required as biodiversity offset sites. Higher impact activities could be considered on degraded portions. Vegetation in good condition should be subject to low impact activities only.

5.2. The vegetation of Erf 145

The natural veld to be cleared for develop is in a poor to moderate ecological condition. The western section was previously disturbed and evidence of soil disturbances is visible.

Photo 1: Ecological condition of the western section of the property

Photo 2: Ecological condition of the western section of the property

Almost 90% of the site is invaded by *Acacia saligna* and the Eucalyptus tree line next to the road has affected the ecological conditions of the vegetation on the edge of the site next to the road.

Photo 3: Ecological condition of the section next to road.

Photo 4: Ecological condition of the eastern section in moderate ecological condition.

The site and vegetation is identified as a Biodiversity Protection Spatial Planning Category (BPSPC) – Buffer 1 area on the approved Cape Town Spatial Development Framework as approved on 8 May 2012. This can however be mitigated by applying for a biodiversity offset area. The City of Cape Town BioNet (2017) identified the vegetation as unselected natural vegetation with a high to moderate restorability. Atlantis Sand Fynbos is classified as critically Endangered due to the high density of Threatened and Protected Species that occurs inside this vegetation type. It is probable that one or more threatened and protected species occurs on site. However, none were recorded during the site survey on 30 May 2018. The species recorded and present on site includes *Phylica cephalantha,*

Trichocephalus stipularis, *Thamnochortus cf. punctatus*, *Metalasia densa, Asparagus rubicundus, Lachenalia bulbifera, Ruschia sp; Oxalis sp.*

The endangered *Leucospermum parile* is known to occur in this vegetation type and area but was not recorded. The species is red flagged since the species is steadily declining and will most probably be listed as Critically Endangered in the future. Species associated with this population included *Willdenowia incurvata*, *Othonna coronopifolia*, *Arctotis stoechadifolia*, *Trichocephalus stipularis*, *Aspalathus cf . spinose*, *Metalasia muricata* and *Aspalathus ternate* (VULNERABLE).

A in season survey was conducted on 11 September 2018. No species of Conservation concern was recorded. The following additional species were recorded:
Ursinia anthemoides
Albuca sp
Dimorphotheca pluvialis
Diosma aspalathoides
Lampranthus sp
Metalasia muricata
Nemesia strumosa (Near threatened conservation status)
Oxalis obtuse
Rumex lativalvis
Ruschia sp
Scenecio arenarius
Trachyandra ciliata

6. Impact Assessment

The 'No Go' scenario and the construction implementation scenario (i.e. industrial development of the area) were assessed, with the 'No Go' scenario coupled with an offset proposal. No alternatives were provided.

6.1. No Go Alternative

In the case of the 'No Go' alternative, the proposed development would not go ahead. The status quo would consequently prevail with no immediate changes to the vegetation. In the medium to long term the site would most probably be subject to plant species diversity reduction due to the isolation of the site due to the fact that the ecological processes (e.g. fire management) cannot be implemented fully on site under the 'No Go' scenario.

6.2. Direct Impacts

Direct impacts are impacts occurring directly on the vegetation of the site that would result from the proposed development. In this instance there would be loss of critically endangered vegetation in poor to moderate condition. The impacts on the vegetation and habitat due to the proposed construction are considered according to the identified potential impacts which is:

- Loss of vegetation type, ecologically important species and species of conservation concern.

This impact refers to the potential disturbance to flora and faunal species located in the immediate vicinity of the proposed development. Critically endangered vegetation will be cleared.

7. Conclusions and Recommendations

The natural veld to be cleared for develop is in a poor to moderate ecological condition. The western section was previously disturbed and evidence of soil disturbances is visible. The City of Cape Town BioNet (2017) identified the vegetation as unselected natural vegetation with a high to moderate restorability. Higher impact activities could be considered on degraded portions. It is recommended that the clearing of the vegetation be allowed. The following mitigation measures must be implemented to accommodate for the loss of the critical endangered vegetation that will be lost:

- A biodiversity offset with City of Cape Town must be finalized in line with the biodiversity land banking component of the the Atlantis Industrial Incentives Scheme (AIIS). The AIIS is linked to the declaration of the Atlantis Special Economic Zone (SEZ) (Government Gazette 41100, 8 September 2017) for each hectare of vegetation loss. An offset area of 1 ha must be secured in the Dassenberg- Atlantis area within the Atlantis Industrial Incentive Scheme. The offset was reduced to 1 ha in order to accommodate for the historically soil disturbed area.
- A search and rescue of all translocatable species prior to commencement of construction must be done. A three month notice of commencement of

construction or vegetation clearing must be given to the City of Cape Town and CapeNature to arrange for search and rescue in the appropriate season.

8. References

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