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Attention: Ms. M. Guy

TECHNICAL MEMORANDUM

RE: COMMENT ON ENVIRONMENTAL SAFEGUARDING OF CONSERVATION AREAS AS DETERMINED BY THE NORTHERN CAPE CRITICAL BIODIVERSITY AREAS MAP

The Northern Cape Critical Biodiversity Areas (NCCBA) map (Figure 1) indicates that the study area, comprising of the proposed Lesaka PVSEF1 and PVSEF2 development footprint is located in areas defined as a Critical Biodiversity Area 1 (CBA1), Critical Biodiversity Area 2 (CBA2), Ecological Support Areas (ESA) and Other Natural Areas (ONA). Please see the definitions of these conservation areas in Table 2 of this memorandum.

The categorisation of these conservation areas, from an freshwater ecological perspective is based on the below criteria in Table 1.

Table 1: Aquatic criteria used in the categorisation of NCCBA conservation areas.

Category	Description
CBA1	<ul style="list-style-type: none">➤ National Freshwater Ecosystem Priority Area (NFEP) 1:500 000 recognised rivers and wetlands, which are priority Phase 1 Freshwater Ecosystem Priority Areas (FEPA) with a 70% conservation target; and➤ Rivers with intact riparian vegetation
CBA2	<ul style="list-style-type: none">➤ Prioritised FEPA wetland clusters; and➤ FEPA catchments
ESA	<ul style="list-style-type: none">➤ (NFEP) 1:500 000 recognised rivers not deemed as priority FEPA rivers but are larger rivers providing structure, ecosystem function and landscape linkage backbone for this region with a 60% conservation target; and➤ Other natural non-FEPA wetlands
ONA	<ul style="list-style-type: none">➤ Hantam Karoo and Western Bushmanland Klipveld➤ Large high value climate resilience areas

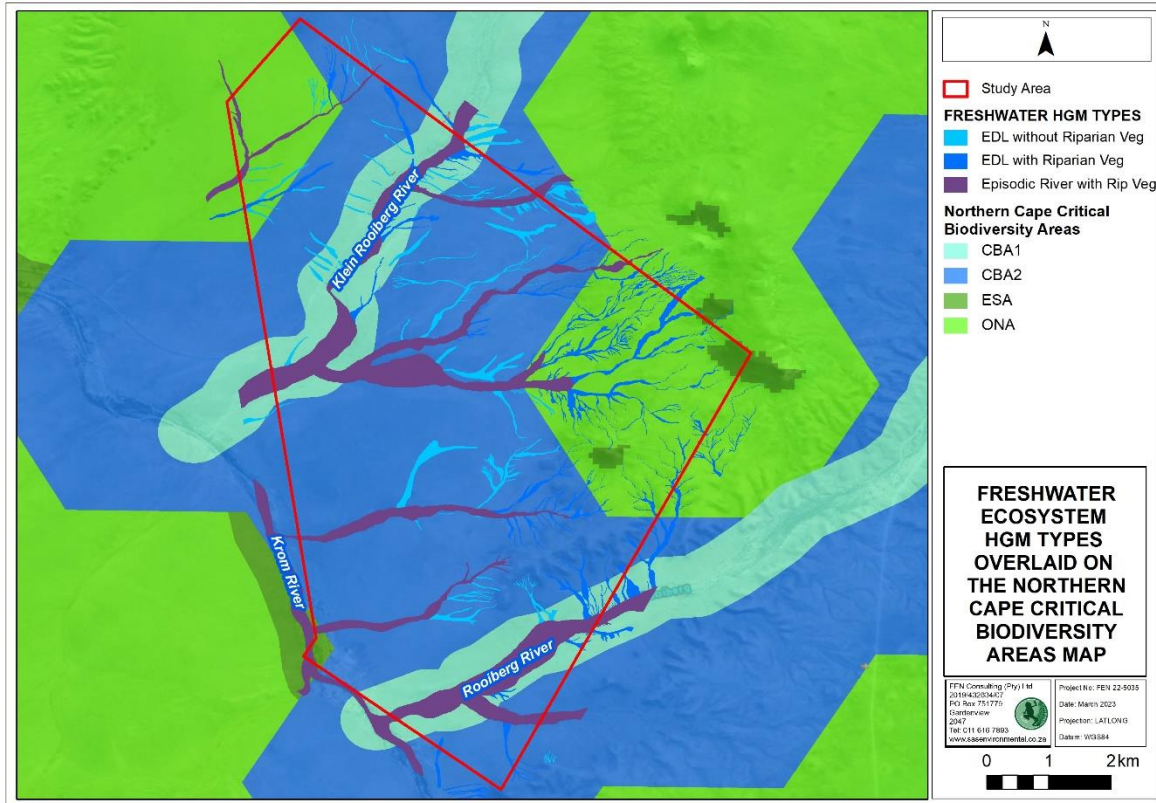


Figure 1: Freshwater Hydrogeomorphic Types (HGM) overlaid on the NCCBA map.

Table 2: Freshwater Ecosystem Conservation area definitions.

Category	Description
CBA1	<p>Areas that are required to meet biodiversity targets for species, ecosystems or ecological processes and infrastructure. These include:</p> <ul style="list-style-type: none"> • All areas required to meet biodiversity pattern (e.g. species, ecosystems) targets; • Critically Endangered (CR) ecosystems (terrestrial, wetland and river types); • All areas required to meet ecological infrastructure targets, which are aimed at ensuring the continued existence and functioning of ecosystems and delivery of essential ecosystem services; and • Critical corridors to maintain landscape connectivity. <p>CBA1s are areas of high biodiversity and ecological value and need to be kept in a natural or near-natural state, with no further loss of habitat or species. Degraded areas should be rehabilitated to natural or near-natural condition. Only low-impact, biodiversity-sensitive land uses are appropriate.</p>
CBA2	<p>In the maps, a distinction is made between CBA1s that are likely to be in a natural condition (CBA 1) and those that are potentially degraded or represent secondary vegetation (CBA 2). This distinction is based on best available land cover data, but may not be an accurate or current reflection of condition.</p>
ESA	<p>Areas that are not essential for meeting biodiversity targets, but that play an important role in supporting the functioning of PAs or CBA1s, and are often vital for delivering ecosystem services. They support landscape connectivity, encompass the ecological infrastructure from which ecosystem goods and services flow, and strengthen resilience to climate change. They include features such as regional climate adaptation corridors, water source and recharge areas, riparian habitat surrounding rivers or wetlands, and Endangered vegetation. ESAs need to be maintained in at least a functional and often natural state, in order to support the purpose for which they were identified, but some limited habitat loss may be acceptable. A greater range of land uses over wider areas is appropriate, subject to an authorisation process that ensures the underlying biodiversity objectives and ecological functioning are not compromised. Cumulative impacts should also be explicitly considered.</p>
ONA	<p>Areas that have not been identified as a priority in the current biodiversity spatial plan but retain most of their natural character and perform a range of biodiversity and ecological infrastructure functions. Although they have not been prioritised for meeting biodiversity targets, they are still an important part of the natural ecosystem. ONAs should be managed or utilised in a manner that minimises habitat and species loss and ensures ecosystem functionality through strategic landscape planning. These 'other natural areas' offer considerable flexibility in terms of management objectives and permissible land uses, but some authorisation may still be required for high impact land uses.</p>

It must be noted that no wetlands were identified within the study area, and thus the criteria for the designated CBA 2 areas within this study area is based solely on the presence of the FEPA catchment of the Rooiberg and Klein Rooiberg river catchments.

Given that the PVSEF1 and PVSEF2 proposed development footprints almost exclusively fall outside of the development setbacks of the delineated freshwater ecosystems except in the case of some Overhead powerlines routes, SEF 2 Buildable area 5 and the collector substations being located within 32m of some small drainage features, no change in the Present Ecological State (PES) Category of these freshwater ecosystems is deemed likely. This is provided that the mitigation measures as listed in the freshwater specialist report are strictly applied, with routine monitoring of freshwater ecosystems during the operational phase. For this reason development of the SEF within a CBA catchment is not deemed an unacceptable land use and can be considered for authorisation from a freshwater resource management point of view

We trust that this memorandum provides the requisite clarity with respect to the project location within conservation areas associated with watercourses.

Yours sincerely,

Digital documentation not signed for security purposes.

Stephen van Staden

(Pr. Sci. Nat.)

Director

FEN Consulting (Pty) Ltd