

SCIENTIFIC SERVICES

postal	Private Bag X5014 Stellenbosch 7599
physical	Assegaaibosch Nature Reserve Jonkershoek
website	www.capenature.co.za
enquiries	Alana Duffell-Canham
telephone	+27 21 866 8000 fax +27 21 866 1523
email	aduffell-canham@capenature.co.za
reference	SSD14/2/6/1/9/6/364-33_Water_
	DamEnlargement_Driefontein
date	22 November 2017

Inge Erasmus EnviroAfrica PO Box 5367 Helderberg 7135 *By email*: admin@enviroafrica.co.za

Dear Ms Erasmus

RE: Proposed enlargement of Driefontein Dam on portion 33 of the Farm Rietvalley 364, Ceres – Background Information Document.

Thank you for providing us with a Background Information Document. We would like to be registered as a commenting authority for this project. We would also like to make the following initial comments:

Historically, the vegetation on the dam site was Ceres Shale Renosterveld which is currently listed as a Vulnerable ecosystem although it is steadily declining and almost qualifies as an Endangered ecosystem. Ceres Shale Renosterveld has hardly any formal protection. However, the site has been largely transformed by cultivation and there is no significant natural vegetation around the dam. Impacts on terrestrial ecology are therefore of low concern.

The dam does however appear to be instream and several stream lead into it. These streams have been determined as Ecological Support Areas category 2 (ESA2) which means that ideally they should be rehabilitated so that there is some ecological functioning. Please refer to the 2017 Western Cape Biodiversity Spatial Plan (WCBSP)¹. Consideration does therefore need to be given to ecological flow requirements. In addition, if storage capacity of winter runoff increases, abstraction from the streams and other sources should decrease or even stop during summer.

The dam area (13ha) seems relatively large for the volume (80 000m³). Is this the only design possible and has consideration been given to evaporation? Large shallow dams are more prone to water loss through evaporation than smaller, deeper dams.

We will provide additional comment once more detailed information has been supplied.

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

¹ Geographic Information System (GIS) layers, maps and the BSP handbook are available for download on the South African National Biodiversity Institute's BGIS website: <u>http://bgis.sanbi.org/Projects/Detail/194</u>. They can are also available on a viewing platform on the Western Cape Department of Agriculture's

CapeFarmMapper website: https://gis.elsenburg.com/apps/cfm/ The Western Cape Nature Conservation Board trades as CapeNature

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Yours sincerely

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Alana Duffell-Canham For: Manager (Scientific Services)