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betsy@sesc.netAttention: Mrs Betsy Ditcham**CONSULTATION IN TERMS OF THE NEMA FOR EVALUATION OF A PRE-APPLICATION
DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED CONSTRUCTION OF A PILOT
DEPOLYMERISATION PROCESSING PLANT ON PORTION 21 OF THE REMAINDER OF
THE FARM RHEEBOKSFONTEIN NO.142 IN MOSSEL BAY, WESTERN CAPE.****DEA&DP Reference #: 16/3/3/6/7/1/D6/17/0193/19**

CapeNature, as custodian of biodiversity in the Western Cape¹, would like to thank you for the opportunity to review the proposed Pre-application Basic Assessment Report (PreDBAR) and wish to make the following comments. Please note that our comments only pertain to the biodiversity related impacts and not to the overall desirability of the application.

The following information was extracted from the PreBAR and details the proposed preferred alternative scope of works, (Figure 1):

“Rooikat Recycling proposes to construct a Pilot Depolymerisation Processing Plant on Portion 21 of the Remainder of the Farm Rheeboekfontein No.142 in Mossel Bay. Rooikat Recycling are proposing to develop a robust, fit for purpose thermal depolymerisation technology consisting of depolymerization and separation sections. This technology will allow the treatment of domestic plastic and tyres at a large scale to produce a basket of fuels that can be successfully placed in the existing market. To demonstrate the technology, it is required to construct a pilot plant to demonstrate and refine the technology. A test/pilot facility that can process 10 to 20 tons a day of either

¹ Section 9, Western Cape Nature Conservation Board Act 15 of 1998

plastic or tyres, or a combination of both, is required. The data collected during the operation of the plant will be used to develop and optimize the technology. The plastic would not have to be separated into the different types of plastic and typically non-recyclable plastics could now be converted into fuel without adding strain on the environment. The process would be a closed loop system and the generated off gasses would be used internally for energy production. Two products would be produced, heavy fuel oil (HFO) and minimal amounts of carbon black (which is a substitute for coal and can be used as a pigment)."

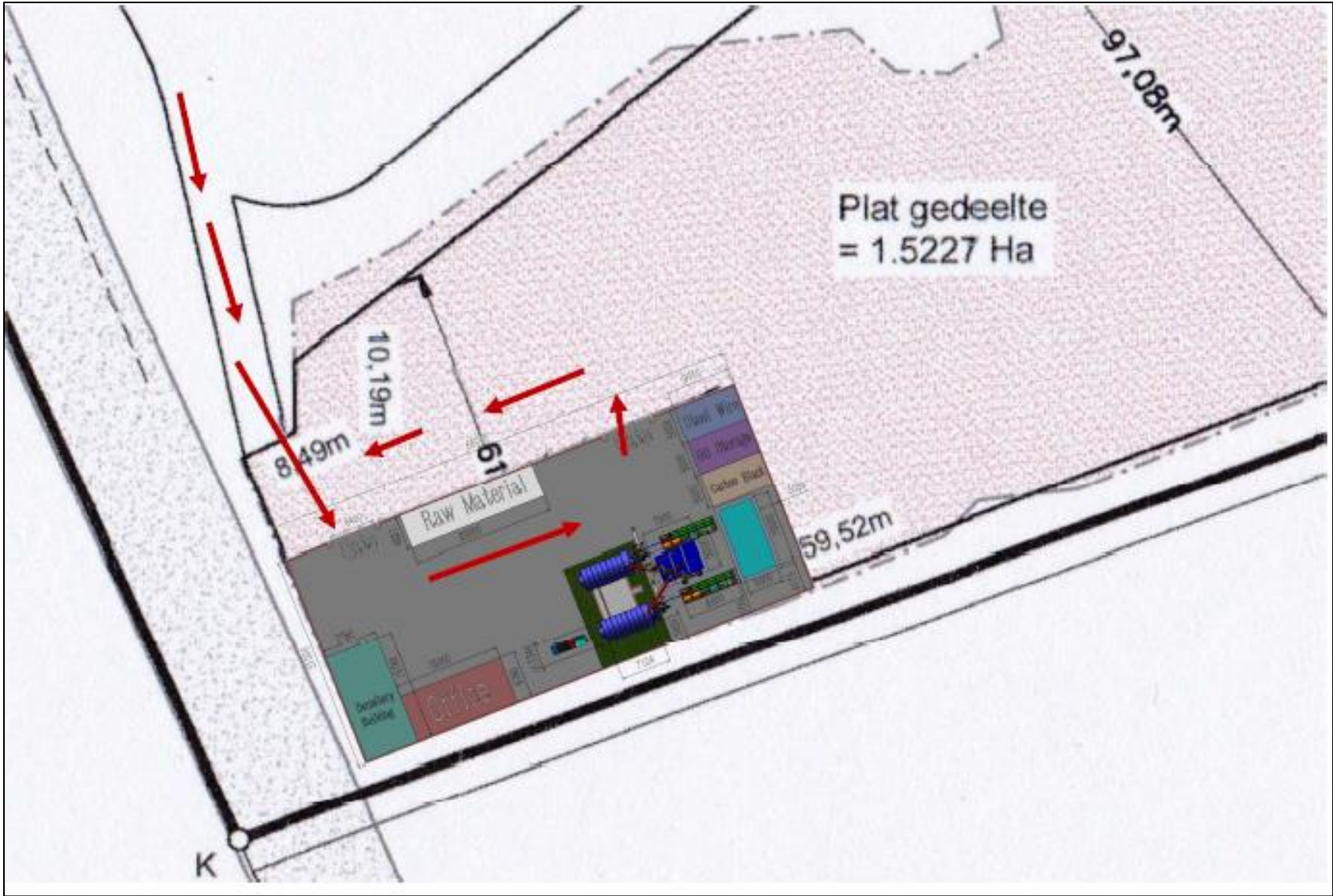


Figure 1: Map supplied by the consultant illustrating the proposed scope of works.

According to the National Biodiversity Assessment (2018)² the vegetation unit which dominates the farm is the **Critically Endangered** Garden Route Granite Fynbos (Hardly Protected) (Figure 2). This unit is listed as a threatened ecosystems in terms of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) (NEM: BA). The Garden Route Granite Fynbos contains 4 threatened plant species and 1% is formally conserved and 30% of its original extent remaining in a natural condition. The conservation target for this specific vegetation unit is listed as 23% of its original extent. It should be noted that for impact assessment purposes the vegetation should be considered as **Critically Endangered** Garden Route Granite Fynbos, but for NEMA listing notice purposes the 2011 vegetation units should be used.

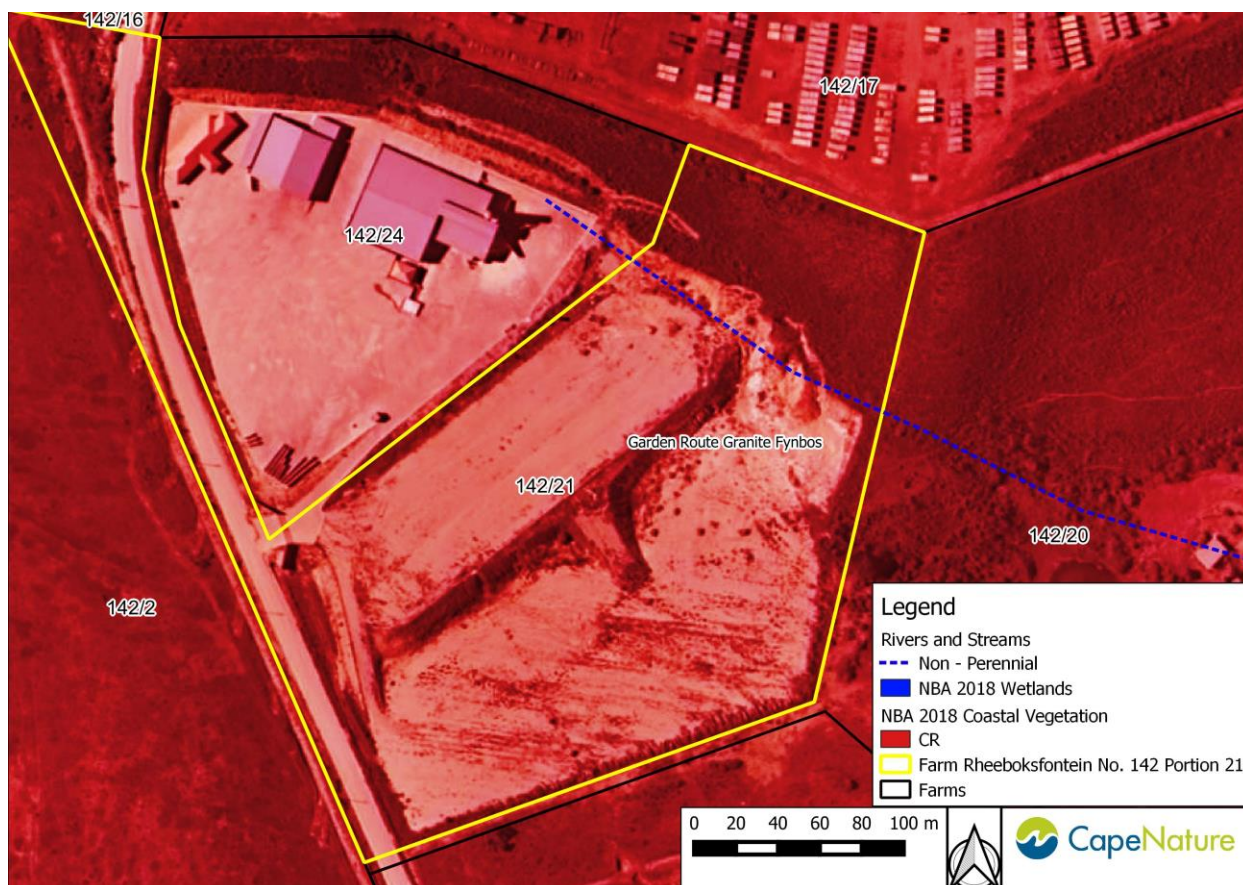


Figure 2: Map of the Farm showing the vegetation units, cadastral boundaries, National Freshwater Priority Area data and locations of streams and rivers.

There are no known streams or rivers or Freshwater Ecosystem Priority Areas (FEPAs)³ located within the proposed development footprint (Figures 1 and 2). In addition to which the proposed development will not result in the destruction of an habitat classified in terms of the Western Cape Biodiversity Spatial Plan (2017)⁴ (Figure 3).

² National Biodiversity Assessment (2018). *The status of South Africa's ecosystems and biodiversity. Synthesis Report. Synthesis Report.* South African National Biodiversity Institute, an entity of the Department of Environment, Forestry and Fisheries, Pretoria

³ Nel, J.L., Murray, K.M., Maherry, A.M., Petersen, C.P., Roux, D.J., Driver, A., Hill, L., Van Deventer, H., Funke, N., Swartz, E.R., Smith-Adao, L.B., Mbona, N., Downsborough, L. & Nienaber, S. (2011). Technical Report for the National Freshwater Ecosystem Priority Areas project. WRC Report No. K5/1801.

⁴ Pence, G.Q.K. 2017. The Western Cape Biodiversity Spatial Plan: Technical Report. In Prep. Western Cape Nature Conservation Board (CapeNature), Cape Town.

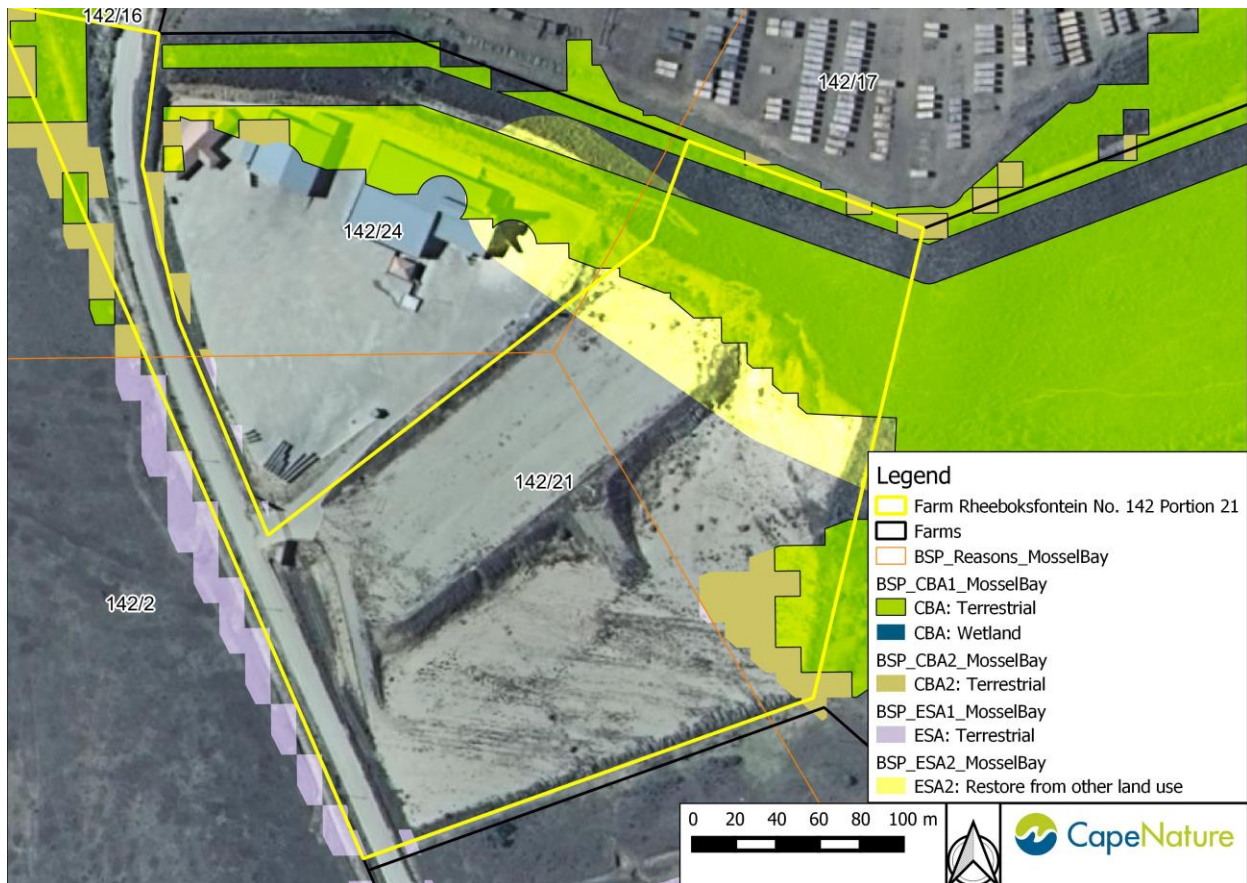


Figure 3: Map of the Erf showing the vegetation unit statuses shown on map, as per the Western Cape Biodiversity Spatial Plan (WCBS 2017).

Following a review of the application and appendices, and given the above mentioned sensitivity of the site, CapeNature would like to make the following comments/recommendations:

1. CapeNature recommends that given the status of the vegetation on site, any indigenous vegetation that requires removal should be rescued and used for rehabilitation purposes. CapeNature would like to reiterate that all endangered species or protected species listed in Schedules 3 and 4 respectively, in terms of the Western Cape Nature Conservation Laws Amendment Act, 2000 (Act No. 3 of 2000) may not be picked or removed without the relevant permit, which must be obtained from CapeNature. This is also to ensure that rescued plant material is accounted for and used in the rehabilitation or relocation process. To obtain such permits please contact the relevant Conservation Services Officials at the George CapeNature Regional Office or use the following website address <http://www.capenature.co.za/permits-information/>.
2. CapeNature would like to also remind the landowner that in terms of the Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983) (CARA), landowners must prevent the spread of alien invasive plants on the property. The level of alien infestation is therefore not be seen as reducing the sensitivity of a site, nor is the subsequent removal of alien vegetation from a property regarded as a mitigation measure due to this is being a legal requirement. Infestation by alien plants does not necessarily mean that an area is not important for biodiversity as some vegetation types are particularly prone to invasive alien infestation, but may recover when cleared of alien vegetation. The EAP needs to take cognisance of this fact

in all statements regarding mitigation and determination of the **No-Go Alternative impact**. The landowner is legally required to remove all alien plants from the farms and therefore the No-Go Alternative has to take this into account. Feasibility of such removal operations are not considered either, as there are state assisted programmes in place to assist landowners who do not have the financial resources to remove alien plant species.

3. In addition to CARA, in terms of the Alien and Invasive Species Regulations, NEM: BA, 2014, specific alien plant species (e.g. *Acacia cyclops*) are either prohibited or listed as requiring a permit; aside from restricted activities concerning, *inter alia*, their spread, and should be removed; without the use of heavy machinery (as this could trigger activities listed i.t.o. the EIA Regulations of 2014). All alien trees such as *Acacia cyclops* present at the property should be removed as they are a propagule source for further spread of invasive alien plants.
4. The Cape Floristic Region is largely a fire-dependent system and natural fire regimes must be maintained and managed in the landscape. The exclusion of fire from certain habitats will be considered unacceptable as this may ultimately cause the loss of species, as is the case in this instance. Where appropriate, the location of fire-breaks should be indicated and these fire-breaks may be considered part of the development footprint. Fire-breaks must be brush-cut and vegetation must not be completely removed. Brush-cutting under power lines must occur as infrequently as possible as brush-cutting will lead to loss of species diversity over time. A fire-risk assessment will also help inform an appropriate layout for developments adjacent to fire-prone vegetation.
5. An Operational Environmental Management Programme (OEMPr) should be compiled and appended to the Draft BAR. The OEMPr should specifically look at what measures must be implemented to ensure the protection the critically endangered vegetation from potential hazardous spills and contamination, especially in emergency scenarios. This plan should consider management of the remaining critically endangered CBA vegetation on the farm to ensure its integrity and protection from future development.
6. CBA regions are areas delineated that are in a natural condition and are required to meet biodiversity targets, for species, ecosystems or ecological processes and infrastructure (the various reasons). As stipulated in the Land Use Advice (LUA) Handbook (Pool-Stanvliet *et al.* 2017)⁵ although the Farm may have undergone a level of disturbance, this cannot be used as motivation for establishing of development within CBA or ESA areas. It should be noted that it is the landowner's responsibility to ensure his property is suitably maintained at a level consistent with LUA guidelines. The loss of the CBA on the site will therefore compromise conservation targets and the loss of ESA would compromise the CBA. CapeNature appreciates the effort the EAP has gone through to limit the development outside the extent of CBA, especially the compilation of a No-Go area map delineating the extent of the No-Go area.
7. If this development is deemed to be outside of the Mossel Bay Urban Edge or area, can the EAP comment on the applicability of this development in terms of the Western Cape Rural Development Guidelines which were published earlier this year.

⁵ Pool-Stanvliet, R., Duffell-Canham, A., Pence, G. & Smart, R. (2017). *The Western Cape Biodiversity Spatial Plan Handbook*. Stellenbosch: CapeNature.

8. Since this is a pilot plant, can the applicant not provide enough details to estimate of the size and details of the commercial plant and introduce the entire plant as part of a phased activity assessment, for a singular approval from the DEA&DP and relevant authorities. In this manner, the EAP can assess the entire application, and if the commercial plant's details are not completely accurate, an amendment to the Environmental Authorisation could even later be applied for. Reason behind this request from CapeNature, is that we would like to know that the rest of the CBA, on site will not be impacted by any further future proposed development on site? CapeNature can also not commit to not simply approving the commercial plant development, if it will in anyway impact the critically endangered vegetation which is also classified as CBA on the site.

9. In the conceptual illustrations of the facility there appears to be an open pond\pool system on the far eastern corner of the facility. Will this be an area open to the elements? If so, ideally this will need to be an enclosed structure and if that is not possible, can the applicant place a form of impermeable netting around it to prevent fauna such as birds and bats entering the separator? Lastly (if this is an open air separator) how does the applicant plant to mitigate for rainfall events?

To conclude, CapeNature reserves the right to revise initial comments and request further information based on any additional information that may be received.

Yours sincerely



Colin Fordham
Landscape Conservation Intelligence Manager – East

Copies to:

- (1) Miss Jessica Christie (DEA&DP)**
- (2) Mr Warren Manuel (Mossel Bay Municipality)**