

MOTIVATION IN TERMS OF SECTION 27 OF THE NWA

Montagu Winery Wastewater Irrigation

Section 27 of the NWA, 1998 (Act No. 36 of 1998) sets out factors that should be considered by the DWS before issuing water use licenses. This section of the report will describe in detail the relevancy of the above-mentioned factors in relation to the water uses that are applied for and how the applicant, Montagu Winery (Pty) Ltd complies with them.

Montague Winery located in the town of Montagu produces wine for local markets. The winery produces approximately 11000 m³ of effluent from their wine processing that need to be disposed of. The effluent from the winery is treated at the on-site treatment works and then transported via a pipeline to a nearby farm, Elkana Boerdery. The farm uses the treated effluent to irrigate 2h of kikuyu grass and 1 ha of oats.

SECTION 27 (A) EXISTING LAWFUL USE

An application for General Authorisations was submitted to DWA on behalf of Montagu Winery (Pty) Ltd, to which a temporally authorisation was granted in March 2007, to dispose of the winery wastewater on Erf 1721. The winery has since made an arrangement with Elkana farm to pipe the wastewater to Erf 725 and the farm will use the wastewater for irrigation purposes. Erf 725 does not have any existing lawful uses associated with the property.

SECTION 27 (B) REDRESSING THE RESULTS OF PAST DISCRIMINATION

Section 27(B) of the NWA requires information regarding the contribution that will be made to rectify the results of past racial and gender discrimination.

Montagu Winery is currently employing 9 historically disadvantaged individuals.

SECTION 27 (C) EFFICIENT AND BENEFICIAL USE OF WATER IN THE PUBLIC INTEREST

Montagu Winery (Pty) Ltd commits to undertake its water uses in such a manner that the water uses are efficient and benefit the interests of the public. Montagu Winery (Pty) Ltd is applying for a water use license for the irrigation of approximately 11000 m³ of effluent from the wine processing. The effluent is first treated on site and then piped to Elkana farm where the treated effluent will be used for irrigation purposes. The farm uses the treated effluent to irrigate 2h of kikuyu grass and 1 ha of oats.

SECTION 27 (D) SOCIO-ECONOMIC IMPACT OF THE PROPOSED WATER USE

The winery employs 14 permanent and 41 seasonal staff. The Winery is also supplying social services and training programs for its employees. The winery receives 13 400 – 13 500 tons of grapes are received from local farmers, which in turn create work opportunities. The wine is exported or sold at the cellar and on the local market. The end use of the treated effluent is to pipe the effluent and use it for irrigation on a nearby farm. The water use activity is essential for the ongoing operation of the winery.

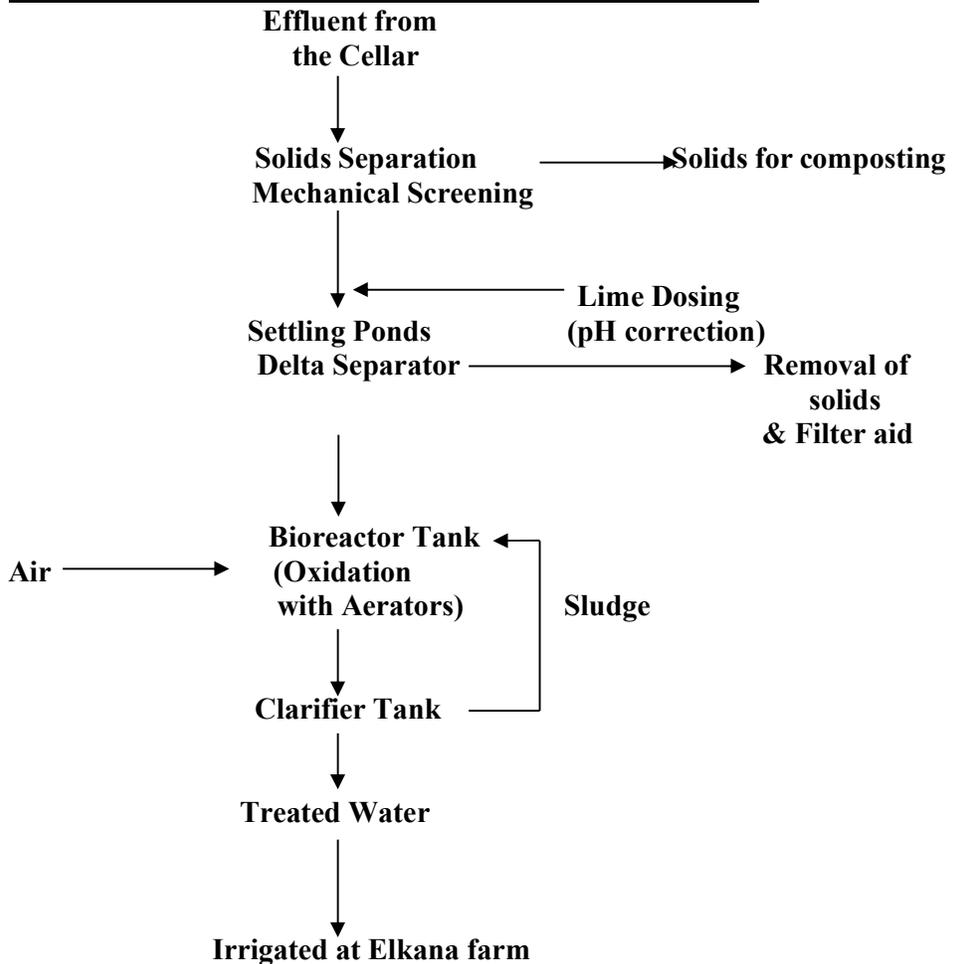
SECTION 27 (E) APPLICABLE CATCHMENT MANAGEMENT STRATEGY

The DWS is responsible for the National Water Resource Strategy for South Africa. According to the NWA, 1998 (Act No. 36 of 1998), a Catchment Management Agency should be established for each water management area. The Catchment Management Agency will then be responsible for the Catchment Management Strategy for each water management area. The aim of the Catchment Management Strategy is to set principles for allocating water to existing and prospective water users, taking into account the protection, use, development, conservation, management and control of water resources. The site falls within quaternary catchment H30B in the Breede-Gouritz catchment management area. The Breede-Gouritz Catchment Management Agency is responsible for this catchment.

SECTION 27 (F) IMPACT OF THE ACTIVITY ON WATER RESOURCE AND WATER USERS

The effluent produced on site is treated before being piped for irrigation. See below diagram for effluent treatment. In terms of the water quality of the treated effluent the pH, conductivity, and COD all exceed the water quality parameters in terms of the general authorization for irrigation with wastewater. The soil is however treated and stabilised using lime and then samples of the soil is tested to determine the soil quality. The pH of the wastewater is in the range of 4.8 while the soil pH after treatment is in the range of 7.

SCHEMATIC DIAGRAM OF WASTEWATER SYSTEM



SECTION 27 (G) CLASS AND RESOURCE QUALITY OBJECTIVES OF THE WATER RESOURCE

The South African Water Quality Guidelines are used for the Water Quality Objectives. The Minister of DWS is required to establish a classification system, and to determine the class and resource quality objectives for all or part of the resources considered to be significant. The determination of the preliminary class or resource quality objectives is the competency of the Department of Water and Sanitation.

The irrigation area does not contain any NFEPA wetland or critical biodiversity areas (CBAs), however an aquatic ecological support area was identified for the site. Ecological Support Areas are areas that are not essential for meeting biodiversity targets, but that play an important role in supporting the functioning of PAs or CBAs and are often vital for delivering ecosystem services.

SECTION 27 (H) INVESTMENT ALREADY MADE

A total investment of a few hundred thousand Rand was invested in the treatment system to improve the quality of wastewater. The plant would also regularly be upgraded, if necessary. Approximately R30 000 will be invested in terms of consulting fees. Approximately R26 000 has been invested since 2019 for the rehabilitation of the soil.

SECTION 27 (I) STRATEGIC IMPORTANCE OF THE WATER USE TO BE AUTHORISED

The site does not lie within a Strategic Water Source Area for surface or groundwater.

The operation of the winery is of strategic importance to the local community as well as the economy of the Western Cape.

SECTION 27 (J) WATER RESOURCE QUALITY REQUIREMENTS FOR THE RESERVE

The irrigation of the treated effluent will not impact on any natural watercourses. There is a small dam on site that will collect any excess wastewater from irrigation. The dam is off channel and therefore will not have any effect on natural watercourses. The irrigation and wastewater dam will be located further than 500 m from any borehole. It is expected that the water resource quality of the reserve will not be affected.

SECTION 27 (K) PROBABLE DURATION OF ANY UNDERTAKING FOR WHICH A WATER USE IS TO BE AUTHORISED

It is recommended that this licence be issued for the maximum allowed period in terms of the National Water Act, 1998.