

Background Information Document for the proposed Makwaria Fisheries Mozambique, *Oreochromis mossambicus* Tilapia aquaculture facility on Albasini Dam of Louis Trichardt Limpopo province, South Africa.

Growing public demand for a healthy tasty and affordable food is stimulating the industry. The decline in wild fish populations as a result of overharvest and water pollution has promoted the culture of farm-fresh that are grown in contaminant-free waters in indoor tank systems. Makwaria fisheries is a start-up company proposing to establish a medium sized aquaculture facility that will produce up to 200 tons of Mozambique tilapia, *Oreochromis mossambicus* species native to the area in cages in the Albasini Dam in rural Elim, Louis Trichardt in the Limpopo Province coordinates 23°10'66.55"S, 30°11'10.36"E. The dam is located 8 km north-east of Elim outside the town of Louis Trichardt Limpopo province, South Africa. The dam has a capacity of 28200 m³. The current water level is 750.8m, surface area of 3.498km² and the dam wall of 34 mm in height. The proposed dam depth varies from 20.0m to 2m, based on the geotechnical survey conducted by GEOLAND surveys/ Opmetings on the 6 march 2018. Cages will be placed at point A to E with the depth varying from 20.m to 18.5 m see (table 1 and Figure 1 below) whereas point F to G were not considered for the cages due to minimal depth.

Table 1: Albasini dam survey points

Points	System : WG 31°		Coordinates		Heights@ (m)	Depth(m)
	Y	X	Latitude (S)	Longitude (E)		
A	89960.230	2556735.869	23:06:27.7365 S	30:07:18.6881 E	732.251	18.5m
B	90457.358	2556736.720	23:06:27.6667 S	30:07:01.2198 E	731.903	18.9m
C	91496.560	2556586.142	23:06:22.5669 S	30:06:24.7368 E	730.856	20.0m
D	92196.926	2556310.209	23:06:13.4585 S	30:06:00.1875 E	731.382	19.5m

E	93211.640	2556268.512	23:06:11.8988 S	30:05:24.5429 E	731.670	19.2m
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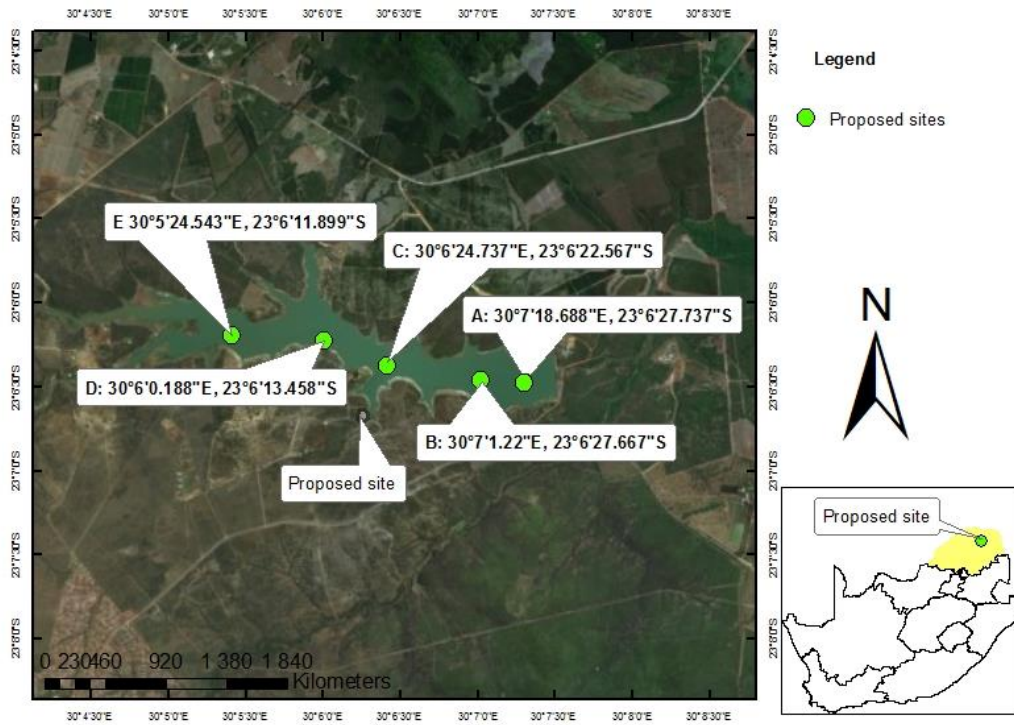


Figure 1: Survey water depth of the Albasini dam

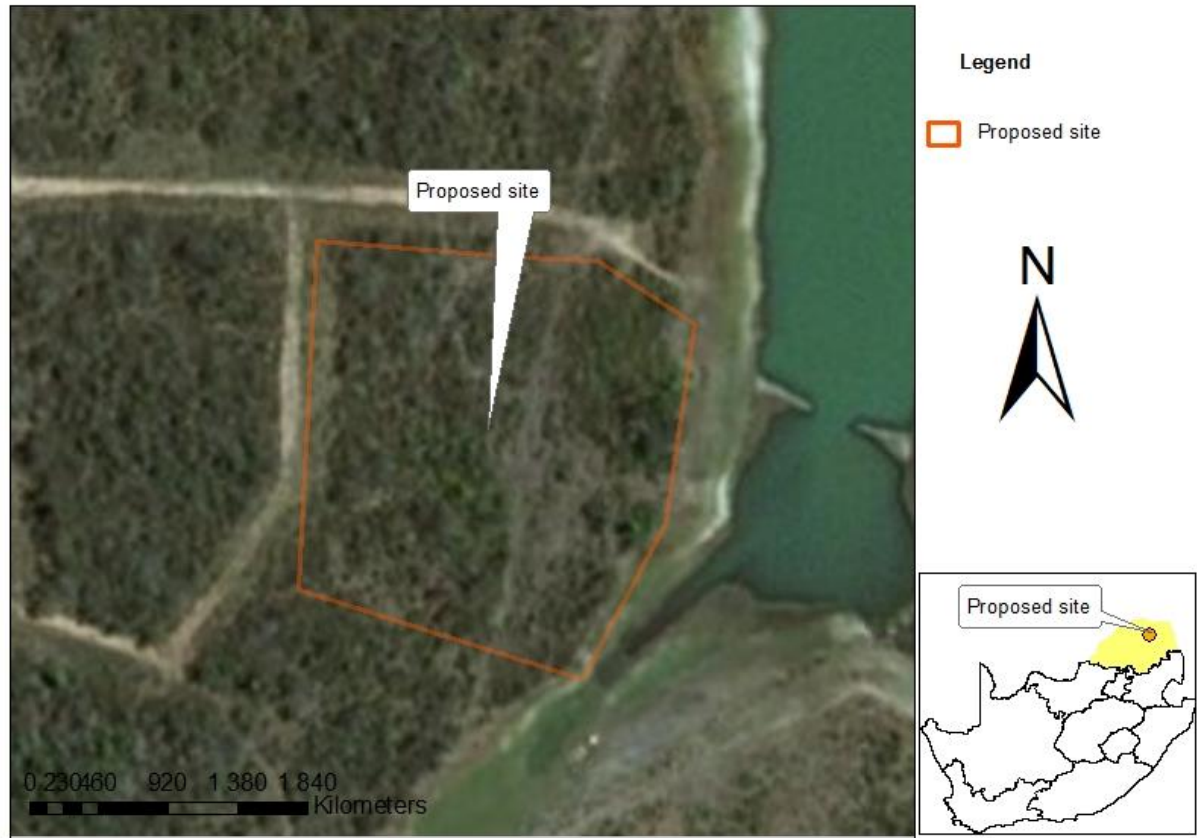


Figure 2: Proposed development site

Table 2: Points not considered for the proposed development

Points	System : WG 31°		Coordinates		Heights@ (m)	Depth(m)
	Y	X	Latitude (S)	Longitude (E)		
F	93733.498	2556145.309	23:06:07.7884 S	30:05:06.2337 E	748.051	2.88m
G	91676.610	2556821.598	23:06:30.1841 S	30:06:18.3596 E	739.999	10.84m
H	91686.745	2556886.660	23:06:32.2968 S	30:06:17.9894 E	741.683	9.20m
I	91659.631	2557067.725	23:06:38.1874 S	30:06:18.9032 E	745.111	5.75m

J	91657.196	2557119.822	23:06:39.8811 S	30:06:18.9775 E	746.099	3.76m
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The fish will be distributed in into six adjustable grow out tanks cages of varying diameters from 10 metres to 50 metre. A flow-through system will be applied for the proposed project. A flow-through system is an artificial channel used in aquaculture to culture aquatic organisms. Pure Mozambique tilapia, *Oreochromis mossambicus* fingerlings will be purchased at nearby hatcheries and put into the cages at varied densities for grow out. The fish will be fed artificial floating pallets manually by boat. Once the cages are ready for harvest the cages will be harvested and primary processing onsite. The fish will be transported offsite for further preparation until market ready.

The Mozambique tilapia, *Oreochromis mossambicus*, commonly known as blue kurper is native to southern Africa and is a popular fish species for aquaculture. It naturally occurs in coastal regions and the lower reaches of rivers in southern Africa, from the Zambezi River delta to Bushman River in the Eastern Cape. Cage culture typically involves floating structures made of steel, wood and plastic which is developed into the floating, flexible, plastic circle design cages most commonly used globally (DAFF, 2012b). Finfish cage culture types include nearshore gravity net cages or pens, and open water floating, submersible and/or semi-submersible cages. The Albasini dam is surrounded by communal land which is used for substance farming by the community and the water is shared with nearby communities for irrigation.

SUMMARY OF THE ENVIRONMENTAL ASSESSMENT PROCESS

Relevant notice and Activity No(s):	Activity No (s) (in terms of the relevant notice)	Description of each listed activity as per the Government Notice:
GN. R 324, 7 April 2017	Activity 12 (a)(ii)	The clearance of an area of 300 square metres or more of indigenous vegetation, except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. (a) In Limpopo (ii) Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such list, within an area that has been
GN. R 327, 7 April 2017	Activity 7	The development and related operation of facilities, infrastructure or structures for aquaculture of sea-based cage culture of finfish, crustaceans, reptiles, amphibians, molluscs, echinoderms and aquatic plants, where the facility, infrastructure or structures

		will have a production output exceeding 50 000 kg per annum (wet weight).
GN. R 327, 7 April 2017	Activity 27	<p>The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for—</p> <p>(i) the undertaking of a linear activity; or</p> <p>(ii) maintenance purposes undertaken in accordance with a maintenance management plan.</p>

Figure 3: Locality Map depicting the location of the Proposed Project

